

**Land to the rear of 17-29 Newcastle Road,
Reading**

**Written Scheme of Investigation for
Archaeological Evaluation**

Brett Property Developments Ltd

Report prepared by:
Ecus Ltd.
Unit 1 Woodlands
Business Village
Coronation Road
Basingstoke
RG21 4JX

September 2022

Ecus Ltd

Report to: **Brett Property Developments Ltd**

Report Title: **Land to the rear of 17-29 Newcastle Road, Reading -
Written Scheme of Investigation for Archaeological Evaluation**

Version: **V2.0**
Issue Date: **September 2022**
Report Ref: **18762**

Originated and
Updated By: 
Thomas Linington
Senior Heritage Consultant Date: 26.09.2022

Reviewed and
Updated By: 
Emily Taylor
Senior Heritage Consultant Date: 26.09.2022

Approved By: 
Andrew Norton
Regional Director Date: 26.09.2022

Prepared by:
Ecus Ltd.
Unit 1 Woodlands Business Village
Coronation Road
Basingstoke
RG21 4JX

Version	Author	Description	Date
V1.0	APN	Approve and Issue	04.08.2022
V2.0	ELT, TL & APN	Update following Client Review Approve and Issue	26.09.2022

The report and the site assessments carried out by Ecus on behalf of the Client in accordance with the agreed terms of contract and/or written agreement form the agreed Services. The Services were performed by Ecus with the skill and care ordinarily exercised by a reasonable Environmental Consultant at the time the Services were performed. Further, and in particular, the Services were performed by Ecus taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between Ecus and the Client.

Other than that expressly contained in the paragraph above, Ecus provides no other representation or warranty whether express or implied, in relation to the services.

This report is produced exclusively for the purposes of the Client. Ecus is not aware of any interest of or reliance by any party other than the Client in or on the services. Unless expressly provided in writing, Ecus does not authorise, consent or condone any party other than the Client relying upon the services provided. Any reliance on the services or any part of the services by any party other than the Client is made wholly at that party's own and sole risk and Ecus disclaims any liability to such parties.

This report is based on site conditions, regulatory or other legal provisions, technology or economic conditions at the time of the Service provision. These conditions can change with time and reliance on the findings of the Services under changing conditions should be reviewed.

Ecus accepts no responsibility for the accuracy of third party data used in this report.

Contents

1. INTRODUCTION	5
1.1 PROJECT BACKGROUND	5
1.2 PLANNING HISTORY, AIMS AND OBJECTIVES	5
1.3 SITE DESCRIPTION	6
1.4 REGULATORY AND POLICY CONTEXT	6
1.5 CONSULTATION	6
2. ARCHAEOLOGICAL AND HISTORICAL BASELINE	7
2.1 BACKGROUND	7
2.2 METHODOLOGY	7
2.3 ASSESSMENT OF SIGNIFICANCE	8
2.4 ARCHAEOLOGICAL AND HISTORICAL CONTEXT	9
2.5 HISTORIC MAPPING	10
2.6 PREVIOUS IMPACTS	11
2.7 ARCHAEOLOGICAL POTENTIAL	11
2.8 ARCHAEOLOGICAL IMPACT	12
3. METHODOLOGY FOR ARCHAEOLOGICAL EVALUATION	13
3.1 STANDARDS	13
3.2 AIMS AND OBJECTIVES	13
3.3 METHODOLOGY	13
3.4 EXCAVATION AND RECORDING METHODOLOGY	14
3.5 FINDS	15
3.6 ENVIRONMENTAL SAMPLING	15
3.7 HUMAN REMAINS	16
3.8 TREASURE	16
3.9 REPORT	16
3.10 DISSEMINATION	17
3.11 ARCHIVE	17
4. MONITORING	18
4.1 SUMMARY	18
4.2 PROJECT TEAM	18
4.3 PROJECT TIMEFRAME	18
5. HEALTH & SAFETY ARRANGEMENTS	19
5.1 GENERAL	19
5.2 ANTICIPATED HEALTH AND SAFETY CONSIDERATIONS	19
5.3 OTHER CONSIDERATIONS	20
6. COPYRIGHT	21
6.1 PAPER AND DIGITAL ARCHIVE	21
6.2 REPORT	21
7. REFERENCES	22
FIGURES	23
APPENDIX 1. REGULATORY AND POLICY CONTEXT	24
APPENDIX 2: BHER GAZETTEER	25
APPENDIX 3: SITE PHOTOGRAPHS	31
APPENDIX 4: OS MAPPING	33

TABLES

Table 1. Criteria for determining the significance of heritage assets	9
Table 2: Trench Information	14
Table 3: BHER Monuments	25
Table 4: BHER Events.....	29

FIGURES

Figure 1: Site Location	
Figure 2: Prehistoric Monuments recorded by BHER	
Figure 3: Romano-British and later Monuments recorded by BHER	
Figure 4: Archaeological Events recorded by BHER	
Figure 5: Trench Location	

PLATES

Plate 1: View across the Site towards the north	31
Plate 2: View across the Site towards the north east	31
Plate 3: Central part of the Site	32
Plate 4: Southern part of the Site (demarcated by the arrow) fronting Newcastle Road	32

1. Introduction

1.1 Project Background

- 1.1.1 This document presents an enhanced Written Scheme of Investigation (WSI) prepared by Ecus Ltd for Brett Property Developments Ltd (hereafter 'the Client') to be submitted as part of a forthcoming planning application for land to the rear of 17-29 Newcastle Road in Reading (hereafter 'the Site'). The Site is centred on National Grid Co-ordinate 472315 171711 (Figure 1).

