FORMER FORD STAMPING PLANT, KENT AVENUE, DAGENHAM, LONDON BOROUGH OF BARKING AND DAGENHAM, AN ARCHAEOLOGICAL EVALUATION

SITE CODE: KNV17

LOCAL PLANNING AUTHORITY: LONDON BOROUGH OF BARKING AND DAGENHAM

FEBRUARY 2018

PRE-CONSTRUCT ARCHAEOLOGY

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Site Code:	**KNV17**
Central NGR:	**TQ 49280 83202**
Local Planning Authority:	**London Borough of Barking and Dagenham**
Planning Reference:	
Commissioning Client:	**CgMs Consulting**
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1 ABSTRACT

1.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited between 30th October 2017 and 16th January 2018 on land at the Former Ford Stamping Plant, Kent Avenue, in the London Borough of Barking and Dagenham.

1.2 A total of ten archaeological evaluation trenches were excavated, positioned so as to maximise coverage within the area. The aim of the trenching strategy was to evaluate the archaeological potential of the site, to determine the presence (or absence) of any surviving archaeology and to understand how the proposed works would or would not affect those remains.

1.3 The evaluation revealed the presence of well developed prehistoric peat beds, which included the remains of a prehistoric forest, prehistoric and medieval pits and post-holes and air raid shelters that dated to the Second World War.

2 INTRODUCTION

2.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited between 30th October 2017 and 16th January 2018 on land at the Former Ford Stamping Plant, Kent Avenue, Dagenham, London Borough of Barking and Dagenham (Figure 1). The project was managed by Helen Hawkins of Pre-Construct Archaeology Ltd and was designed and commissioned by CgMs Heritage (part of the RPS Group). The archaeological work was supervised by Guy Seddon of Pre-Construct Archaeology Limited.

2.2 The site was centred at National Grid Reference TQ 49280 83202. The site comprised a roughly rectangular shaped plot of land which was bound to the north by the A1306, (New Road), to the west by Chequers Lane, the east by Kent Avenue and to the south by railway lines and the A13 (Figure 2). The site comprised a fenced-off, demolition levelled site measuring c. 17.9 hectares.

2.3 The Archaeology Advisor to the London Borough of Barking and Dagenham, Adam Single of the Greater London Archaeological Advisory Service (GLAAS) at Historic England, monitored the project on behalf of the LPA.

2.4 Pre-Construct Archaeology Ltd was commissioned by CgMs Heritage (part of the RPS Group) to undertake works necessary to implement the discharge of an archaeological planning condition attached to planning permission for development.

2.5 The site lies within the Ripple Road Archaeological Priority Area (HER Ref: DLO37897) as defined by the London Borough of Barking & Dagenham, which covers the geological change from Thames foreshore peat deposits to the gravel to the north. The site does not lie within the vicinity of a Scheduled Monument, Historic Battlefield or Historic Wreck site.

2.6 The primary objective of the evaluation was to establish the presence or absence of any archaeological remains, particularly relating to the early prehistoric periods.

2.7 All works were undertaken in accordance with the following documents:

- The Written Scheme of Investigation
- Greater London Archaeology Advisory Service: Standards for Archaeological Work (GLAAS 2015)
- MoRPHE (English Heritage, 2006).

3 PLANNING BACKGROUND

3.1 National Guidance: National Planning Policy Framework

3.1.1 The National Planning Policy Framework (NPPF) was adopted on March 27th 2012, and now supersedes the Planning Policy Statements (PPSs). The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications. Chapter 12 of the NPPF concerns the conservation and enhancement of the historic environment.

3.1.2 In considering any proposal for development, including allocations in emerging development plans, the local planning authority will be mindful of the policy framework set by government guidance, existing development plan policy and of other material considerations.

3.2 Regional Guidance: The London Plan

3.2.1 Additional relevant planning strategy framework is provided by The London Plan, published January 2011. It includes the following policy of relevance to archaeology within central London:

Historic environments and landscapes

POLICY 7.8 HERITAGE ASSETS AND ARCHAEOLOGY

Strategic

A London's heritage assets and historical 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 utilising their positive role in place shaping can be taken into account.

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

Planning decision

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

D Development affecting heritage assets and their setting 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 assets or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that assets.

