

**Archaeological Desk Based Assessment
60a Albatross Close, Beckton, London, E6 5NX**

NGR: TQ 42898 82058

Site Code: WHUF19

August 2019



Touchstone Archaeology

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Appendix I

Historic Environment Record 2019

**Archaeological Historic Environment Desk-Based Assessment in Advance of the proposed
development at 60a Albatross Close, Beckton, London, E6 5NX**

NGR: TQ 42898 82058

1 SUMMARY

Touchstone Archaeology has been commissioned by the Client to carry out an archaeological Historic Environment Desk-Based Assessment on the site of 60a Albatross Close, Beckton, London E6. The site is located south of the historic core of East Ham, c.9km east of London and c.2km north of The Thames and the Royal Docks. The proposed development area comprises of the West Ham United Foundation training ground, including the current office building with training rooms, which is being extended to the west to provide more training facilities. The proposed development area (PDA) is centred on NGR TQ 42898 82058 (Fig.9 & Plate 3).

The landscape in which the PDA is located was once characterised by a number of trackways and Late Bronze Age structures have been encountered on adjoining land parcels at Beckton Nursery, Beckton 3D and the A13 Woolwich Manor Way sites. The excavated Prehistoric archaeology found immediately to the south west of the current building records a trackway that may continue on a north-south axis into the area of the proposed extension. This assessment has shown that the PDA has a high potential for archaeological features or deposits from the Bronze Age and that the archaeological horizon from this period is probably located between -1.40m OD to -11.80m OD. The proposed development is likely to have a high impact upon any potential archaeological remains that have not already been disturbed during the construction of the current building.

It is considered likely that further archaeological assessment will be required. The scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities and can be carried out as a condition of planning consent.

**Archaeological Historic Environment Desk-Based Assessment in Advance of the proposed
development at 60a Albatross Close, Beckton, London, E6 5NX**

NGR: TQ 42898 82058

2 INTRODUCTION

Touchstone Archaeology was commissioned by the Client to carry out an archaeological Historic Environment Desk-Based Assessment at the site of 60a Albatross Close, Beckton, London, E6 5NX centred on National Grid Reference (NGR) TQ 42898 82058 (Fig 9).

This document will be used in support of a planning application associated with the proposed development of an extension to the west of the current building.

2.1 Study Area

The recorded Historic Environment Resource within a 500m Study Area around the site was considered in order to provide a context for the discussion and interpretation of the known and potential resource within the site (Appendix I).

2.2 Scope of Document

This assessment was requested by the HEA in order to determine, as far as is reasonably possible from existing information, the nature, extent and significance of the Historic Environment and to assess the potential impact of development on Heritage Assets.

The assessment forms part of the initial stages of the archaeological investigation and is intended to inform and assist with decisions regarding archaeological mitigation for proposed development and associated planning applications.

3 THE SITE

3.1 Geology

- 3.1.1 The Geological Survey of Great Britain (1:50,000) shows that the PDA is set on Bedrock Geology of London Clay formation (clay, silt and sand); sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene period in a local environment previously dominated by deep seas (*bgs.ac.uk*).
- 3.1.2 Superficial deposits are Alluvium (clay, silt, sand and peat). The gravels of the Thames Valley area of London began their deposition around c.500,000 BP and continued throughout the Pleistocene period. Later during the Holocene period, alluvial and estuarine sediments were laid down and deposited over these gravels. The PDA lies immediately south of these Taplow River Gravels (*bgs.ac.uk*).
- 3.1.3 A number of recent boreholes have been taken in the area immediately north of the PDA on land adjacent to the south side of the A13 Newham Way (BGS: TQ 48SW2760). Reaching a total depth of 3.8m, the geological stratigraphy comprised of made ground of 1.10m (0.28m OD) overlying alluvium of 0.8m (-0.52 OD), sealing clayey peat with wood fragments of 1.8m over gravel (-2.42m OD). Another nearby borehole (TQ 48 SW 2743) was similar; the total borehole reached 10m in depth and the lower gravel layer was 3.5m (-6.66m OD) overlying the bedrock geology of London Clay.

3.2 Topography

The PDA sits at an average height of 1m aOD, c.2.3km north of the River Thames and 9km east of Tower Bridge. It is set within an urban landscape, bounded to the north by the A13, to the east by Woolwich Manor Way, to the west by high density residential housing and to the south by North Beckton Primary School and Albatross Close, a development of a former Pumping Station into three blocks of four-storey residential housing. The PDA is occupied by the West Ham United Foundation, which includes a two-storey building used as an office,

dressing rooms and a fitness room, along with an artificial all-weather pitch for coaching activities. The site falls within the historic parish of East Ham of Essex and is now within the Greater London Borough of Newham (Fig.8).

3.3 Historic Hedgerows

The PDA was set within an area of marshland that later became open fields and by mid C20th a sports ground until its development of 2002. The road of Woolwich Manor Way (East) was widened in the early part of the C20th, the East Ham and Barking By-Pass (A13) was created in the mid C20th and the new Pumping Station and housing development were constructed in the later part of the C20th. These developments resulted in the loss of any historic boundary and the existing natural boundary is modern to provide screening from the roads and surrounding developments. Therefore, there is no surviving evidence of vegetation that qualifies as 'important' as defined by Schedule 1 of the Hedgerows Regulations 1997 (Plate 3-8). The proposed development would have no significant impact on the current vegetation.

4 PLANNING BACKGROUND

4.1 The Proposed Development

The proposed development is for a new two-storey building, which will be located between the existing building and the pitch area. A Pre-Application was submitted in 2019 (19/00828/PREAPP) and following consultation, it was noted that the following document would be required to be submitted with any future application:

'Heritage/Character/Placemaking Asset statement – due site's location on an archaeology priority area'.

Further consultation with the HEA resulted in a response on 6th August confirming that a Historic Environment Desk Based Assessment focusing on depths and extent of foundations and their probable impact on the potential archaeological resource.

4.2 National Planning Policy Framework (NPPF)

The Historic Environment, as defined in the National Planning Policy Framework (NPPF): Annex 2 comprises:

'All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.'

NPPF Annex 2 defines a Heritage Asset as:

'A building monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).'

NPPF Section 16: Conserving and enhancing the historic environment sets out the principal national guidance on the importance, management and safeguarding of heritage assets within the planning process. The aim of NPPF Section 16 is to ensure that Local Planning Authorities, developers and owners of heritage assets adopt a consistent approach to their conservation and to reduce complexity in planning policy relating to proposals that affect them.

Paragraph 185 of the NPPF states that:

'Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. The planning authorities should take into account:

- a) The desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation;*
- b) The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;*

- c) *The desirability of new development making a positive contribution to local character and distinctiveness; and*
- d) *Opportunities to draw on the contribution made by the historic environment to the character of a place.'*

Paragraph 189 of the NPPF states that:

'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate Historic Environment Desk-Based Assessment and, where necessary, a field evaluation.'

Paragraph 190 of the NPPF states that:

'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account to the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.'

The NPPF, Section 16, therefore provides the guidance to which local authorities need to refer when setting out a strategy for the conservation and enjoyment of the historic environment in their Local Plans. It is noted within this, that heritage assets should be conserved in a manner appropriate to their significance.

The NPPF further provides definitions of terms, which relate to the historic environment in order to clarify the policy guidance given. For the purposes of this report, the following are important to note:

- **Significance.** The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance.
- **Setting.** The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

The NPPF advises local authorities to take into account the following points in paragraph 192 when drawing up strategies for the conservation and enjoyment of the historic environment;

- a) The desirability of sustaining and enhancing the significance of heritage assets and preserving them in a viable use consistent with their conservation;
- b) The positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and wider social, cultural, economic and environmental benefits that the conservation of the historic environment can bring;
- c) The desirability of new development in making a positive contribution to local character and distinctiveness.

Paragraphs 193 and 198 consider the impact of a proposed development upon the significance of a heritage asset.

Paragraph 193 emphasises that when a new development is proposed, great weight should be given to the asset's conservation (and that the more important the asset, the greater this weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Paragraph 194 notes that any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

- a) Grade II listed buildings, or grade II registered parks or gardens, should be exceptional;
- b) Assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Paragraph 195 states that where a proposed development will lead to substantial harm (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- a) The nature of the heritage asset prevents all reasonable uses of the site; and
- b) No viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- c) Conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
- d) The harm or loss is outweighed by the benefit of bringing the site back into use.

Conversely, paragraph 196 notes that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

The NPPF comments in paragraph 201 that not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the

relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

Paragraph 198 states that LPAs should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.

Paragraph 200 encourages LPAs to look for new development opportunities within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

Any LPA based on paragraph 202, should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies

4.3 Statutory Protection

Both above and below ground archaeological remains that are considered Nationally can be identified and protected under the Ancient Monuments and Archaeological Areas Act 1979.

Any works affecting a Scheduled Monument should be preceded by an application to the Secretary of State for Scheduled Monument Consent (SMC). Geophysical investigation or the use of a metal detector requires advance permission from Historic England.

The legal requirements on control of development and alterations affecting buildings, including those which are listed or in conservation areas (which are protected by law), is set out in the Planning (Listed Buildings and Conservation Areas) Act 1990.

4.4 Regional Policies

The London Borough of Newham has adopted a 2018 Local Plan. This Local Plan combines and updates the Borough's previous Core Strategy (2012) and Detailed Sites & Policies DPD (2016) and has the following Borough Wide Development Policies that are relevant to this document:

Policy SP5: Heritage and other Successful Place-making Assets – This sets out the strategic principles and spatial strategy along with design and technical criteria including consultation with the Greater London Archaeology Advisory Service (GLAAS) for Archaeological Priority Areas, Areas of Townscape Values and Conservation Areas.

Archaeological Priority Areas

The PDA sits within a Tier 1 Archaeological Priority Area of Woolwich Manor Way. This covers an area south of Newham Way, between Woolwich Manor Way to the east and Eisenhower Drive to the west. The area was classified as Tier 1 because in 1993-1994 and also in 2000-2002, a number of Bronze Age trackways have been found.

London Plan

It is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20–25 years. There are two sections relevant to archaeology:

Policy 7.8: Heritage Assets and Archaeology

(A) London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.

(B) Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.

Planning decisions:

(C) Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.

(D) Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.

(E) New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.

LDF preparation:

(F) Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.

(G) Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

Policy 7.9: Heritage-Led Regeneration

(A) Regeneration schemes should identify and make use of heritage assets and reinforce the qualities that make them significant so they can help stimulate environmental, economic and community regeneration. This includes buildings, landscape features, views, Blue Ribbon Network and public realm.

Planning decisions:

(B) The significance of heritage assets should be assessed when development is proposed and schemes designed so that the heritage significance is recognised both in their own right and as catalysts for regeneration. Wherever possible heritage assets (including buildings at risk) should be repaired, restored and put to a suitable and viable use that is consistent with their conservation and the establishment and maintenance of sustainable communities and economic vitality.

LDF Preparation:

(C) Boroughs should support the principles of heritage-led regeneration in LDF policies

5 PROJECT CONSTRAINTS

No project constraints were encountered during the data collection for this assessment.

6 AIMS AND OBJECTIVES

6.1 Introduction

The Historic Environment Desk-Based Assessment was commissioned by the Client in order to supplement a planning application for an extension to the existing building. This assessment has been prepared in accordance with guidelines set out by the Chartered Institute for Archaeologists (see below).

6.2 Historic Environment Desk-Based Assessment – Chartered Institute for Archaeologists (2017)

This desktop study has been produced in line with archaeological standards, as defined by the Chartered Institute for Archaeologists (2014, revised 2017). A desktop, or Historic Environment Desk-Based Assessment, defined as being:

'Historic Environment Desk-Based Assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Historic Environment Desk-Based Assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of conduct and other relevant regulations of CIfA. In a development context Historic Environment Desk-Based Assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so) and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.'

The purpose of the Historic Environment Desk-Based Assessment is, therefore, an assessment that provides a contextual archaeological record, in order to provide:

- An assessment of the potential for heritage assets to survive within the area of study
- An assessment of the significance of the known or predicted heritage assets considering, in England, their archaeological, historic, architectural and artistic interests
- Strategies for further evaluation whether or not intrusive, where the nature, extent or significance of the resource is not sufficiently well defined
- An assessment of the impact of proposed development or other land use changes on the significance of the heritage assets and their settings
- Strategies to conserve the significance of heritage assets, and their settings
- Design strategies to ensure new development makes a positive contribution to the character and local distinctiveness of the historic environment and local place-shaping
- Proposals for further archaeological investigation within a programme of research, whether undertaken in response to a threat or not.

CIFA (2017:4)

7 METHODOLOGY

7.1 Historic Environment Desk-Based Assessment

7.1.1 Archaeological Databases

The Historic Environment Record (HER) provides an accurate insight into catalogued sites and finds within both the proposed development area (PDA) and the surrounding environs of East Ham. The Archaeology Data Service Online Catalogue (ADS) was also used. The search was carried out within a 500m radius of the proposed development site and relevant HER data is included in the report. The Portable Antiquities Scheme Database (PAS) was also searched as an additional source as the information contained within is not always transferred to the local HER (Appendix I).