1.2 Planning History, Aims and Objectives

- 1.2.1 In August 2021 a pre-application document was submitted to the Local Planning Authority (LPA), Reading Borough Council, for the demolition of an existing dwelling and the erection of nine dwellings with associate parking and landscaping to the rear of properties along Newcastle Road.
- 1.2.2 In October 2021 a pre-application response was received from the LPA (App ref. 211367/PREAPP). Within this response buried archaeology was addressed with the following comments included:

The site allocation Policy SR4B states that development on the site must take into account its archaeological significance. Policy EN2 (Areas of Archaeological Significance) requires that applications adequately assess and investigate sites of archaeological significance.

Berkshire Archaeology have reviewed the pre-application proposals and advise that based upon historic land uses the site is likely to be of archaeological significance.

The archaeological potential of this area is moderate – there are 22 monuments and findspots recorded in the Berkshire Archaeology Historic Environment Record within a 500 m radius of the site. The more significant sites include a Bronze Age/Iron Age cremation cemetery at Whitley Park Farm and Bronze Age, Iron Age, and Roman settlement activity at Reading Girls School. One-off finds include Palaeolithic to Neolithic flintwork finds, Iron Age pottery, Roman coins, and Medieval remains. Whilst there are no designated assets of national significance within that 500 m radius, this picture sums to a general background of settlement activity from nearly all periods with both local and regional significance. Thus, there is a likelihood that similar remains may be found at 17-29 Newcastle Road.

According to historic mapping the gardens to the rear of 17-29 Newcastle Road have not been built on in the post-medieval period, and so any archaeological remains which are present are likely to be well-preserved. The proposed development is likely to have a number of impacts on below ground archaeology. Therefore, in line with local and national planning policy, there is will be a need to assess the archaeological potential of the site in more detail through evaluation trenching, and, should remains be discovered, there may be a need for further archaeological work to mitigate any harm caused by the development.

- 1.2.3 Ecus Ltd have therefore been commissioned to produce an enhanced WSI to be submitted as part of the forthcoming planning application for the Site. The purpose of the enhanced WSI is to:
- provide a baseline of the archaeological resource;
 - assess the extent of previous impact/disturbance within the Site;
 - assess the potential for buried archaeological remains to survive within the Site and the significance of known or predicted buried archaeological remains considering their heritage interest; and
 - outline the scope and methodology of an archaeological evaluation, also known as trial trenching.
- 1.2.4 This enhanced WSI has been undertaken in accordance with national and local planning policy and sector standards and guidance. Where relevant this is referenced throughout this enhanced

WSI.

1.3 Site Description

- 1.3.1 The Site is located within Reading, c. 1.6 km from the town centre.
- 1.3.2 The Site is located north of Newcastle Road. The Site boundary encompasses no. 19 Newcastle Road, and part of the gardens of 18-29 Newcastle Road. A secondary building is located to the rear (north), orientated north to south. Both buildings are in residential use. As part of the proposals both buildings will be demolished to provide access into the Site.
- 1.3.3 The Site is c. 2,739 m² in extent and is roughly square in shape.
- 1.3.4 At the time of the site visit (July 2022) the majority of the Site comprised dense scrub. The southern extent of the Site was characterised by the existing built form and surrounding hardstanding and grounds. The gardens encompassed within the Site boundary are under grass.
- 1.3.5 The Site is bounded to the north by Cintra Park Playground, to the east by Newcastle Road Allotments and to the west by gardens associated with no. 3-9 Newcastle Road. The wider landscape is characterised by the townscape of Reading.
- 1.3.6 The Site is relatively level, lying c. 67 m above Ordnance Datum.

1.4 Regulatory and Policy Context

- 1.4.1 There is national legislation and guidance relating to the protection of, and development on, or near, important archaeological sites or historical buildings within planning regulations as defined under the provisions of the Town and Country Planning Act 1990. In addition, local authorities are responsible for the protection of the historic environment within the planning system. Further detail of the relevant, legislation, policy and guidance is provided in Appendix 1.

1.5 Consultation

- 1.5.1 In July 2022 consultation with the archaeological advisor to the LPA was undertaken via email to confirm the proposed number of trenches included in this WSI. This was agreed via email dated 15th July 2022.