7.1.2 Historical Documents

Historical documents, such as charters, registers, wills and deeds etc., were considered relevant to this specific study and the relevant documents were sourced from the Local Records Office and the Internet.

7.1.3 Cartographic and Pictorial Documents

A cartographic and pictorial document search was undertaken during this assessment. Research was carried out using resources offered by the Internet and Ordnance Survey Historical mapping (Figs. 11-18).

7.1.4 Aerial Photographs

A study of the collection of aerial photographs held by Google Earth was undertaken (Plates 1-3).

7.1.5 Secondary and statutory resources

Secondary and statutory sources, such as regional and periodic archaeological Studies are considered appropriate to this type of study and have been included within this assessment where necessary.

8 RECENT ARCHAEOLOGICAL INVESTIGATIONS

The report has accessed various sources of information to identify any known heritage assets, which may be located within the vicinity of the Proposed Development Area. A number of events have occurred within the area of the PDA (Figure 7). These are listed in Appendix I but key details are provided in the following sections.

Archaeological investigations, both recent and historic have been studied and the information from these investigations has been incorporated into the assessment.

8.1 Archaeology

This section is collated from records held by Greater London HER.

The PDA resides within an Archaeological Priority Area (Fig.5) and surrounding it in all directions are a number of other Archaeological Priority Areas each of which are detailed below

The PDA sits within the Tier 1 Archaeological Priority Area (APA) of Woolwich Manor Way (DLO36017). This covers an area south of Newham Way, between Woolwich Manor Way to the east and Eisenhower Drive to the west. The area was classified as Tier 1 because in 1993-1994 and also in 2000-2002, a number of Bronze Age trackways were found and undesignated assets equivalent to a scheduled monument are located within. The remains are especially significant as this type of site is nationally rare; wooden trackways can only survive in wetland conditions and few Bronze Age trackways and platforms of this kind have been found in London.

In addition, the area immediately around the PDA also has a number of other APAs. A Tier II APA of Manor Park to North Woolwich Roman Road (DLO35911) lies immediately to the east of the PDA. It covers the Roman road, a branch road that ran from East Ham in the north, southwards to a possible crossing point at The Thames and a settlement on the higher land in or around east Ham. In addition to the road, a Roman cemetery exists near St Mary's Church and pottery has been found along its length.

To the north of the PDA is the Tier II East Ham APA (DLO35897), a historic settlement area. East Ham was a substantial medieval village with origins that date to a Roman or earlier landscape. There are indications that an early route way formed a spine along which East Ham grew and that consequences of the Norman Conquest could have spurred that growth. Despite modern development, archaeological records indicate sufficient survival to justify archaeological interest. Further investigations could develop our understanding of Roman and medieval settlement, landscape and economy within the hinterland of Londinium/London.

A Tier III APA of Canning Town /Newham Way lies to the south and west of the PDA (DLO35895). This covers the area north of the Royal docks as far as Newham Way and an area to the north of Canning Town between the River Lea and the Jubilee Line. Significant finds and features from the prehistoric period have been found in the area. Like the Royal Docks and Beckton APAs to the south and west, a lot of this area would have been marshland before being developed in the C19th. However, unlike the Royal Docks and Beckton this area never saw the same landscape scale of industry and engineering. Important prehistoric features have been found within bordering Tier 1 APAs and it is probable that further significant finds have survived within this area. Any deeply buried and well-preserved prehistoric features could be of schedulable quality. Potential discoveries could include boats, fish-traps, flood defences and trackways as well as artefacts and environmental evidence. Any features or deposits would not have been impacted upon by major engineering projects such as the Royal Docks so the chances of their survival is higher compared to elsewhere within the former wetland area.

The final APA is that of the Tier II Beckton (DLO35896) APA. This lies to the east of the Manor Way/Newham APA. Since the C19th the area has been dominated by the large gasworks and sewage works. The APA includes the Thames because of the potential for foreshore or underwater features. The Beckton APA is classified as Tier 3 due to it being an extensive area of historic industry and infrastructure. In undeveloped parts of the APA there is also a high potential for preservation of organic remains associated with a deeply buried former wetland. The gasworks and the sewage works were among the largest in the world and demonstrate how the city dealt with its waste and its need for fuel in the C19th.

Many of the original buildings have been demolished but remains may survive beneath the surface. Their association with such important industrial facilities would make them significant to research into the infrastructure of what was at the time the world's largest city.

Essentially the PDA lies within an extremely important area for prehistoric and Roman archaeology, which is considered of national significance. Figure 7 shows the HER map of events in the assessment area and the key ones are detailed below. The full lists of all events are provided in Table 2 in Appendix 1

8.2 0-100m Radius

In 2002, in advance of the construction of the current building at the PDA, two trenches were opened which revealed Bronze Age structures (ELO1408). One was a platform, thought to be used for hunting and the second structure was a trackway. Two stepped trenches were excavated, one measuring 10m by 10m at the top, the second 19.5m east—west by 16m north—south which was located to the south west of the current building as identified by the overlay of the Pre-Construct trench plan with the current Google Earth (Plate 4). The timber structures were identified within the peat sequence, which started at c.-3.62m. The peat was then radiocarbon dated to between c.-3.00m OD (c.4080—3860 cal bc) and c.-2.46m OD (c.3270—2990 cal bc), c.-1.67m OD (c.1530-1260 cal bc). The wooden structures provided pedestrian access at a time when the ground was wetter and less stable. The large number of trackways found along the Beckton margin of the Thames floodplain, usually on a north-south alignment from the higher ground in the north, may have enabled herders to cross the wetter areas to gain access to monitoring platforms and herds pasturing on grassland in the reed swamp and marsh.

Immediately east of the PDA a watching brief took place in 1995 along Woolwich Manor way for a sewer pipe (ELO3717). Inspection shafts were dug which identified natural gravels. No archaeological finds or features were uncovered.

Adjacent and south of the PDA a Desk-based Assessment undertaken in 2013 at the school site noted that north and east of the school there were significant Neolithic and Bronze Age

remains and that the land use from the Roman period onwards was considered marginal due to the marshes and mainly used for pasture (ELO13255).

Not included in the GLHER is the excavation undertaken for the A13 road scheme. Due to the widening of the A13, the northern boundary of the PDA has altered over time. Test pits followed by a number of evaluation trenches (*Pre-Construct Archaeology*) to the north of the PDA are seen in Figure 8. Archaeological remains were identified from the Neolithic, Bronze Age and Roman periods. Test Pit 8, which lay to the north of the Trench 1, uncovered Bronze Age timber structures and was followed by an evaluation trench known as Area 1 (Trench 1 in Figure 8). The structure was dated to the late 3rd millennium BC and ran on a NNW-SSE alignment. The structure in area 1 is thought to be comparable with that seen in Trench 1 to the south and may even be a continuation of the same trackway.

8.3 100-200m Radius:

In this radius to the west of the PDA an area excavation in 1993 found another section of Bronze Age trackway (ELO3561), radiocarbon dating the peat to a date range of 800-200 BC. (ELO7360)

8.4 200-300m Radius:

An excavation on the former nursery site in 1994 over a large area west of the PDA identified more Bronze Age trackway and platforms, possibly for hunting. Three metres of peat overlay the silty clay and contained waste wood chips suggesting evidence of woodworking and fallen yew trees at lower levels. Natural water channels cut the clay on a north-south axis and within this a ditch dated potentially from the Roman and Medieval period.

To the north west of the PDA on the northern side of the A13, an excavation in 2005 found only C19th pottery (ELO6270).

8.5 300-400m Radius:

No events were recorded within this distance.

8.6 400-500m Radius:

In 1994, an evaluation of three trial trenches to a depth of 1.20m was carried out at 104-120 Roman Road, north west of the PDA (ELO10140). Natural river gravel was recorded in all three trenches at between approximately 1.45 to 1.65m OD. This was overlain by natural subsoil, which had some intrusive modern artefactual material. In Trench 3 redeposited natural gravels overlaid the subsoil, forming part of the embankment for the adjacent Northern Outflow Sewer, which was constructed in the mid-C19th. The disturbed topsoil, which had evidence of C19th and C20th horticultural activity, was recorded in all three trenches. A sherd of Late Saxon grey ware was recovered from the topsoil.

In 1992, to the north east of the PDA on a triangle of land south of the A13, a number of archaeological investigations were carried out. Peat deposits were found to have survived as a 100m wide band, extending more than c.300m from the western end of the application site to the east. While isolated instances of burnt flint were recovered from the alluvium, there was a complete absence of cultural material. As none of the deposits were associated with evidence of human activity, palaeo-environmental analyses of the samples were not undertaken (ELO10139 & ELO10138).

8.7 500m *plus* Radius:

A 1994 evaluation in the area of Tollgate Road to the south west of the PDA proved negative (ELO7507).

A scoping study for the Royal Docks (ELO13150) focussing on the historical evolution of the docks was carried out in 2010 across the area of the PDA from the line of the sewer outfall, south to the Thames.

8.8 Established stratigraphy

The levels of the timbers in Trench 1 of the Pre-Construct excavation immediately to the south west of the current building at the PDA were as follows:

Structure	Range of levels for top of timbers
Platform	-1.45m to -1.75m OD
Trackway	-1.40m to -1.60m OD
Roundwood spread (north side of trench)	-1.40m to -1.50m OD
Roundwood spread (south side of trench)	-1.65m to -1.80m OD

The Beckton Nursery site identified the following levels. Natural clay was observed at +0.28m above OD; peat at -1.64m above OD; and gravel at -4.17m above OD.

At the Beckton triangle site, flood plain gravels were identified at between -2.0m OD and -3.30m OD.

The A13 Area 1 evaluation trench identified the Bronze Age trackway at c.-1.40m OD.

9 ARCHAEOLOGICAL AND HISTORICAL DEVELOPMENT

9.1 Introduction

This section of the assessment will focus on the archaeological and historical development of this area, placing it within a local context. Each period classification will provide a brief introduction to the wider landscape (500m radius centred on each site of the PDA), followed by a full record of archaeological sites, monuments and records within the site's immediate vicinity. Time scales for archaeological periods represented in the report are listed below in Table 1.

The Archaeological record within the assessment area is dominated by prehistoric remains, specifically the Bronze Age, and Medieval and Post Medieval records relating to the historic

core of East Ham. The geographic and topographic location of East Ham on the higher ground of what was the lower marshy East Ham Levels to the south of the village is within a landscape that has been the focus of hunting, travel, settlement and industry since the Prehistoric period.

9.2 Table 1 Classification of Archaeological Periods

Palaeolithic	<i>c.</i> 500,000 BC – <i>c.</i> 10,000 BC
Mesolithic	<i>c.</i> 10,000 BC – <i>c.</i> 4,300 BC
Neolithic	<i>c.</i> 4.300 BC – <i>c.</i> 2,300 BC
Bronze Age	<i>c.</i> 2,300 BC – <i>c.</i> 600 BC
Iron Age	<i>c.</i> 600 BC – <i>c.</i> AD 43
Romano-British	AD 43 – <i>c.</i> AD 410
Anglo-Saxon	AD 410 – AD 1066
Medieval	AD 1066 – AD 1485
Post-medieval	AD 1485 – AD 1900
Modern	AD 1901 – present day

9.3 History of the Locality

10.1.1 Approximately 450,000 years ago, the great 'Anglian' Ice Age displaced the River Thames from its previous northerly route via Clacton towards its present course. In warmer periods pre-modern humans (Neanderthals and their ancestors) migrated into southern England where they hunted and butchered animals such as antelope, bison, deer and even mammoths using wooden spears and stone tools. Palaeolithic activity in the wider area relates to stray finds usually found in Antiquity and likely to have been as a result of hill wash from the higher land to the north.

10.1.2 The Borough of Newham would have been located on the edge of a great well-watered wooded lowland plain stretching as far as the Low Countries and Germany. This would have been a rich environment for Mesolithic people to hunt, fish and gather wild plants. Populations would have been low and small bands would have moved around the landscape exploiting its diverse resources. There are few findings of Mesolithic activity in this part of London. However, there is greater evidence in the wider area for Neolithic activity with Neolithic environmental deposits and fallen woodland along Woolwich Manor Way to the southeast. The environmental deposits consisted of emmer wheat and the possible tree clearance suggestive of use of the land for clearance of woodland and agriculture. Worked and burnt flints have been found in the deeper peat levels that have been dated to the Neolithic.

10.1.3 The Bronze age is clearly represented in the area and is the reason for the PDA being located in a Tier 1 Archaeological Priority Area. Numerous Bronze Age structures have been seen, generally in the area south of the A13 in what would have been wetland in the Bronze Age. The trackways are broadly on a north-south alignment from the higher ground in the north and thought to aid crossing the wetter ground in this period to assist with pasture for cattle and or hunting. As this area of East Ham has only been drained in the past century, preservation of the wood is exceptionally good.

10.1.4 The gravel terraces of the Lower Thames are known to have been occupied in the Iron Age. There are Iron Age agricultural hamlets in Epping Forest, Loughton Camp and Uphall Camp on the river Roding in Ilford. There is little direct evidence for this period in the

area of East Ham although a settlement was recorded on the opposite side of The Thames at Woolwich Arsenal so it is likely that the area was being utilised at this time.

10.1.4 East Ham lays approximately 8km east of the Roman city of *Londinium*. The London to Colchester Roman road passes through c. 7km north of the PDA, through Stratford and crossing the River Lea near Clacton. However, it is suggested that the line of the north-south axis of East Ham High Street and Woolwich Manor Way is a possible Roman Road that went from the higher ground in the north towards a possible crossing area of the Thames to the south. In the area around the PDA, there does appear to be Roman activity with a Roman cemetery discovered in antiquity containing inhumation and burials at a site to the north west of the PDA, not far from the parish church. Little else is known about the site. It is likely that the PDA in the Roman period was either marshy land or underwater as the water levels were higher then.

10.1.5 Until the later C12th, references to Ham ('low-lying pasture') do not distinguish between East and West Ham, and are therefore difficult to interpret precisely. A settlement in the area named Ham is first recorded as 'Hamme' in an Anglo-Saxon charter of 958 and then in the 1086 Domesday Book as 'Hame'. It is formed from Old English 'hamm' and means 'a dry area of land between rivers or marshland', referring the location of the settlement within boundaries formed by the rivers Lea, Thames and Roding and their marshes. The Domesday Book records that the combined manor of East Ham was under the ownership of Robert Gernon, and formerly Levred and that it contained 77 households, which was considered to be a large settlement. There were 59 acres of meadowland and enough woodland for 710 pigs and 16 plough teams. It was thought that the northern part of the parish was woodland with the settlement areas to the south near the marshes, which were used for grazing, fishing, fowling and tanning although the area in this period is likely to have flooded regularly.

10.1.7 The church of St Mary, East Ham was built in the C12th and likely on the site of an earlier church. At this time East Ham was just a village in size. The sea levels, had by this time, dropped creating the marshland south of the settlement area known as 'The Levels'. The Levels consisted of approximately 1500 acres with the land owned by Stratford

Langthorne Abbey. With rising sea levels there were regular floods in Medieval times, restricting the growth of East Ham.

10.1.8 Documentary sources state that the Manor of East Ham Hall was first documented in 1267. In 1294 the manor house adjoined East Ham church and held around 200 acres. In 1306 part of the estate was given to the Stratford Langthorne Abbey and by 1338 the Abbey had acquired the whole of the Manor. Following the dissolution, Henry VIII gave the Manor and The Levels to Richard Bream and it was sold by his grandson to finance the construction of alms-houses. The Draper family purchased the estate and held it until the mid-C19th, when the estate was broken up and sold for building purposes. It is believed that the Manor house was little more than a farmhouse. It was rebuilt in the early C19th as a small brick building of two storeys, with a frontage of three bays. The house was subsequently demolished c. 1932. It seems likely that the rebuilding took place on the site of the earlier Medieval building.

10.1.8. Sometime after the dissolution, The Levels began to be partitioned out and individual fields created for agricultural exploitation supported by numerous drainage channels. Documentary evidence suggests that between the C14th and the C19th the pattern of land use in East Ham remained more or less constant, with the northern half of the parish being tilled as arable and the coastal marshes used for grazing.

10.1.9 By the C18th, The Levels were utilised for growing potatoes, turnips, onions, cabbages and other market garden produce. Consequently, across the parish were scattered farms. However, following the opening of the Beckton Gas Works, which grew significantly and attracted workers who required housing, the area began to be urbanised. In addition, to the south, the Royal Victoria dock opened in 1855 as well as the nearby Royal Albert Dock in 1880 with the southern area of East Ham essentially an industrial area. Initially due to better transport links elsewhere, workers for the industry came from outside East Ham and it was only later that East Ham became more residential and the land available for agriculture, reducing in the late C19th and early C20th.

9.4 Map Regression 1864 – 1992

Historic maps

In an extract from the Topographical Map of the County of Essex by John Chapman and Peter Andre in 1777 (Fig.11), the village of East Ham is clustered to the north of the church in an area referred to as South End; essentially a ribbon development that broadly follows a north-south axis and continues southwards from the village across the marshes towards the Thames. Ham Creek is seen at the south west of the PDA and formed the division between East and West Ham. The PDA is located within an area highlighted as the East Ham Levels on the western side of the road.

The Ordnance Surveyors Drawing 1799 (Fig.12) shows individual buildings, field boundaries and the field in which the wider PDA sits. The area of The Levels has been reclaimed and covered with drainage ditches. There is very little growth seen in East Ham to the north of the PDA.

The 1838 East Ham Tithe Map (Fig.13) is not dissimilar from the earlier map. It shows the wider PDA as a field designated number 348, owned and occupied by Samuel Seabrook, a landowner primarily in the Dagenham Parish. The plot is described as marsh and was grass, essentially pasture. The fields around, including that designated 349 are also marsh, but immediately north, field 324 is arable, suggesting this is the northern boundary of The Levels.

The Ordnance Survey Maps

Historic OS map 1865 – Little detail is seen on this map so it has not been shown. However, by this time the Northern Outfall Sewer, designed by Joseph Bazalgette after an outbreak of cholera in 1853 and the "Great Stink" of 1858, had been built and passes the PDA to the north on a northwest-south east axis.

Historic OS map 1896 1:2500 – This shows the PDA in a field, designated number 98 of 8.107 acres. The field is still surrounded by drainage ditches. North of field 108, on the southern side of the sewer outfall, rows of terraced houses have been built along a road named Roman Road. This area is on the higher ground. To the east along what is now Woolwich Manor Way, but then called Ham Manor Way due to the sewer, the road between the area

of the PDA and the village to the north has been straightened. To the south east of the PDA on the eastern side of Ham Manor Way is the Tar and Liquor Works of the Beckton Gas Works, which were further to the east. Off the map, to the north, West Ham by this time has urbanised and has much residential development. By comparison, East Ham, has shown little residential growth (Fig.14).

Historic OS map 1916 1:2500 – The PDA remains unchanged. The Ham Manor Road has been straightened and widened. The Tar and Liquor Works area has expanded to include all of the eastern side of Ham Manor Way. North of the line of the sewer outfall and to the north of the map, around the original village area, has been infilled entirely with housing. To the immediate south and west, the area is still comprised of drainage channels and fields. For the first time, buildings are shown on the field immediately to the south and a new east-west road has been placed across this area, intersecting with Ham Manor Way, linking Beckton to the southeast and Canning Town to the southwest. (Fig.15)

Historic OS map 1960-1962 1:1250 – There have been significant changes. The road to the east of East Ham Manor Way is referred to as the North Circular Road. To the north of the PDA, there is a new dual carriageway referred to as the East Ham and Barking By-pass. The PDA is a sports ground and only part of the original drainage channel that surrounded the field of the PDA exists in the far northwestern part. The drainage channel for the western side of the field has been altered to that of a straight channel. To the south east of this area a large pavilion has been built for the sports ground. Between the PDA and the by-pass are allotments (Fig.16).

Historic OS map 1982-86 1:1250– There is little change at the PDA. In the field to the south is a pumping station. The by-pass is referred to as the Newham Way. (Fig.17).

Historic OS map 1992-95 1:1250– The sports ground at the PDA has now become a golf range and there is only the pavilion in the south east corner that exists on the site as a building. To the south the primary school has been built. East Ham Manor Way has been renamed Woolwich Manor Way. The industrial area immediately east of this road has become a ski-slope recreation area (Fig.18).

9.5 Aerial photographs

1945

The PDA is a grassed field surrounded by drainage ditches. The East Ham Manor Road has been straightened and the by-pass to the north has been built. To the far north of the sewer, the area is residential and filled with housing. To the east, it is still industrial but the area immediately south and west still remains open fields (Plate 1).

1999

The entire area has been urbanised. At the PDA the residential blocks of Albatross Close are being constructed as is the current building of the PDA, with the sports area to the west. It is likely that the drainage channels were moved to culverts at this time as they can no longer be seen around the boundaries. To the southeast is the pumping station and to the south the primary school built in 1994. Residential housing now covers the area to the south and west. To the east, the ski slope is no longer operating and the industrial area is now a business park. To the north, the by-pass appears to be in the process of being widened and the junction with that of Woolwich Manor Way to the east of the PDA has also increased in size (Plate 2).

2000 -2017

There is little change from 2000 onwards. The Northern Outfall Sewer, running some 7 km from Wick Lane, Bow to Beckton has been landscaped to form a public footpath/cycleway called The Greenway with access points along its length (Plate 3).

9.6 Scheduled Monuments; Listed Buildings; Historic Parks & Gardens and Conservation Areas

There are four Historic Environment Records within the confines of the proposed development area (PDA). There are five Archaeological Priority Areas in the assessment area of which one is located at the PDA. In addition, there are fifteen events, sixteen monuments, five findspots and one Listed Building within c.500m vicinity of the PDA (Appendix I).

Setting of Listed Buildings

One of the tasks of the site visit was aimed to identify any designated heritage assets within the wider context of the PDA in accordance with The Setting of Heritage Assets – Historic England Guidance (HE, Dec 2017). This guidance states “*setting embraces all of the surroundings (land, sea, structures, features and skyline) from which the heritage asset can be experienced or that can be experienced from or with the asset*” (The Setting of Heritage Assets, Historic England 2017).

There is one listed building located to the north of the PDA; St Mary’s Church in East ham (MLO90615) is of C12th origins with Medieval wall paintings (MLO55841) and a C16th tower. The church was heavily restored in the Victorian period. Whilst the church is only c. 300m north of the PDA, it is screened by vegetation and the A13 flyover. Therefore, there is no intervisibility between the PDA and the designated asset of the church and the proposed development will not impact upon the significance or setting of the church.

Newham Character Study

Produced originally in 2010, a revised version was released in 2017. It provides character typologies across the borough, understanding the positive and negatives for each area in design and how heritage assets may be best protected. Urban design principals were generally not applied and urban development should seek to improve. The PDA is located in the north east corner of an area characterised as being developed from marshes in the 1980s- early 1990s; located between Newham Way in the North and the Royal Albert Way in the south, between Plaistow Way in the west and Woolwich Manor Way in the east.

Historic Landscape Classification

The landscape classification shows the PDA classified as an open space and this has been confirmed by the map regression and current usage. To the south and west it is surrounded by post Second World War housing. North of the A13 are Victorian terraces and to the east of Woolwich Manor Way are industrial parks. Diagonally opposite to the north east on the opposite side of the A13 is the natural reserve around East Ham Church (Fig.6).

10 ARCHAEOLOGICAL POTENTIAL

10.1 Walkover Survey

The walkover survey is for the purpose of:

1. Identifying any historic landscape features not shown on maps
2. Conducting a rapid survey for archaeological features
3. Making a note of any surface scatters of archaeological material
4. Constraints or areas of disturbance that may affect archaeological investigation

The walkover survey is not intended as a detailed survey but the rapid identification of archaeological features and any evidence for buried archaeology in the form of surface scatters of lithic or pottery artefacts.

10.1.1 A site visit was made in September 2019. The site has been developed within the C20th, therefore no surface archaeology was present. Photographs were taken of the site and the boundaries to assist with the Listed Building assessment and general site description.

10.2 Greater London Historic Environment Record

See Appendix I

Palaeolithic, Mesolithic, Neolithic and Bronze Age

The Palaeolithic period represents the earliest phases of human activity in the British Isles, up to the end of the last Ice Age. The HER has one record from this period within the assessment area (Fig.2). An isolated possible Palaeolithic arrowhead was found within the area of the PDA when it was an allotment (MLO2545). Therefore, the potential for finding remains that date to this period within the confines of the development site is considered **low**.

The Mesolithic period reflects a society of hunter-gatherers active after the last Ice Age. The HER has no record from this period within the assessment area, therefore, the potential for finding remains that date to this period within the confines of the development site is considered **low**.

The Neolithic period was the beginning of a sedentary lifestyle based on agriculture and animal husbandry. The HER has two records dating to this period within the assessment area (Fig.2). In 1994, in an area to the west of the PDA, an excavation at what was then Beckton Nursery identified peat deposits that dated to 4670-4635 BC (MLO61743). In addition, to the east of the PDA in the area that was a ski-slope, alluvial clay overlay peat deposits that included the remains of trees. The lower levels were dated to 4345-4230 BC (MLO66976). The PDA lies between these two areas and it is therefore probable that peat deposits exist on site. Therefore, the potential for finding remains that date to this period within the confines of the development site is considered **high**.