2. Archaeological and Historical Baseline

2.1 Background

- 2.1.1 The following section identifies known and potential buried archaeological remains that may have the potential to receive effects from the proposals, compiled from sources listed below.
- 2.1.2 The following section should be read in conjunction with figures:
- Figure 2: Berkshire HER Prehistoric monument event data. The BHER records are assigned an ID number within the text for ease of reference;
 - Figure 3: Berkshire HER Romano-British and later monument data. The BHER records are assigned an ID number within the text for ease of reference; and
 - Figure 4: Berkshire HER event data. The event records are referenced by their BHER reference number in the text.

2.2 Methodology

Standards

- 2.2.1 This part of the WSI was undertaken in accordance with:
- Historic England's Historic Environment Good Practice Advice (GPA) in Planning Notes:
 - *The Historic Environment in Local Plans* (2015a);
 - *Managing Significance in Decision-Taking in the Historic Environment* (2015b); and
 - Historic England's Advice Note 12: *Statements of Heritage Significance: Analysing Significance in Heritage* (2019);
 - *Historic Environment* (revised July 2019), published by the Ministry Housing, Communities and Local Government (MHCLG), providing advice on enhancing and conserving the historic environment;
 - The Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2019); and
 - The Chartered Institute for Archaeologists' *Standard and Guidance for Historic Environment Desk-Based Assessment* (2020).

Data Sources

- 2.2.2 In order to inform this WSI, a spatial radius of 1000 m surrounding the Site was utilised.
- 2.2.3 Data used to inform Section 2.3 was obtained from:
- national datasets and the Berkshire Historic Environment Record (DHER);
 - British Geological Survey (BGS) for geological information;
 - Environment Agency LiDAR data;
 - Google Earth imagery;
 - historic mapping available online;
 - relevant primary and secondary sources including published and unpublished archaeological reports; and
 - a site visit undertaken in July 2022. All Site photographs are provided in Appendix 3.
- 2.2.4 A bibliography of documentary, archive, and cartographic sources consulted is included in Section 7.

BHER data

- 2.2.5 All of the spatial data held by the BHER for the study area was requested, assessed and analysed as part of this assessment. Whilst all data obtained from the BHER was reviewed as part of this assessment, not all data records are reproduced. Data from the BHER not reproduced comprises designated heritage assets data and locally listed buildings.
- 2.2.6 The BHER event data records are referenced by their DHER ID.
- 2.2.7 All BHER monument data records reproduced on Figures 2-3 has been assigned an ID number which is present on the figures and appears in the text.
- 2.2.8 BHER illustrated on the accompanying figures is listed in Appendix 2.

Limitations

- 2.2.9 This report is compiled using secondary information derived from a variety of sources, only some have been directly examined. The assumption is made that this data as well as that derived from other secondary sources, is reasonably accurate. In addition, the records held by the BHER represents a record of a wide range of information derived from historical sources and previous archaeological discoveries and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.
- 2.2.10 Due to the nature of the Site, LiDAR data was not reviewed for the purpose of this enhanced WSI.
- 2.2.11 Ordnance Survey (OS) mapping was reviewed as part of this assessment. Obtained from Emapsite, it is included in Appendix 4.
- 2.2.12 The scope of this enhanced WSI does not equate to a full Historic Environment or Archaeological Desk Based Assessment.
- 2.2.13 A site visit was undertaken as part of this enhanced WSI. The presence of dense vegetation hindered access and visibility and such observations are limited since archaeology can survive below-ground with no surface indications.

2.3 Assessment of Significance

- 2.3.1 The National Planning Policy Framework (NPPF 2021) recommends that, in determining applications, local planning authorities should require applicants to describe the significance of any heritage assets affected, including any contribution made by their setting (NPPF, 194).
- 2.3.2 The significance of heritage assets is defined in terms of their value to this and future generations because of their heritage interest, deriving not only from their physical presence, but also from their setting. This interest may be archaeological, architectural, artistic or historic (NPPF):
 - Archaeological interest: As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
 - Architectural and artistic interest: These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.
 - Historic interest: An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

(MHCLG 2019, Paragraph: 006 Reference ID: 18a-006-20190723).

- 2.3.3 The heritage interest of an asset's physical presence is assessed in terms of attributes identified in statutory criteria, general principles for selection (DCMS 2013 and 2018), selection guides published by Historic England, and regional research agendas.
- 2.3.4 The overall significance of a heritage asset is the sum value of its interest expressed within this report on a six-point scale of Very High, High, Medium, Low, Negligible and Unknown using the criteria presented in Table 1.