The Bronze Age was a period of large migrations from the continent and more complex social developments on a domestic, industrial and ceremonial level. The HER has six records dating to this period within the assessment area (Fig.2). Within the PDA, an excavation prior to the construction of the current building in 2002, uncovered Bronze Age remains of national importance in a trench located immediately south west of the current building; a

wooden platform (MLO78047) and a trackway (MLO98317). The peat found to the east of the PDA had the upper levels dated to 1415-1275 BC (MLO66976). To the west at the Beckton Nursery site in 1994, many brushwood features were found, which are likely to have been trackways (MLO61744/MLO41745). A further wooden trackway was discovered between the Beckton Nursery area and the PDA in Evelyn Dennington Road (MLO41740), west of the PDA. The area to the north by the A13 was the higher ground and these trackways on a north/south axis were created across the marshy ground. As well as pathways some of the features may have been hunting platforms. The historically marshy ground has led to a high level of preservation. Given that the PDA is for the extension of the 2002 building, the potential for finding remains that date to this period within the confines of the development site is considered **high**.

In addition, to those records known to be of specific periods, there are also other records broadly assigned to the Prehistoric period. In 1994 an excavation within the area of the PDA, a peat sequence beneath alluvial clay deposits was observed in an inspection shaft south of Newham Way (MLO66977). These deposits were not dated but may be of a similar date to peat deposits recorded elsewhere in Beckton (Neolithic to Roman). In the 1994 excavation, in the area known as Beckton Nursery, an undated Palaeochannel was observed (MLO41747). To the south west of the PDA towards the outer reaches of the assessment area and south of the Beckton Nursery area, additional peat deposits of unknown date (MLO60157) or assigned to the Prehistoric (MLO60156) were also recorded. These had been formed in tidal marshes and cut by a later channel. Subsequent to this, the site was occupied by a body of open water, until recently drained.

The Iron Age

The Iron Age is by definition a period of established rural farming communities with extensive field systems and large 'urban' centres (the Iron Age 'Tribal capital' or *civitas*, '*Camulodunum* or *Colchester* of the Tribe *Trinovantes*). The HER has one record dating to this period (Fig.3). A piece of Iron Age pot was seen in St Mary's Churchyard when a tree blew over (MLO25437). St Mary's churchyard is in the area to the north of the PDA that was on known higher ground. It is believed that the area of the PDA in this period was still in

marshy ground. Therefore, the potential for finding remains that date to this period within the confines of the development site is considered **low**.

Romano British

The Romano-British period is the term given to the Romanised culture of Britain under the rule of the Roman Empire, following the Claudian invasion in AD 43, Britain then formed part of the Roman Empire for nearly 400 years. There are two HER records from this period within the assessment area (Fig.3). The area of Beckton nursery, west of the PDA identified a ditch dated to between the Roman and Medieval period, which was on a north south alignment (MLO61746). In antiquity, Roman pot was found in St Mary's churchyard (MLO25160). The APA of Manor Park to North Woolwich immediately east of the PDA is thought to be the line of a Roman road (DLO35911) and the Romans were known to undertake ritual roadside activities as well as the possibility of a Roman settlement in the vicinity of East Ham aside the road. However, the 2002 excavation at the PDA did not identify any Roman features or artefacts. Therefore, the potential for finding archaeological features or deposits from this period is considered **low**.

Anglo-Saxon

There are no HER records from this period within the assessment area; therefore, it is reasonable to conclude that the potential for finding remains dating to the Anglo-Saxon period in the PDA is considered **low**.

Medieval

There are six HER records from this period within the assessment area (Fig.4). East Ham is known to have Medieval origins and is a Tier II APA (DLO35897) with a C12th Church (MLO90615/MLO55841). Documentary sources refer to the Manor of East Ham Hall in 1267 (MLO25675). Medieval finds in the vicinity of the church include pottery (MLO25436), a ring (MLO25424) and agricultural soil which also included pottery (MLO66978) all to the north of the PDA on the higher ground. It is thought that in the Medieval period, the area of the PDA

was still marshy. Therefore, it is reasonable to conclude that the potential for finding remains dating to the medieval period in the PDA is considered **low**.

Post Medieval

There are two records held at the HER from this period within the assessment area (Fig.4). Post Medieval pottery has been found in the churchyard of St Mary's Church C12th (MLO25436) and to the north, Post Medieval clay pipe was found above early agricultural layers (MLO66978). As in Medieval times, map regression confirms that the area of the PDA was still marshy. Therefore, the potential for finding remains dating to this period is considered **low**.

Modern

There are no records in the HER within the assessment area from this period. Therefore, the potential for finding remains dating to this period is considered **low**.

Farmsteads

There are no farmsteads recorded within the assessment area.

11 SUMMARY OF ARCHAEOLOGICAL POTENTIAL

The PDA is located to the south of the historic core of Medieval East Ham, that may also potentially have a nearby Roman settlement. There is scant evidence for these periods, possibly because East Ham was located on the higher ground suitable for settlement, whereas the PDA was in marginal land of marshy ground until the area was drained in the late C19th into the C20th and eventually developed in 2002.

As evidenced by trackways and hunting platforms, this marshy land, broadly below the A13, was utilised during the Bronze Age. One of the trackways cut the PDA on a north/south axis, immediately south west of the current building. The underlying Geology and the prehistoric landscape are conducive to preserving the prehistoric deposits. The peat deposits east and west of the PDA and Palaeochannels, have been dated to the Prehistoric period and these

are also likely to occur at the PDA. There is a high potential for archaeology of the Prehistoric period. The Bronze Age trackways and Prehistoric deposits have national significance and consequently the PDA is within a Tier I APA attesting to the general importance of understanding the entire landscape that surrounds the PDA.

Therefore, the site has an overall **high** archaeological potential.

The Historic Environment Desk-Based Assessment has considered the archaeological potential of the site. Archaeological investigations in the vicinity, map research, the historical environment record results and recent archaeological investigations have shown that the PDA may contain archaeological sites and these can be summarised as:

- Prehistoric: **High**
- Iron Age: **Low**
- Roman: **Low**
- Anglo-Saxon: **Low**
- Medieval: **Low**
- Post-Medieval: **Low**
- Modern: **Low**

12 IMPACT ASSESSMENT

12.1 Introduction

Cartographic Regression, Topographical Analysis, and Historic Research have provided evidence for the historic use of the site. By collating this information, an assessment of the impact on potential archaeological remains is carried out through the following method of categorisation:

Total Impact - Where the area has undergone a destructive process to a depth that would in all probability have destroyed any archaeological remains e.g. construction, mining, quarrying, archaeological evaluations etc.

High Impact – Where the ground level has been reduced to below natural geographical levels that would leave archaeological remains partly in situ either in plan or section e.g. the construction of roads, railways, buildings, strip foundations etc.

Medium Impact – Where there has been low level or random disturbance of the ground that would result in the survival of archaeological remains in areas undisturbed e.g. the installation of services, pad-stone or piled foundations, temporary structures etc.

Low Impact – Where the ground has been penetrated to a very low level e.g. farming, landscaping, slab foundation etc.

12.2 Historic Impacts

Cartographic regression (8.3), Topographic analysis (2.2) and Historical research (8.2) indicate that the PDA was marshy ground until the late Post Medieval period when the area of the East Ham levels began to be drained. The PDA was not developed until 2002 having been a sports ground, allotments and golf centre. Prior to the construction of the current building, an excavation was undertaken in which a well-preserved Bronze Age trackway was uncovered immediately south west of the current building. The area of the trench was not developed and the archaeology preserved in situ. Assuming the construction of the current building did not truncate the area west of the building, the damage to the deposits in that area could be considered **low**

12.3 Summary of Impacts Both Historic and Proposed

Historic Impacts

The site saw little change until the C21st when it was developed as a training ground and the construction of the current building identified archaeology of national significance. The level of natural geology of the site can be ascertained by boreholes recorded on the BGS and also past excavations and auguring.

Proposed Impacts

Current development proposals include a two-storey extension on the western side of the current building. At the present time engineering details associated with foundation designs are unknown, although it is anticipated that this will have a **high** impact on any archaeological remains that may be present.

13 ARCHAEOLOGICAL MITIGATION

The purpose of this archaeological Historic Environment Desk-Based Assessment was to provide an assessment of the contextual archaeological record in order to determine the potential survival of archaeological deposits that may be impacted upon during any proposed construction works.

This Historic Environment Desk-Based Assessment has established that there is a **high** potential for archaeology relating to the Prehistoric period, especially the Bronze Age, of which any potential for archaeology is considered to have regional if not national significance. To the south west of the current building in 2002, a Bronze age trackway was discovered in good preservation on a north-south alignment. Given that the proposed development is for an extension on the western side of the current building, it is highly likely that the trackway continues northwards into the actual proposed development area of the extension. Map regression confirms that the area of the proposed development appears not to have been developed, although any impact from the construction of the current building is unknown but the impact is considered to be low.

In light of the above it is considered likely that further archaeological assessment will be required. The scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities and can be carried out as a condition of planning consent.

14 OTHER CONSIDERATIONS

14.1 Archive

Subject to any contractual requirements on confidentiality, two copies of this Historic Environment Desk-Based Assessment will be submitted to OASIS within 6 months of completion.

14.2 Reliability/Limitations of Sources

The sources that were used in this assessment were, in general, of high quality. The majority of the information provided herewith has been gained from either published texts or archaeological 'grey' literature held at HER, and therefore considered as being reliable.

14.3 Copyright

Touchstone Archaeology and the author shall retain full copyright of the commissioned report under the Copyright, Designs and Patents Act 1988. All rights are reserved, excepting that it hereby provides exclusive license to The Client for the use of this document in all matters directly relating to the project.

Zoe Schofield

Touchstone Archaeology

28th August 2019

15 REFERENCES & BIBLIOGRAPHY

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Unpublished document: Newham Museum Service. 1995. Beckton Nursery, Newham Way, North Beckton E6: Archaeological Investigation

16 APPENDIX 1: HISTORIC ENVIRONMENT RECORDS

GLHER	Type	Location	Period	Description
MLO25160	Findspot	c. 320m NNE	Roman	East Ham Churchyard East Ham E6. Found in the churchyard in the late C19th.
MLO25424	Findspot	c. 330m N	Medieval	St Mary Magdalene East Ham. A ring was found in 1852, possibly whilst grave digging.
MLO25435	Findspot	Within PDA	Lower Palaeolithic to Post Medieval	Manor Way Allotment Corner with Newham Way E6. An isolated find of an arrowhead (?) was found on the allotment
MLO25436	Findspot	c. 320m NNE	Medieval to Post Medieval	St Mary Magdalene Churchyard Nr Main Entrance E6. A tree in the churchyard that blew over in the 1897 storm revealed Medieval and Post Medieval pottery.
MLO25437	Findspot	c. 310m N	Iron Age	St Mary Magdalene Churchyard Nr Main Entrance. A tree in the churchyard that blew over in the 1897 storm revealed Iron Age pot.
MLO25675	Monument	c. 435m N	Medieval to Post Medieval	High St East Ham E6. Documentary sources refer to the manor of East Ham Hall in 1267.
MLO55841	Monument	c. 310m N	Medieval	High St South East Ham E6. Wall painting. Restoration of the interior of the church in c. 1851 revealed 6 wall paintings tentatively dated to the C13th.
MLO60156	Monument	c. 470m SW	Prehistoric	Tollgate Rd E6. Evaluation by W. Tamblyn for NMUS, April 1994. Peat deposits that were formed in tidal marshes were found. These were cut by a later channel.

MLO60157	Monument	c. 470m SW	Unknown	Tollgate Rd E6. Evaluation by W. Tamblin for NMUS, April 1994; site code HE-TG 94. Peat deposits 062093 were cut by a later channel. Subsequent to this the site was occupied by a body of open water, until recently (relative to 1994) drained.
MLO61740	Monument	c. 220m W	Bronze Age	Evelyn Dennington Road {Bronze Age Trackway}. A Bronze Age trackway was found, consisting of a platform of natural timber spread over the surface of the marsh.
MLO61743	Monument	c. 300m W	Neolithic	Newham Way [Beckton Nursery], E6 {Peat}. A 1994 excavation revealed peat deposits were dated by radiocarbon to 4670-4635BC and 4620-4360BC. Multiple locations.
MLO61743	Monument	c. 630m W	Neolithic	Newham Way [Beckton Nursery], E6 {Peat}
MLO61743	Monument	c. 450m W	Neolithic	Newham Way [Beckton Nursery], E6 {Peat}
MLO61743	Monument	c. 585m WSW	Neolithic	Newham Way [Beckton Nursery], E6 {Peat}
MLO61743	Monument	c. 320m WSW	Neolithic	Newham Way [Beckton Nursery], E6 {Peat}
MLO61744	Monument	c. 300m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Trackway}. Revealed in a 1994 excavation. Although most of the brushwood features recorded were probably Bronze Age trackways (062133), others may have had different functions, such as shooting platforms or hunting-blinds were also uncovered. There was evidence of woodworking in the form of waste wood chips. Multiple locations.

MLO61744	Monument	c. 630m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Trackway}
MLO61744	Monument	c. 450m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Trackway}
MLO61744	Monument	c. 585m WSW	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Trackway}
MLO61744	Monument	c. 320m WSW	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Trackway}
MLO61745	Monument	c. 300m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Brushwood Structure}
MLO61745	Monument	c. 630m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Brushwood Structure}
MLO61745	Monument	c. 450m W	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Brushwood Structure}
MLO61745	Monument	c. 585m WSW	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Brushwood Structure}
MLO61745	Monument	c. 320m WSW	Bronze Age	Newham Way [Beckton Nursery], E6 {Bronze Age Brushwood Structure}
MLO61746	Monument	c. 300m W	Roman to Medieval	Newham Way [Beckton Nursery], E6 {Ditch - Roman To Medieval}. 1994 excavation revealed alluvial clay overlying the prehistoric features was a N-S ditch of unknown date, possibly between the Roman and medieval periods. Multiple locations.
MLO61746	Monument	c. 630m W	Roman to Medieval	Newham Way [Beckton Nursery], E6 {Ditch - Roman To Medieval}
MLO61746	Monument	c. 450m W	Roman to Medieval	Newham Way [Beckton Nursery], E6 {Ditch - Roman To Medieval}
MLO61746	Monument	c. 585m WSW	Roman to Medieval	Newham Way [Beckton Nursery], E6 {Ditch - Roman To Medieval}

MLO61746	Monument	c. 320m WSW	Roman to Medieval	Newham Way [Beckton Nursery], E6 {Ditch - Roman To Medieval}
MLO61747	Monument	c. 300m W	Unknown	Newham Way [Beckton Nursery], E6 {Palaeochannel}. A 1994 excavation revealed that the prehistoric features were overlain by alluvial clay. At the interface level were two natural water channels running N-S. Multiple locations.
MLO61747	Monument	c. 630m W	Unknown	Newham Way [Beckton Nursery], E6 {Palaeochannel}
MLO61747	Monument	c. 450m W	Unknown	Newham Way [Beckton Nursery], E6 {Palaeochannel}
MLO61747	Monument	c. 585m WSW	Unknown	Newham Way [Beckton Nursery], E6 {Palaeochannel}
MLO61747	Monument	c. 320m WSW	Unknown	Newham Way [Beckton Nursery], E6 {Palaeochannel}
MLO66976	Monument	c. 110m E	Early Neolithic to Late Bronze Age	Newham Way (Beckton Alps Ski Slope). Several layers of alluvial clay were found, overlying a sequence of peat deposits c.2m deep. Two fallen trees were retrieved, one a yew, 4m in length, the other oak, over 6m long. These provide evidence for a yew and oak forest with a relatively tall canopy. The lowest peat layer was C14 dated to 4345-4230BC and the upper peat layer to 1415-1275BC.
MLO66977	Monument	Within PDA	Unknown	Woolwich Manor Way. Revealed in 1994 excavation. A peat sequence beneath alluvial clay deposits (similar to SMR ref: 062417) was observed in an inspection shaft south of Newham Way. These deposits were not dated but may be of a similar date to peat deposits recorded elsewhere in

				Beckton (Neolithic to Roman).
MLO66978	Monument	c. 200m N	Medieval to Post Medieval	Lonsdale Ave. In 1994 beneath tarmac and make-up of present ground surface, a layer of agricultural soil was recorded, sealing natural silt alluvium. A sherd of C13th medieval Essex Coarse Ware was retrieved from the agricultural soil.
MLO66979	Monument	c. 435m NNW	Post Medieval	East Ham Fire Station. Watching brief found beneath the pavement were two phases of agricultural activity. The later produced a clay pipe, the earlier sealed alluvial gravels.
MLO78047	Monument	Within PDA	Early Bronze Age	Woolwich Manor Way [Golfer's Driving Range Site], North Beckton, London, E6 {Early Bronze Age Wooden Platform}. An archaeological excavation was carried out by Pre- Construct Archaeology between 9th September and 18th October 2002. Two trenches were opened, the first of which was 19.5m x 16m. Within this trench 2 features were recorded. The first was a wooden platform radiocarbon dated to the Early Bronze Age. The second was a brushwood trackway, dated to the middle Bronze Age.
MLO90615	Listed Building	c. 320m N	Medieval to Post Medieval	Church of St Mary Magdalene. C12th church comprising simple west tower, nave and apsidel-ended chancel. No clerestory. Walls of coursed rubblestone with some flint and tiled roofs. Tower early C16th.
MLO98317	Monument	Within PDA	Middle Bronze Age to Post Medieval	Woolwich Manor Way [Golfer's Driving Range Site], North Beckton, London, E6 {Middle Bronze Age Brushwood Trackway}. An archaeological

				<p>excavation was carried out by Pre- Construct Archaeology between 9th September and 18th October 2002. Two trenches were opened, the first of which was 19.5m x 16m. Within this trench 2 features were recorded. The first was a wooden platform radiocarbon dated to the Early Bronze Age. The second was a brushwood trackway, dated to the middle Bronze Age.</p>
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17 CARTOGRAPHIC AND DOCUMENTARY SOURCES