Table 1. Criteria for determining the significance of heritage assets

Heritage Significance	Criteria
Very High	World Heritage Sites and the individual attributes that convey their Outstanding Universal Value, or non-designated heritage assets of demonstrable international heritage interest.
High	Scheduled Monuments, Listed Buildings (Grade I, II*, II), Conservation Areas, Registered Historic Parks and Gardens (Grade I, II*, II), Registered Battlefields, Protected Wreck Site, or non-designated heritage assets of demonstrable national importance due to their heritage interest.
Medium	Locally Listed Buildings and Landscapes, or non-designated heritage assets of demonstrable regional importance due to their heritage interest.
Low	Non-designated heritage assets of demonstrably limited heritage interest.
Negligible	Buildings, landscapes or townscapes of such limited heritage significance it does not merit identification as a non-designated heritage asset. This is typically due to poor preservation, survival or restricted contextual associations.
Unknown	The significance of the heritage asset cannot be ascertained from available evidence.

2.4 Archaeological and Historical Context

Geology

- 2.4.1 The bedrock geology of the site comprises London Clay, a sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period (British Geological Survey 2022).

Previous Archaeological Investigations

- 2.4.2 The Site has not been subject to any previous archaeological investigation.
- 2.4.3 The BHER records a total of sixty previous archaeological investigations in the study area comprising both non-intrusive (desk-based) and intrusive works (watching briefs and excavation). The closest to the Site comprises an archaeological evaluation at 58-64 Northumberland Avenue (ERM733), located 126 m west of the Site. No archaeological deposits were encountered.
- 2.4.4 Where relevant, the results of these investigations has been discussed in further detail in the relevant sections below in order to inform the historic environment and archaeological potential of the Site.

Prehistoric

- 2.4.5 The majority of evidence of prehistoric settlement activity in Reading has been recorded on the outskirts of the modern town centre at sites such as Green Park, Reading Business Park and Caversham.

- 2.4.6 There is extensive evidence of prehistoric activity within the study area. Palaeolithic remains consist of a mixture of lithic scrapers (37 and 81) and hand axes (60 – 63) recorded across the northern parts of the study area. Mesolithic lithics (10, 32, and 59) and transept axes (1 and 11) have been recovered across the study area.
- 2.4.7 Similarly Neolithic remains have been recovered across the northern parts of the study area, consisting lithic implements (5 and 38), a flint arrowhead (3) and axe heads (2, 4, and 6 - 9).
- 2.4.8 Bronze Age activity is well represented across the entirety of the study area, consisting of both individual finds (12 -14, 16, 46, and 69) and features (41, 45, 47, 78 and 85). The closest of these to the Site comprises the remains of a Bronze Age settlement (79), c. 500 m south of the Site. Evidence of later activity in this area relates to Iron Age agricultural and land management practices (79).
- 2.4.9 Iron Age activity in the vicinity of the Site is represented by the discovery of a cup recovered c. 40 m north west of the Site in a gravel pit in 1905 (17). Further evidence of Iron Age activity, comprising a hoard and bronze fibula, was recorded in the north and north western extents of the study area (15 and 65).

Romano-British

- 2.4.10 Roman remains are recorded across the study area relating to settlement, stray finds and agricultural practices and land management regimes. As illustrated on Figure 3 the Roman remains have predominantly been recorded in two clusters, the first is between 300 and 850 m to the north west of the Site (18 – 20, 23 – 25, 48, 53) and the other between 700 and 980 m south east of the Site (27, 35, 68, 72).
- 2.4.11 The evidence from the Romano-British period is indicative of an open agricultural landscape interspersed with farmsteads and villas. The Site is considered likely to have formed part of the undeveloped landscape.

Early Medieval and Medieval

- 2.4.12 During the early medieval and medieval period, the Site lay partway between the settlements of Reading to the north and Whitley to the south (70). Both were first recorded in the eighth and seventh centuries respectively, and again in the Domesday Survey of 1086. Located part way between the settlements, the Site likely formed part of their immediate rural hinterland.
- 2.4.13 BHER data within the study area comprises arrow heads (30 - 31), a battle axe and spindle-whorle (29) and tiles (75).

Post-Medieval

- 2.4.14 In the post-medieval period Reading expanded southward. Post-medieval data records on the BHER within the study area relating to settlement activity (71 and 86), industry (40 and 67), and a turnpike (58).

Twentieth Century

- 2.4.15 Development of the study continued throughout the twentieth century, including the establishment of the residential development along Newcastle Road in the interwar years. The house within the southern part of the Site forms part of this development, with the remainder of the Site forming its garden. No evidence of subsequent development of the garden has been observed.

2.5 Historic Mapping

- 2.5.1 The earliest mapping consulted is the 1839 Tithe Map (not reproduced¹). The Site is shown as located across plots 143a, 151 and 161. Plots 143a and 151 were in the ownership of Sir William George Milman, Plot 161 in the ownership of John Alliston & Thomas Bros. Plot 143a was recorded as 'garden', Pot 151 as 'arable', and Pot 161 as 'pasture'. It should be noted later OS mapping

¹ Viewed via <https://www.thegenealogist.co.uk/>

shows the Site only being located in the southern most of the three plots (Plot 162), whether this is through boundary changes of an error in mapping is unclear, however the second is considered the more likely).