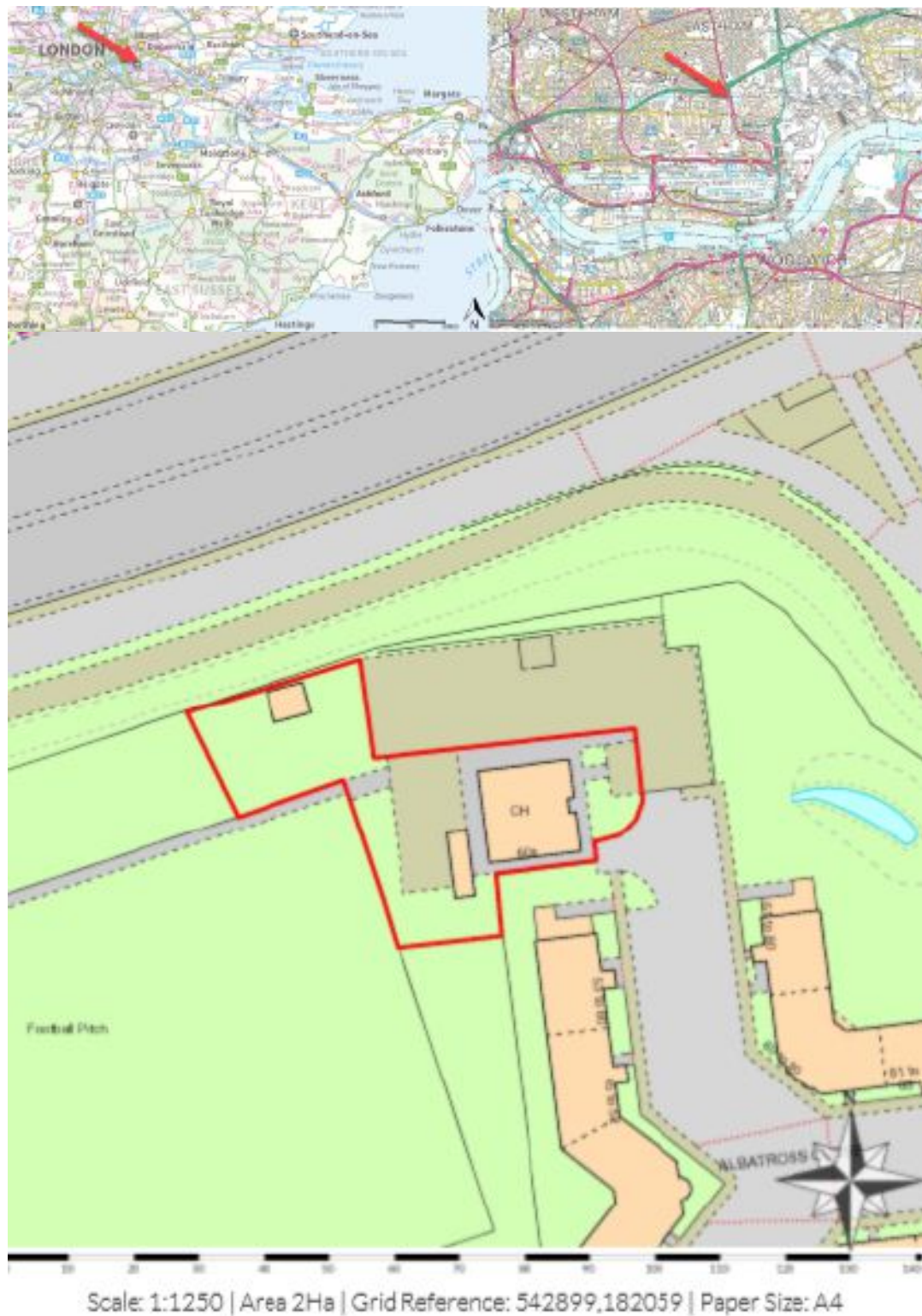


Figure 9: Site Location and plan, Scale 1:640,000; 1:40,000, 1:1,250



Figure 10: Proposed Development



Figure 11: John Chapman and Peter André 1777

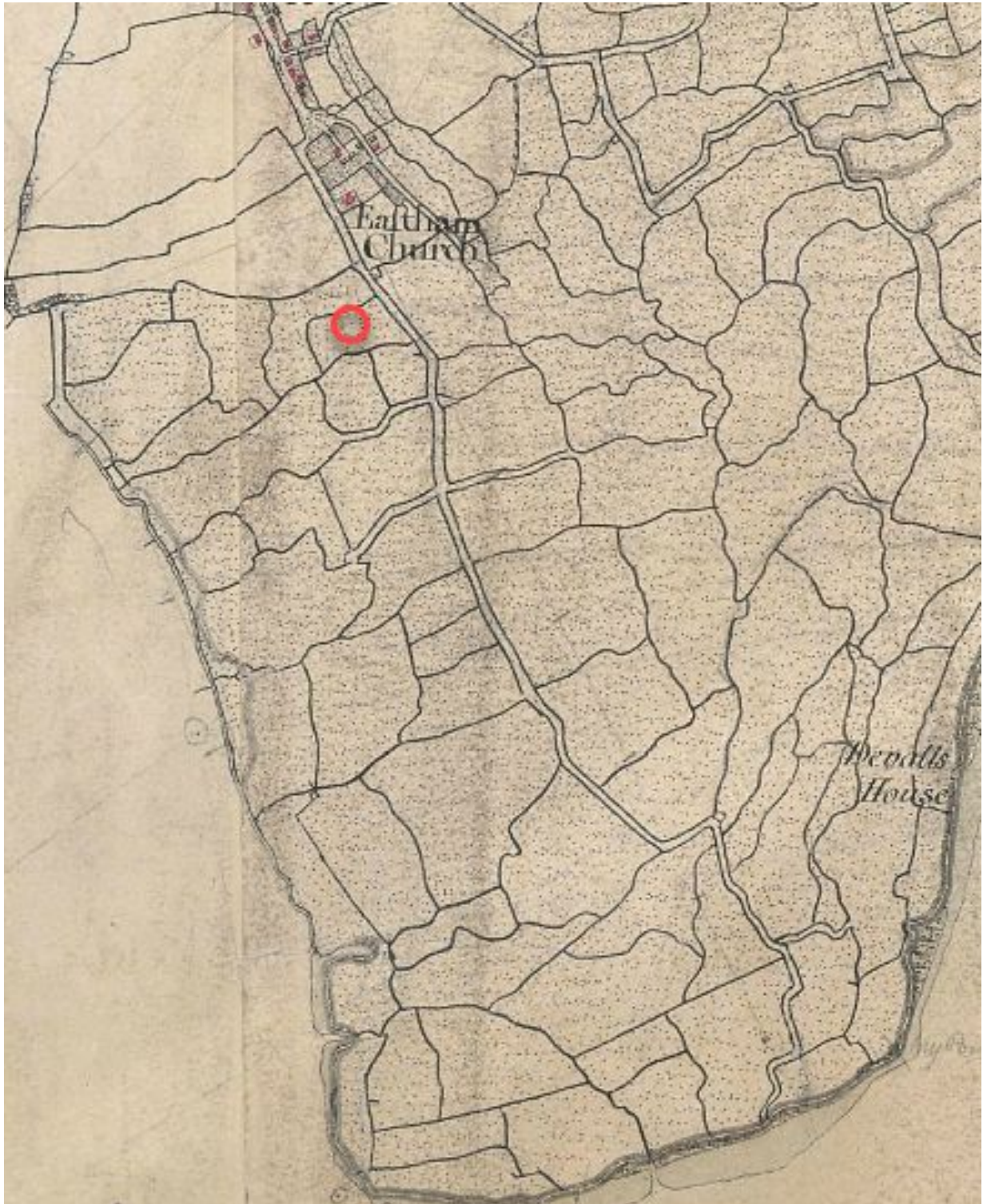


Figure 12: Ordnance Surveyors Drawing 1799



Figure 13: East Ham Tithe Map1838

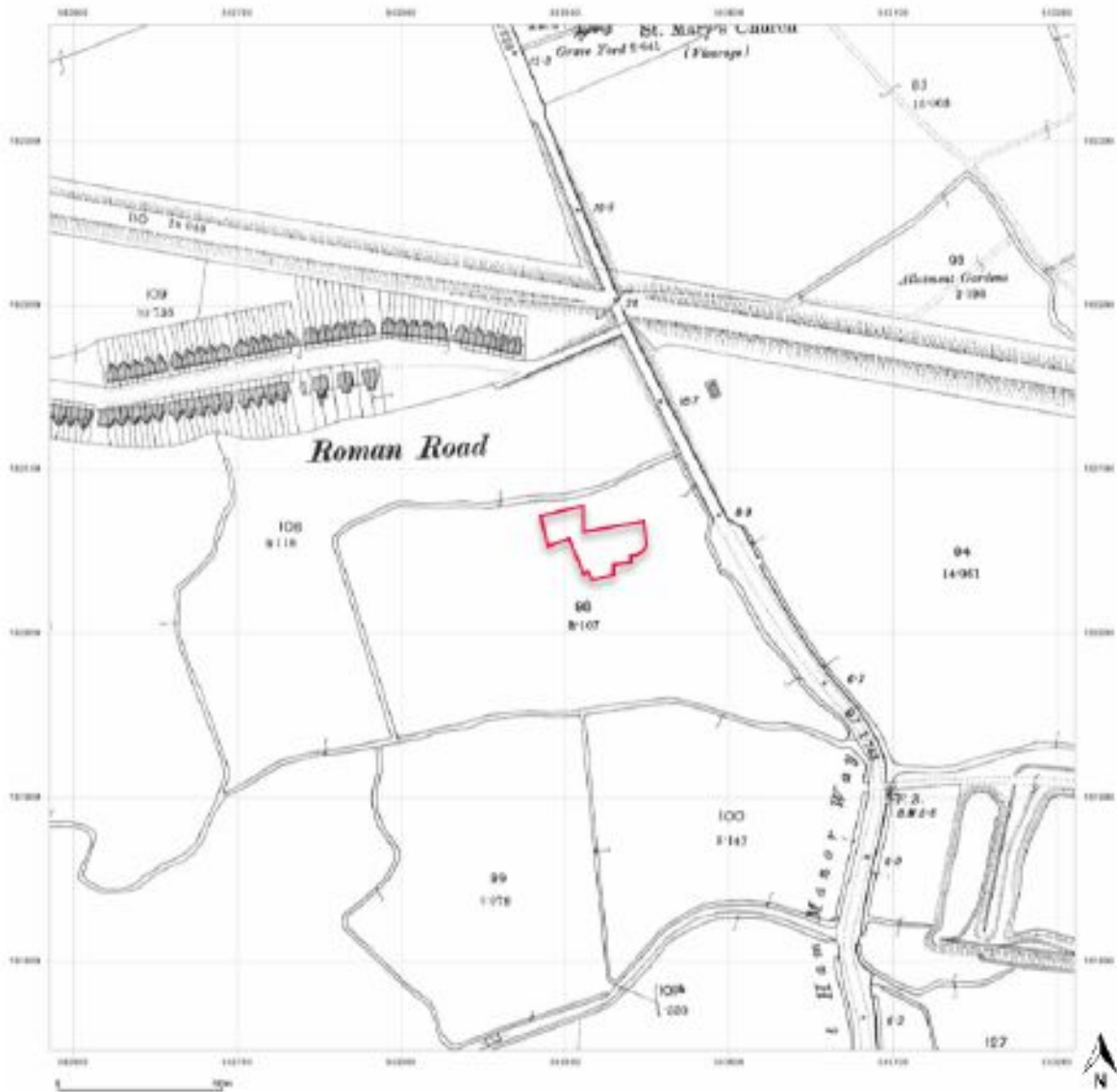


Figure 14: Historic mapping OS 1:2500 1896



Figure 15: Historic mapping OS 1:2500 1916

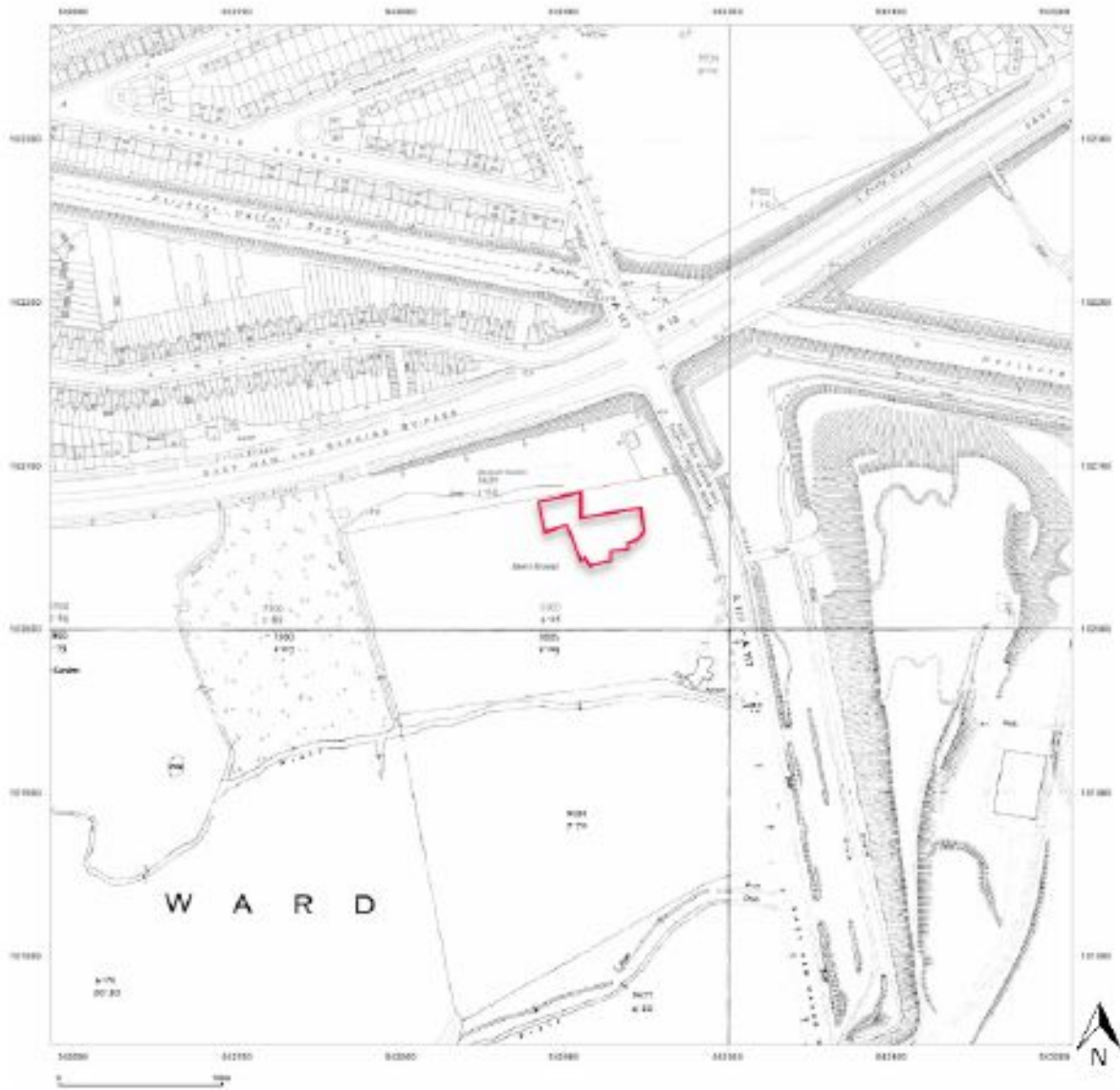


Figure 16: Historic mapping OS 1:2500 1960-62



Figure 17: Historic mapping OS 1:1250 1982-86



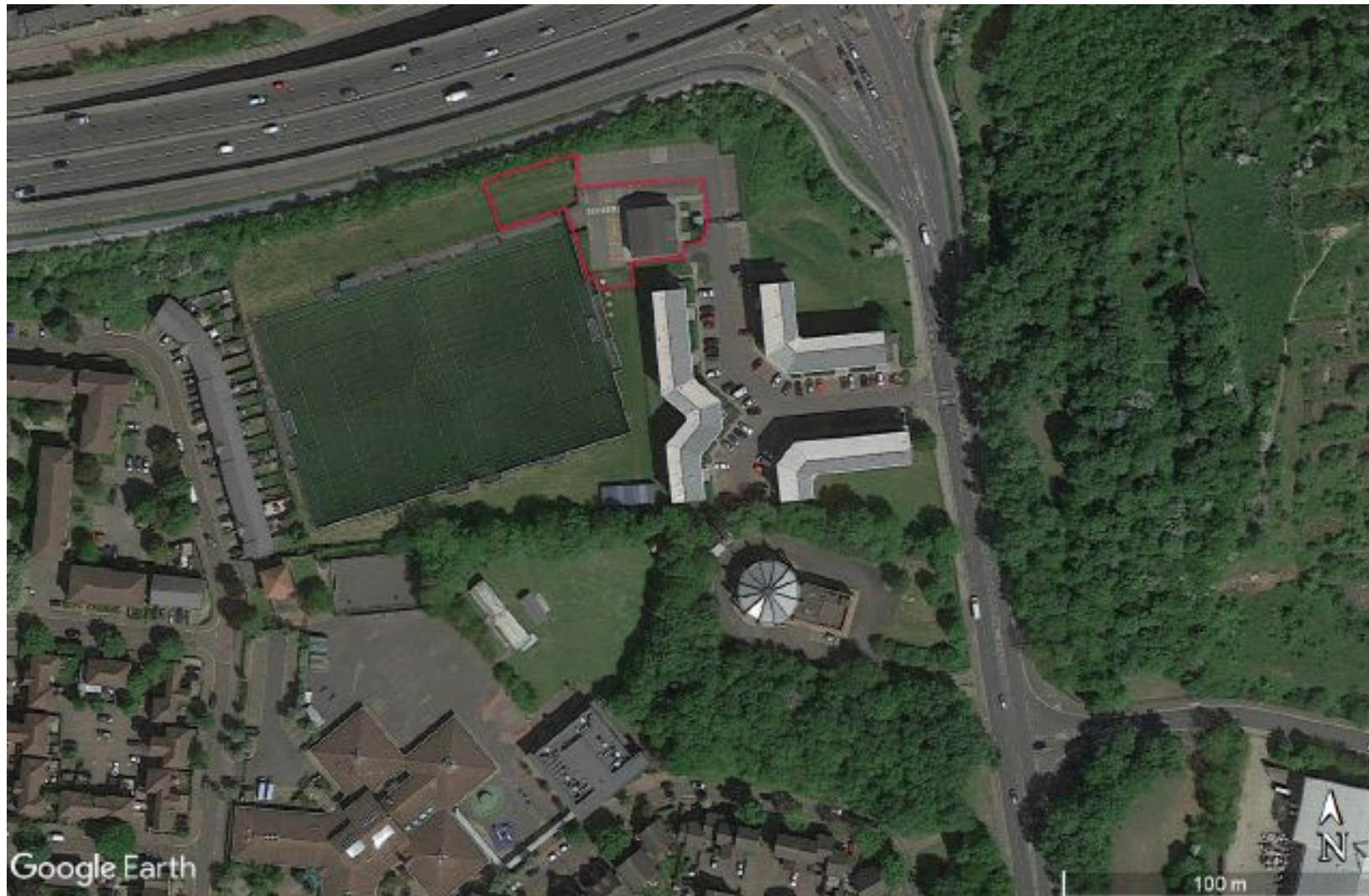
Figure 18: Historic mapping OS 1:1250 1992-1995



Plate 1: 1945 (Google Earth)



Plate 2: 2003 (Google Earth)



Google Earth

100 m



Plate 3: 2018 (Google Earth)



Plate 4: Overlay of the Pre-Construct trench plan with that of the 2018 Google Earth

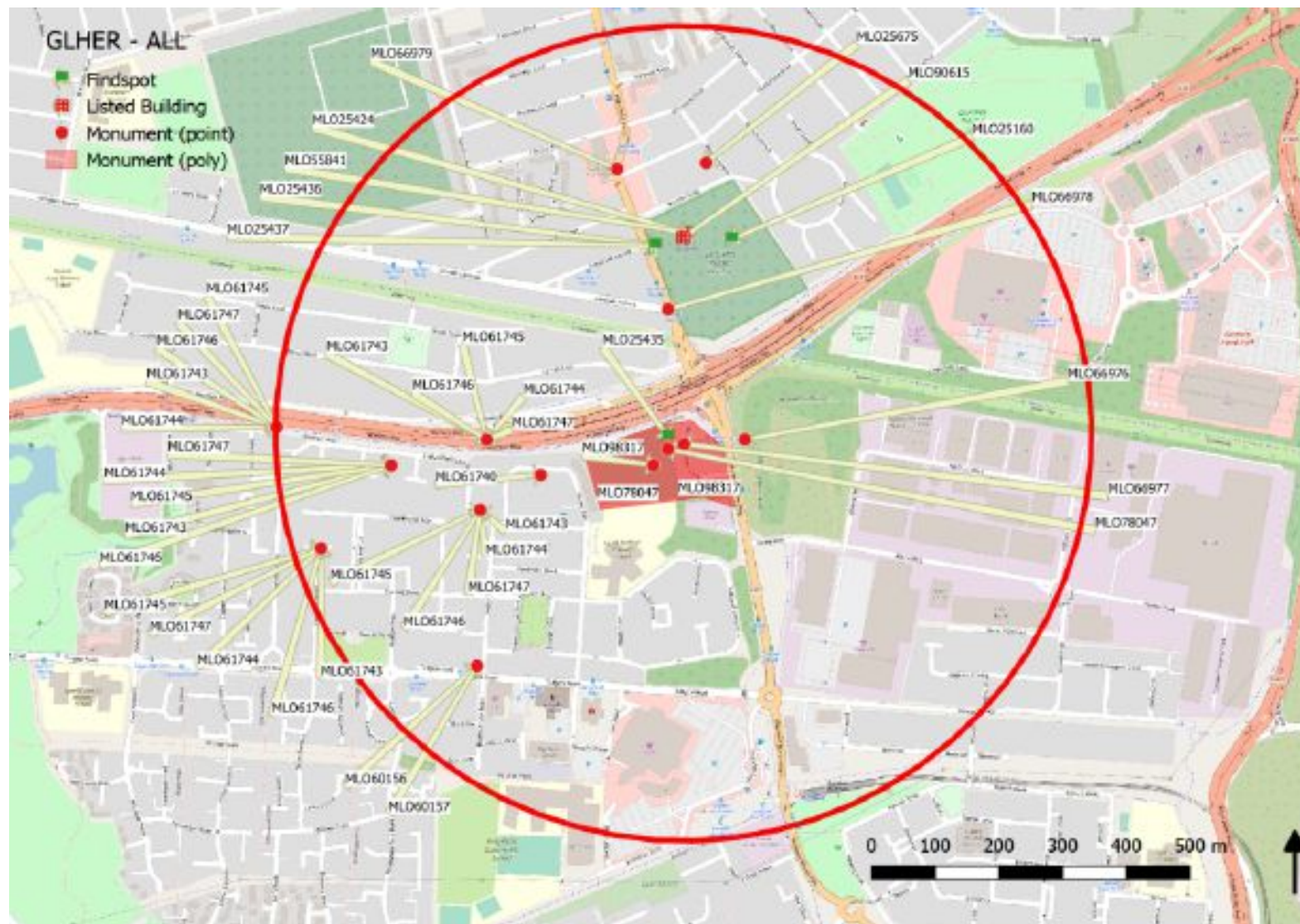


Figure 1: GLHER – Monuments Record – All

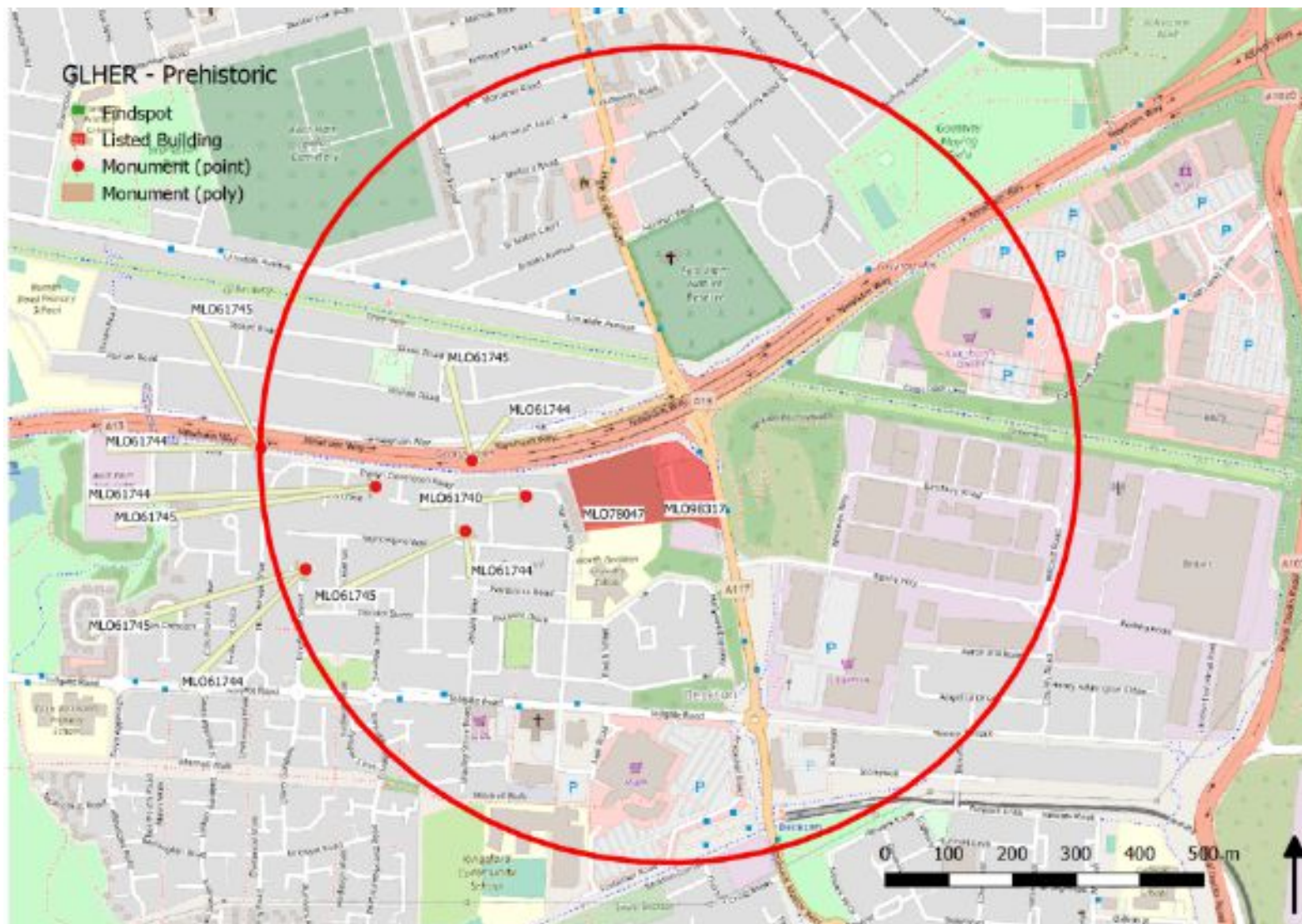


Figure 2: GLHER – Prehistoric (excl. Iron Age)