- 2.5.2 The 25" OS map of 1879, shows no great change to the Site.
- 2.5.3 The 1899 25" OS map shows the Site forming part of allotment gardens with a track running along the garden's northern perimeter passing through the Site.
- 2.5.4 The southern expansion of Reading is first shown on the 1911 25" OS map. Northumberland Avenue is shown to the west of the Site, and the first properties have been constructed along it. The Site continues to be located in allotments.
- 2.5.5 By 1932, Newcastle Avenue has been established to the immediate south of the Site; the Site forms part of the plot to number 21 Newcastle Avenue, and the gardens of it and the adjoining properties.
- 2.5.6 The Site remains largely unchanged until 2003, when the numbering of the street appears to change, with the property within the Site being assigned Number 19 Newcastle Road.

2.6 Previous Impacts

- 2.6.1 Previous impacts within the Site which are likely to have caused disturbance are associated:
 - agricultural activity;
 - horticultural activity; and
 - construction groundworks associated with residential development and installation of services/utilities.

2.7 Archaeological Potential

- 2.7.1 There are no designated archaeological remains (i.e. Scheduled Monuments) within the Site.
- 2.7.2 The available data reviewed suggests that the potential of the Site is as follows:
 - low to moderate potential for prehistoric remains most likely comprising stray finds, remains associated with Bronze Age and Iron Age farming and settlement activity surviving as pockets between later disturbance should not be ruled out. Any such remains would constitute non-designated heritage assets of low to medium heritage significance;
 - low to moderate potential for Romano-British remains comprising stray finds and remains associated with agricultural and land management practices. The presence of sedentary remains associated with a small farmstead surviving as pockets between later disturbance should not be ruled out. Any remains would constitute non-designated heritage assets of low to medium significance;
 - low potential for early medieval and medieval remains associated with agricultural and land management practices. These would comprise non designated heritage assets of low heritage significance;
 - high potential for post-medieval and twentieth century remains relating to the nineteenth century allotment activity and twentieth century residential development. Nineteenth century remains associated with allotment activity would likely be considered non designated heritage assets of negligible heritage significance. Remains associated with the twentieth century development of the Site hold no heritage significance.
- 2.7.3 Whilst the archaeological potential has been identified above, this must be considered in relation to the extent of previous impacts which the Site has been subject to. These are likely to have compromised archaeological remains, if/where present, although the full extent of such impacts is currently unknown.

2.7.4 Taking the above into account, the Site is considered to have a low to medium archaeological potential for remains of negligible to medium heritage significance.

2.8 Archaeological Impact

2.8.1 Any direct physical impact to archaeological remains within the Site, if/where present, would primarily result from groundworks associated with construction. On-site activities which are likely to affect the archaeological resource could comprise the following:

- pre-construction impacts associated with demolition and ground investigation works;
- construction groundworks, including stripping and excavation associated with the foundations;
- ground reduction/landscaping; and
- excavation of new service trenches and drainage (including soakaways), as required.

3. Methodology for Archaeological Evaluation

3.1 Standards

- 3.1.1 The project will conform to the current national guidance as set out in the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Evaluation* (CIfA 2020a); *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA, 2020b); and *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA, 2020c).
- 3.1.2 The project will also confirm with Historic England's *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (2015c).

3.2 Aims and Objectives

- 3.2.1 The specific aims of the evaluation are to:
- to identify and record any archaeological deposits, structures or built fabric within the identified areas of interest;
 - to determine the extent, condition, character, significance and date or any encountered or exposed archaeological remains;
 - to recover artefacts disturbed by the site works; and
 - to prepare a comprehensive record of and report on archaeological observations during the site work.
- 3.2.2 The objective of the project are:
- to establish whether prehistoric or Romano-British remains survive within the Site;
 - to determine whether remains associated with early medieval and medieval agricultural activity survive within the Site;
 - to determine whether remains associated with nineteenth century allotment activity survive within the Site; and
 - to contribute to and improve the understanding of the historic environment in this part of Reading.

3.3 Methodology

General

- 3.3.1 All work will be undertaken by experienced Ecus staff who are corporate members of the CIfA or who demonstrably work to an equivalent standard for fieldwork.
- 3.3.2 Ecus will ensure that contracts are in place, and that availability is confirmed, with external specialists to cover all necessary processing, conservation and specialist analysis through assessment and analysis stages of the project.

Trench locations

- 3.3.3 A trenching plan has been devised to maximise the retrieval of archaeological information and to ensure that the significance of the archaeological resource is understood to a level of detail proportionate to its importance (Figure 5). Two trenches measuring 15 m by 1.8 m, and two trench measuring 20 m x 1.8 m will be excavated, excavating 5% of the overall site area. The location of the trenches is summarised in Table 2.

Table 2: Trench Information

Trench Number	Approximate Central Location (NGR)	Orientation	Length (m)
1	472307, 171715	North South	20
2	472329, 171735	North South	15
3	472328, 171712	East West	20
4	472310, 171736	East West	15

- 3.3.4 The location of the trenches has been designed to evaluate the archaeological potential of the garden area to the north of the existing residential building fronting Newcastle Road.
- 3.3.5 The centre end point of each trench will be located on the ground/recorded using differential Global Positioning System (dGPS) technology or hand-measured to an accuracy of ± 0.1 m.
- 3.3.6 Each trench will be scanned with a cable avoidance tool (CAT) prior to excavation and if necessary rescanned at subsequent intervals.
- 3.3.7 The trenches will be excavated using a mechanical excavator fitted with a toothless ditching bucket of suitable width under continuous archaeological monitoring.
- 3.3.8 Soil overburden will be removed in layers of up to 300 mm thickness to the top of the first archaeological horizon or the level of natural geology, whichever is reached first. The depth of each layer will be determined by the supervising archaeologist.
- 3.3.9 Excavated topsoil and subsoil will be temporarily stored in separate piles, alongside the trenches and set back at least 1 m from the edges of excavated trenches.
- 3.3.10 Each layer will be examined sufficiently to determine whether archaeology is or is not present, and thereby also determine whether machining will recommence or cease.
- 3.3.11 The finished stripped surface will be machined to a condition which is suitably 'clean' for archaeological recording to commence, and hand cleaned if necessary.
- 3.3.12 If necessary both ends of each trench will be ramped to allow safe ingress and egress.
- 3.3.13 Plant will not be allowed to track within excavated trenches prior to reinstatement.

3.4 Excavation and Recording Methodology

- 3.4.1 All archaeological deposits are to be recorded using a continuous numbered context system on a pro-forma recording system in accordance with industry standards. The written record is to be hierarchically based and centred on the context record. Each context record will fully describe the location, extent, composition and relationship of the subject and will be cross-referenced to all other assigned records.
- 3.4.2 Archaeological features will be sampled sufficiently to characterise and date them. However, the following strategy will be employed as a typical sample level for excavated features:
- 50% (by plan area) of each post hole;
 - 50% (by plan area) of each pit; and
 - 20% (by plan area) of each linear feature (minimum 1m sample); and
 - 100% of ditch terminals.
- 3.4.3 Excavated features will be surveyed by means of a differential Global Positioning System (dGPS)

or hand-measured and recorded on at least one detailed plan at 1:50 or 1:20 scale and/or one section at 1:20 or 1:10. Drawings will be made in pencil on permanent drafting film.

- 3.4.4 The spot height of all principal features and levels shall be established in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations will be annotated with spot heights as appropriate.
- 3.4.5 A full photographic record will be maintained, using a digital camera equipped with an image sensor of not less than 10 megapixels. Digital images will be subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set. Output will be in TIFF/JPEG format. Digital records created as part of the project should comply with specific data standards (Historic England 2015b).
- 3.4.6 The photographic record will include both general and feature specific photographs and a photographic scale (including north arrow) will be included in detailed photographs. The photographic record shall be accompanied by a photographic register detailing as a minimum feature number, location, and direction of shot.

3.5 Finds

- 3.5.1 Finds will be treated and cleaned in accordance with the relevant guidance given the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Evaluation* (2020a) excepting where they are superseded by statements made below.
- 3.5.2 Reading Museum will be contacted prior to the commencement of fieldwork and contacted for a mid-project review following the completion of fieldwork to revise basic information about the archive, and to agree a policy for retention, at which time a museum accession number will be assigned to the archive.
- 3.5.3 All artefacts from excavated contexts will be retained and recorded by context, except those from features or deposits of obviously modern date. In such circumstances, sufficient artefacts will be retained in order to elucidate the date and/or function of the feature or deposit. Any earlier residual artefacts of potential archaeological/historical value from modern features will be retained.
- 3.5.4 All finds and samples will be exposed, lifted, processed, cleaned, conserved, marked, bagged and boxed in accordance with the requirements of the receiving museum.
- 3.5.5 Any artefacts requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).

3.6 Environmental Sampling

- 3.6.1 The development of an appropriate sampling strategy will depend upon the survival and condition of the deposits identified. If necessary the Historic England Regional Science Advisor will be consulted for site-specific guidance at the earliest possible opportunity. In general terms, it is anticipated that the following strategies will be followed.
- 3.6.2 Bulk environmental soil samples for plant macro-fossils, small animal and fish bones and other small artefacts will be taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples will be undertaken in accordance with Historic England guidelines (Historic England 2011).
- 3.6.3 If industrial activity of any scale is detected, industrial samples and process residues will also be collected. Separate samples (c. 10 ml) will be collected for micro-slugs (hammer-scale and spherical droplets).
- 3.6.4 The residues and sieved fractions of the bulk environmental soil samples will be recorded and retained with the project archive. For charred material, bulk samples of 40-60 litres in volume will be taken for processing by flotation. All samples will be floated on a 250-300 mm mesh and the heavy residues washed over a 0.5-1 mm mesh. The heavy residues will be scanned with a magnet to recover micro-slugs. A statement on the environmental potential of excavated deposits will be

appended to the final report. Samples identified of further analysis will be fully processed.