Figure 3: GLHER – Iron Age to Roman

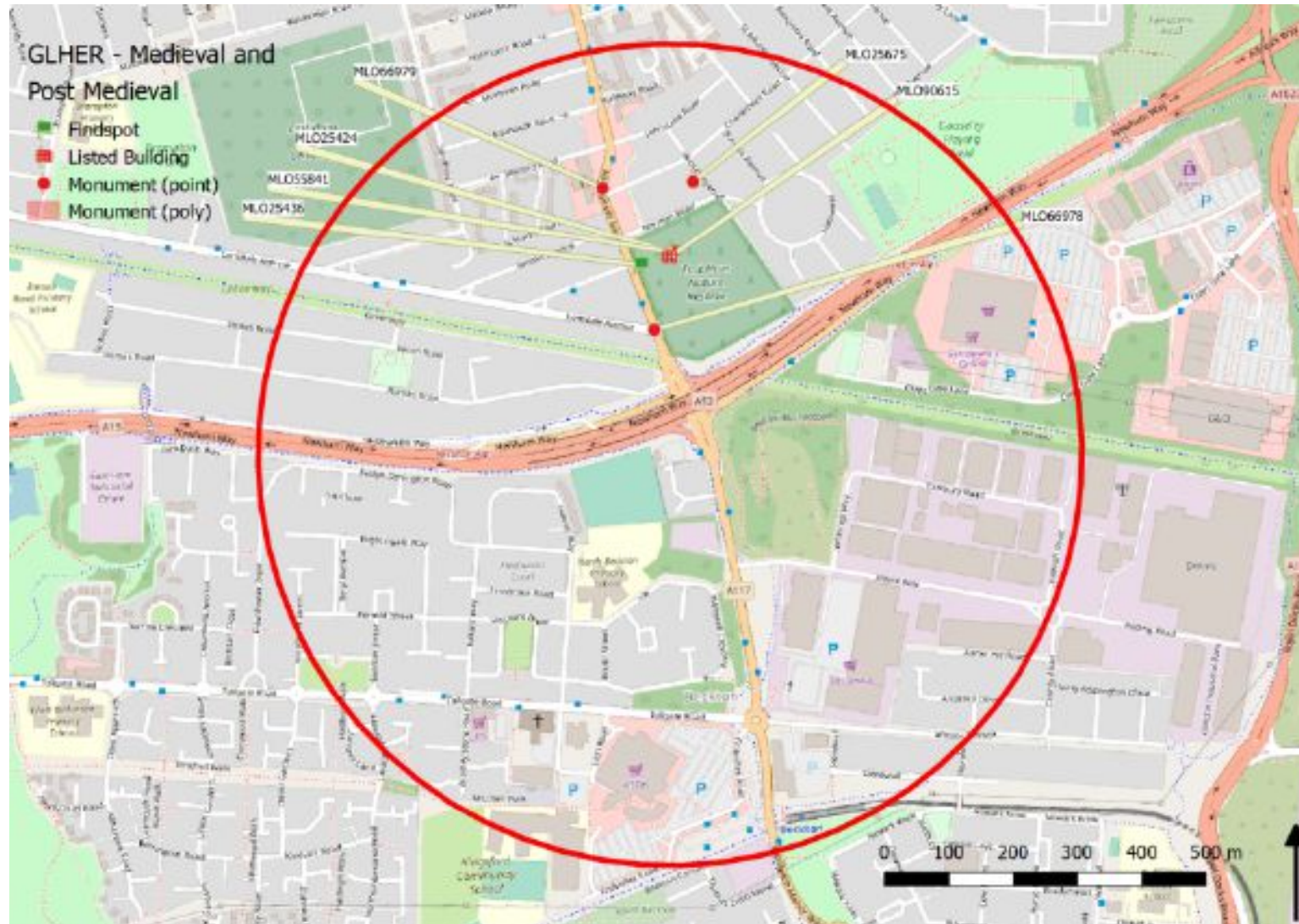


Figure 4: GLHER – Medieval and Post Medieval

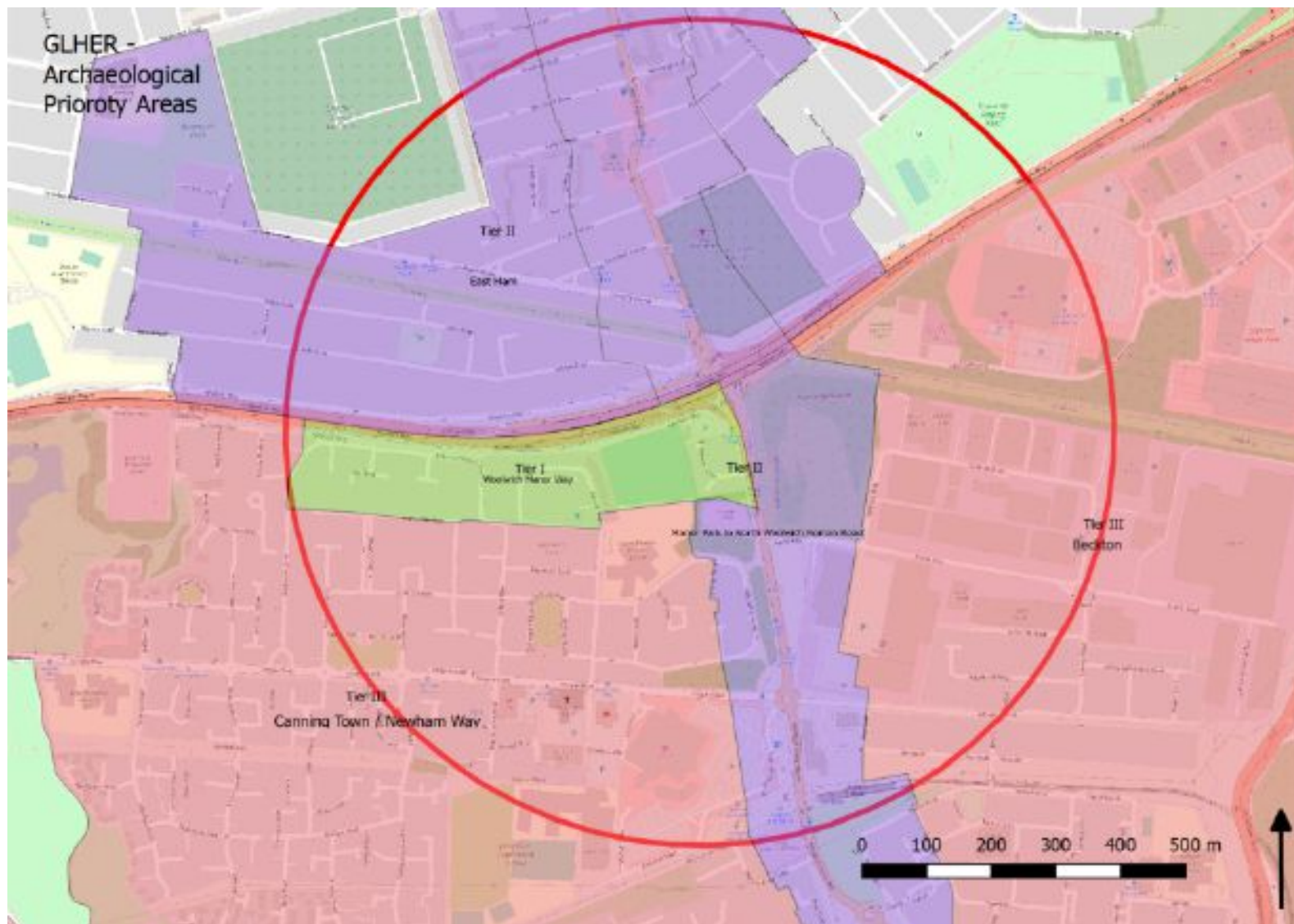


Figure 5: GLHER Archaeological Priority Areas

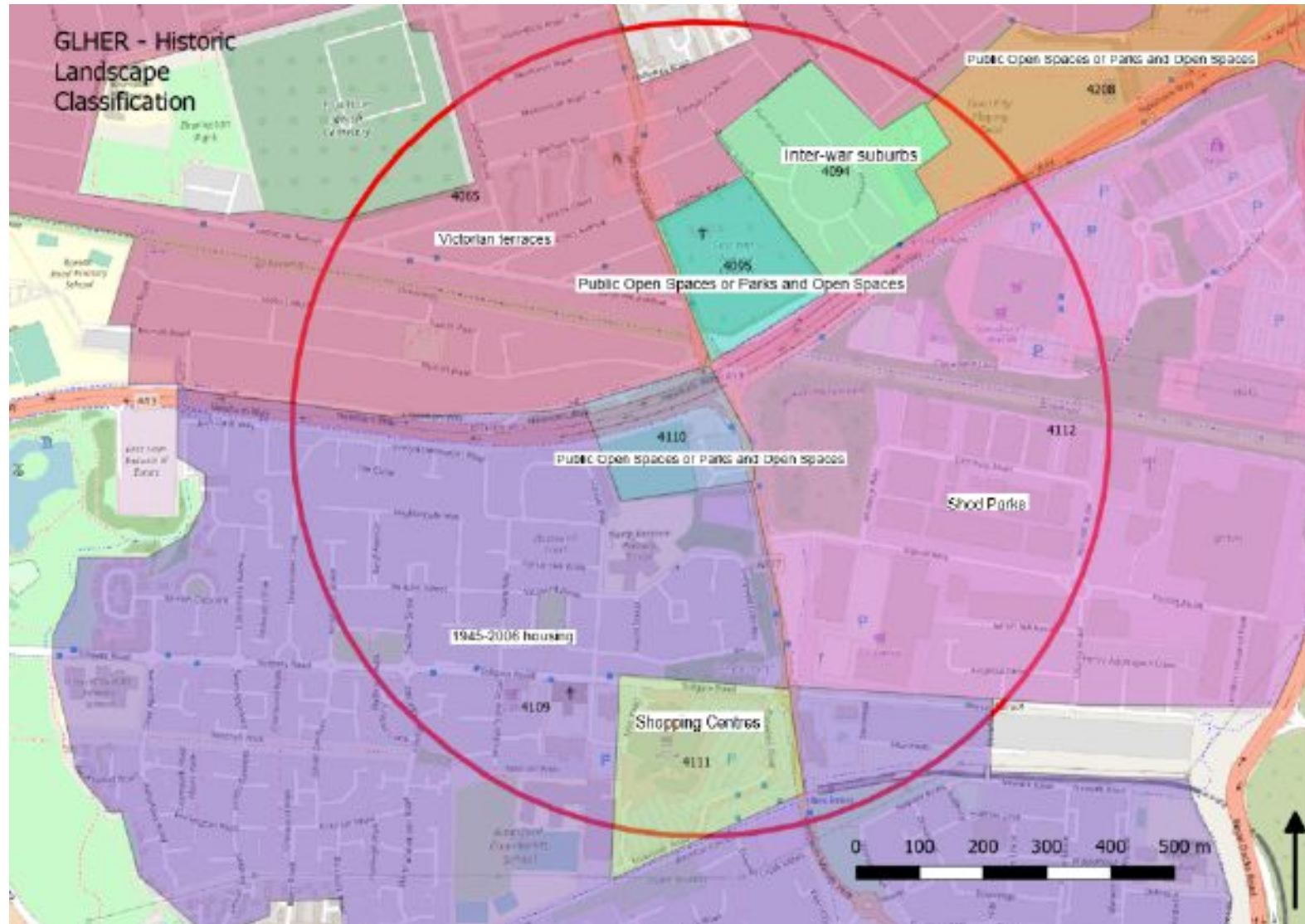


Figure 6: GLHER Historic Landscape Classification

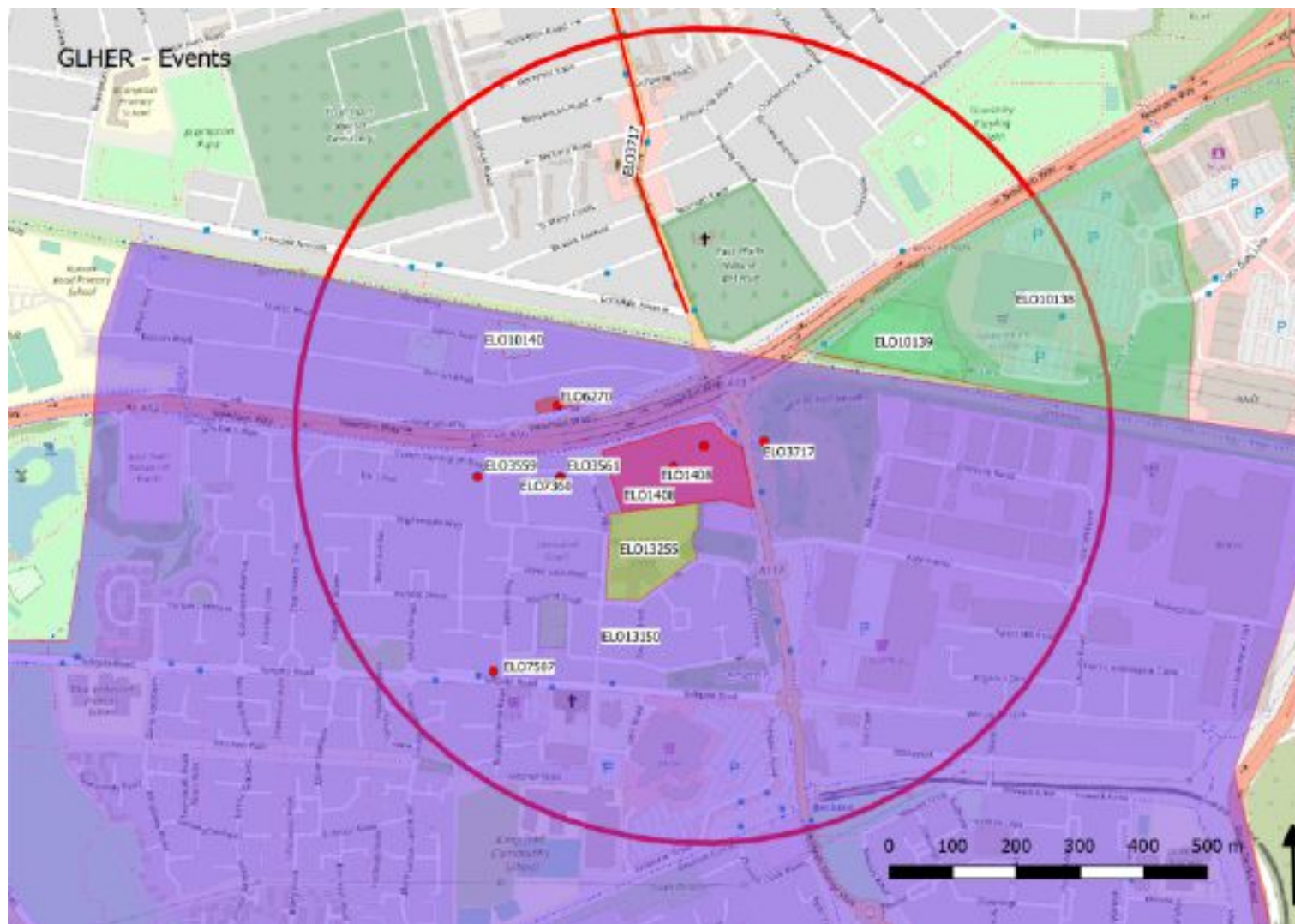


Figure 7: GLHER Events

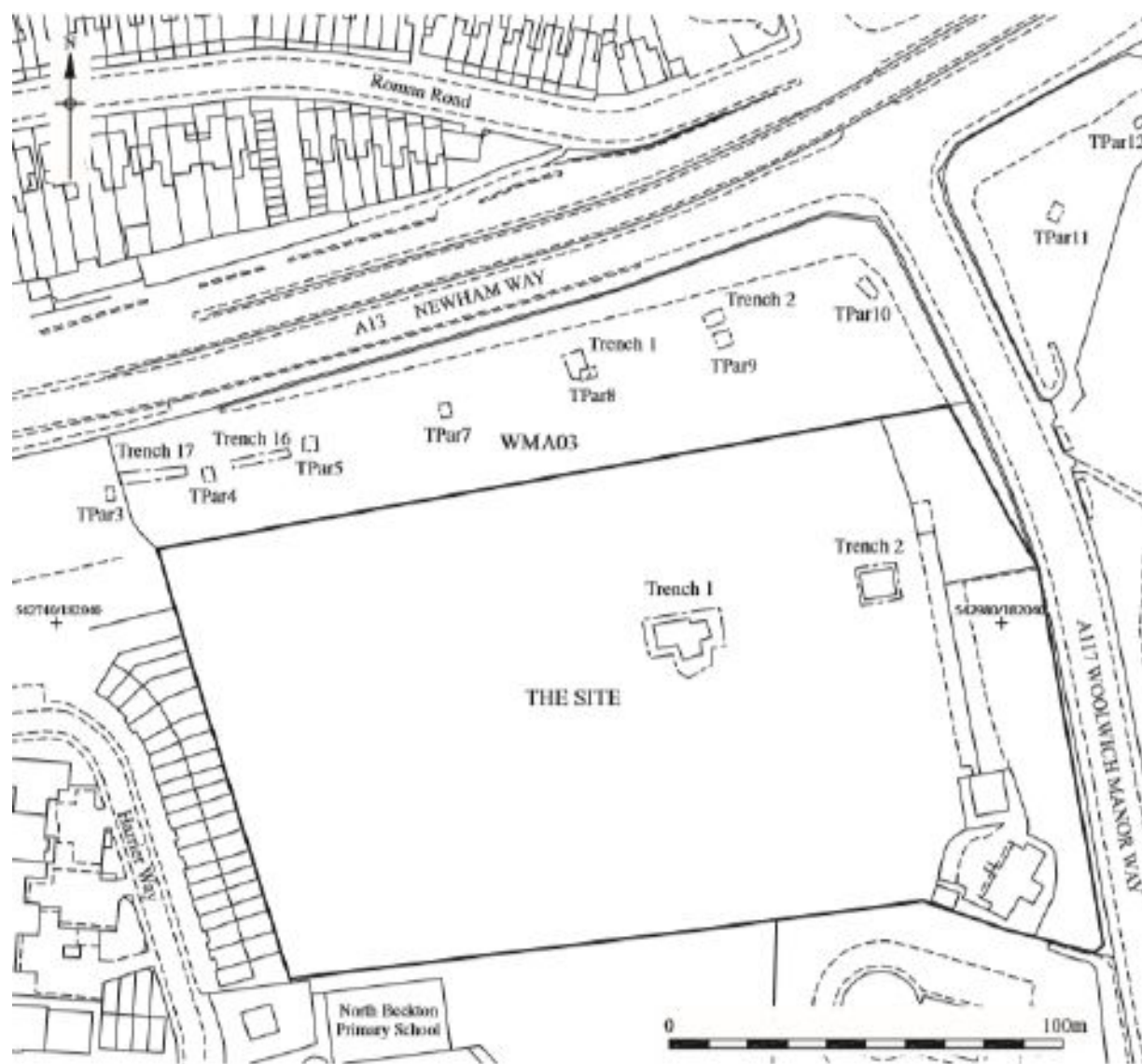


Figure 8: Previous trench location at the PDA and trenches on the adjoining A13 improvement scheme