3.7 Human Remains

- 3.7.1 In the event of discovery of any human remains, it is proposed that they will be left *in situ*, covered and protected until the Client, Coroner and the archaeological officer to the LPA have been informed. Where groundworks will unavoidably disturb them they will be fully recorded, excavated and removed from the Site subject to compliance with the relevant Ministry of Justice Licence which will be obtained by under the Burial Act 1857.
- 3.7.2 Should it be necessary to excavate human remains, all excavation and post-excavation will be in accordance with the standards set out in ClfA *Technical Paper 13 Excavation and post-excavation treatment of cremated and inhumed remains* (McKinley and Roberts 1993). The final placing of human remains following analysis will be subject to the requirements of the Ministry of Justice Licence.

3.8 Treasure

- 3.8.1 All finds identified in the Treasure Act (1996) and the Treasure (Designation) Order (2002) as being treasure will be recorded, removed to a safe place and reported to the local Finds Liaison Officer or Coroner according to the procedures relating to the Act. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

3.9 Report

- 3.9.1 Following the completion of the final fieldwork element, a full report setting out the results will be prepared and submitted to the Client who will submit the report to the archaeological officer to the LPA for approval.
- 3.9.2 The report will be prepared in accordance with the guidance given in the Chartered Institute for Archaeologist's *Standards and guidance for archaeological evaluation* (2020a) except where superseded by statements below.
- 3.9.3 The report will contain, at a minimum, the following:
- A non-technical summary;
 - Introduction;
 - Planning background including relevant references;
 - Relevant historical and archaeological background;
 - Geology and topography of each intervention site;
 - Research aims and objectives;
 - Methodology of site-based and off-site work;
 - Results of archaeological evaluation, including specialist reports where relevant;
 - Plans, sections and photographs as appropriate;
 - Assessment of the results against the original expectations;
 - Statement of potential of the archaeology;
 - Conclusions and if required recommendations for an appropriate mitigation strategy;
 - Publication and dissemination proposals, if relevant at this stage;
 - Archive details, including date of deposition and deposition statement;
 - Bibliography;

- Acknowledgements;
- Detailed context index; and
- OASIS form.

3.10 Dissemination

- 3.10.1 Once approved the report will be issued as a final document, and a hard copy and PDF (of PDF/A standard) will be submitted to the BHER for file within two months of completion.
- 3.10.2 Details of the Site will be submitted online to the OASIS (Online Access to the Index of Archaeological Investigations) database within two months of completion.
- 3.10.3 Publication of the results, at least to a summary level (to a relevant journal) and beyond if justified, shall take place in the year following the archaeological fieldwork.

3.11 Archive

Physical Archive

- 3.11.1 The site archive will be deposited with Reading Museum within six months of the completion of fieldwork, subject to any additional stages of archaeological mitigation.
- 3.11.2 The archive will be compiled following the processes set out in *Reading Museum Procedures For Archaeological Archives* (Reading Museums 2016).
- 3.11.3 Before work begins on Site Ecus will contact the landowner to endeavour to reach an agreement in principle regarding the deposition of finds.
- 3.11.4 A digital, paper and artefactual archive will be prepared, consisting of all primary written documents, plans, sections, photographs and electronic data arising from the archaeological monitoring in accordance to industry standards (ClfA 2020c). This will be offered to the relevant archive for deposition.
- 3.11.5 All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive (see above). If any specialist assessment and further analysis is required of artefactual or environmental material, an appropriate specialist will undertake the work.
- 3.11.6 At the start of work (immediately before fieldwork commences) an OASIS online record (<http://ads.ahds.ac.uk/project/oasis/>) will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the BHER / Archaeological Data Service (ADS). This will include an uploaded .pdf version of the assessment report and any subsequent reports (a paper copy will also be included within the archive).

Digital Archive

- 3.11.7 If appropriate a digital archive will be deposited with the ADS and made publicly accessible. The digital archive must be compiled in accordance with the standards and requirements of the ADS, which may be accessed through the ADS website.

4. Monitoring

4.1 Summary

- 4.1.1 The archaeological officer to the LPA will be informed at least 10 working days prior to the commencement of fieldwork.
- 4.1.2 Access will be permitted to the archaeological advisor to the LPA to monitor any fieldwork, as well as the progress of any agreed post-fieldwork analysis and reporting programmes.
- 4.1.3 The work shall be carried out by appropriately qualified and experienced Ecus staff. Details of staff and their relevant experience will be discussed and agreed prior to the work being carried out. A minimum of one week's notice of the commencement of fieldwork will be given to the archaeological advisor in order that arrangements for monitoring the fieldwork may be made.
- 4.1.4 An Ecus project manager will be responsible for monitoring the works, on behalf of the Client, to ensure compliance with the agreed WSI. They will provide regular updates on progress to the archaeological advisor, and the Client.
- 4.1.5 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stage of trial trenching and/or so that the Site can be inspected when fieldwork is near to completion but before any trenches have been backfilled.
- 4.1.6 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and the archaeological advisor to the LPA and the Client will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation *in situ* as appropriate.

4.2 Project Team

- 4.2.1 All work is to be undertaken by Ecus who employ experienced staff who are corporate members of the ClfA or who demonstrably work to an equivalent standard for fieldwork.
- 4.2.2 Ecus will ensure that contracts are in place, and that availability is confirmed, with external specialists to cover all necessary processing, conservation and specialist analysis through assessment and analysis stages of the project.
- 4.2.3 As this enhanced WSI has been submitted to inform a planning application, a timeframe for the fieldwork to commence is currently not available.

4.3 Project Timeframe

- 4.3.1 Demolition of 17 Newcastle Road and removal of all existing built form is required to facilitate access into/around the Site. In its current character and appearance there is a very limited area for archaeological investigation.
- 4.3.2 Given that access to the Site for a 360° excavator is currently restricted by the presence of 17 Newcastle Road, it is considered likely that the archaeological works will be undertaken following approval of the planning application and demolition of the existing built form.
- 4.3.3 The archaeological work would therefore be undertaken as pre-commencement works rather than pre-determination.
- 4.3.4 The need for archaeological work to inform the outcome of the planning application is not considered necessary on this Site. The buried archaeological resource can be addressed by a suitably worded condition and programme of evaluation as outlined in this WSI.

5. Health & Safety Arrangements

5.1 General

- 5.1.1 Health and Safety considerations will be of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times.
- 5.1.2 All work will be carried out in accordance with the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety Regulations 1992, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time for the fieldwork.
- 5.1.3 A Risk Assessment and Method Statement (RAMS) for the work will be prepared prior to the commencement of fieldwork.
- 5.1.4 All archaeological staff and visitors attending site will attend an Ecus site induction.
- 5.1.5 Ecus will provide all relevant Risk Assessments, Method Statements and Health and Safety Plans to the Client as required.
- 5.1.6 The Client will be responsible for ensuring site access has been secured prior to the commencement of site works and that the perimeter is secure.
- 5.1.7 Ecus hold appropriate Employer's Liability and Public Liability Insurance.
- 5.1.8 All work equipment must be suitable for the purpose and in sound condition and be inspected, maintained and examined in line with the requirements of the Provision and Use of Work Equipment Regulations and if applicable the Lifting Operation and Lifting Equipment Regulations and any other applicable legislation. Inspection and maintenance records must be provided and those using it must be trained and competent to do so.
- 5.1.9 Health and safety must always take priority over archaeological matters. All archaeologists undertaking fieldwork (e.g. a site visit) must do so under a defined Health and Safety policy. Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences. (ClfA 2020a).

5.2 Anticipated Health and Safety Considerations

Buried Services

- 5.2.1 A full service/utilities check has been undertaken, identifying no services within the Site. This information will inform the Risk Assessments and Health and Safety Plans of the archaeological fieldwork. All work will be undertaken in accordance with the HSE guidance on avoiding danger from underground services (HSG47 third edition).

Overhead Cables

- 5.2.2 A single overhead cable is present, connecting from the south east corner of the existing building to a telegraph pole on Newcastle Road. This overhead cable is not located in the proposed area of works or within the access to the proposed area of works.

Deep Excavations

- 5.2.3 A safe method for evaluation will be agreed and implemented by Ecus before work commences on Site. For example, stepping of trenches may enable safe evaluation of any archaeological features present.

Contaminated Land

- 5.2.4 There is currently no known information relating to potential land contamination within the Site. Should any contamination be encountered or suspected, excavation of the relevant trench will be stopped and Ecus would report to the Client. If appropriate, suitably qualified contractors will attend site to remove any identified contaminants. Under no circumstances will the on-site archaeological

team remove or disturb areas of potential contamination.

5.3 Other Considerations

- 5.3.1 The trench plan illustrated on Figure 5 has been designed to avoid Tree Root Protection Zones.
- 5.3.2 At present no other considerations/constraints are known. Should these be identified, and result in a change to the proposed trench plan, this would be communicated to the archaeological advisor to the LPA and Client prior to any work being undertaken.

6. Copyright

6.1 Paper and Digital Archive

- 6.1.1 The copyright and ownership of the paper and digital archive from the archaeological work will rest with the originating body (the archaeological organisation undertaking the work). The originating body will deposit the material with the recipient museum or repository on completion of the contracted works, whereupon and to whom they will transfer title and/or licence the use of the records.

6.2 Report

- 6.2.1 Full copyright of each report shall be retained by the originating body (the archaeological organisation undertaking the work) under the Copyright, Designs and Patents Act 1988 with all rights reserved, excepting that the Developer will be licensed: to use each report in all matters directly relating to the scheme; and to make each report available for public dissemination as part of the dissemination measures identified above.