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 organizations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their setting where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

3.3 London Borough of Barking and Dagenham, Local Plan: Strategic Policies

3.3.1 The relevant Development Plan framework is provided by the Barking & Dagenham Local Plan Core Strategy Development Plan Document, adopted July 2010. Relevant policy includes:

POLICY CP2: PROTECTING AND PROMOTING OUR HISTORIC ENVIRONMENT

Barking and Dagenham has a rich local history. Signs of our fishing, maritime and industrial heritage can still be seen for example at Barking Town Quay, the Ford works in Dagenham, and the Malthouse and Granary buildings on Abbey Road. The Becontree Estate, the Curfew Tower and remains of Barking and Abbey, Eastbury Manor House, Valence House and Dagenham Village are also important symbols of our past. However, compared to many other areas the Borough has relatively few protected historic environment assets such as listed buildings and conservations areas. With this in mind the Council will take particular care to:

- **Protect and wherever possible enhance our historic environment.**
- **Promote understanding of and respect for our local context.**
- **Reinforce local distinctiveness.**
- **Require development proposals and regeneration initiatives to be of a high quality that respects and reflects our historic context and assets.**

3.3.2 Further guidance is provided in the Borough Wide Development Policies:

POLICY BP3: ARCHAEOLOGY

The conservation or enhancement of archaeological remains and their settings will be secured by:

A. Requiring an appropriate assessment and evaluation to be submitted as part of the planning application for any developments in areas of known or potential archaeological interest.

B. Operating a presumption in favour of the conservation of scheduled ancient monuments and other nationally important archaeological sites and their settings.

C. Requiring the conservation in situ of other archaeological remains or, where this is not justifiable or feasible and the need for the development and or other material considerations outweigh the importance of the remains, making provision for their excavation, recording and dissemination. Where appropriate, access to and interpretation of in-situ archaeological remains should be provided, if this is possible without having a detrimental impact on the site.

3.3.3 In terms of relevant designated heritage assets, as defined above, no designated World Heritage Sites, Registered Parks, Scheduled Monuments, Historic Battlefield sites or Historic Wreck sites lie within the vicinity of the site. The site lies within the Ripple Road Archaeological Priority Area (HER Ref: DLO37897) as defined by the London Borough of Barking and Dagenham.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 The British Geological Survey (BGS Website, 2016) records the solid geology of the northern half of the study site as London Clay Formation (Clay, Silt and Sand) and the southern half of the study site as Lambeth Group (Clay, Silt and Sand). Superficial deposits are recorded throughout the study site as Alluvium (Clay, Silty, Peaty, Sandy) with Taplow Gravel Formation (Sand and Gravel) running across the northern boundary.

4.1.2 For more detail, a comprehensive, site specific bore-hole study and geoarchaeological deposit model was carried out by Quaternary Scientific (Quest), (Young & Batchelor, 2017). The deposit model indicated that in the northern part of the site, the gravel terrace was present at a high level. The terrace sloped down steeply to the south, being overlain with extensive deposits of alluvium and peat, reflecting the site's location on the periphery of the marshland of the River Thames.

4.2 Topography

4.2.1 The study site is located on generally level ground at a height of c.1m above Ordnance Datum (OD). The north of the study site is slightly higher ground and generally level at a height of c.3.4m.

4.2.2 The Gores Brook runs north-south c.250m west of the study site towards the River Thames which is located c.1.25km to the south of the study site. The Dagenham Breach is located c.220m south east of the study site, which is an area of flooded marsh.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 The following represents a summary of the archaeological potential, as presented in the desk based assessment, (Archer, 2016):

5.2 Palaeolithic, Mesolithic & Neolithic

5.2.1 Two concentrations of early Mesolithic worked flint were found during excavations at Beam Washlands c.750m east of the study site. A sequence of alluvial deposits were sampled c.600m south west of the study site, including peat which was thought to have been formed from marginal woodland close to the river/fenlands during the Late Mesolithic through to the Early Bronze Age.

5.2.2 Fieldwork at the Hornchurch Marshes site, c.1.3km east of the study site was carried out following the discovery of fine-grained mineral sediments, peat deposits and substantial parts of well-preserved ancient woodland. The earliest sediments recorded were fine-grained mineral rich deposits, apparently deposited in a freshwater fluvial environment. Peat accumulation occurred between c.6890-6560 years BP through to c.4160-3710 years BP, a period which was characterised by mixed fen woodland and followed by a return to fine-grained mineral rich sedimentation.

5.2.3 An early Neolithic pit or post hole was located during excavations at Dagenham Park Community School c.600m north of the study site. The Dagenham Idol, a wooden figurine dated to the Neolithic period, was discovered in 1922 during installation of sewer pipes c.300m west of the study site. The skeleton of a deer was discovered nearby, possibly within the same peat layer. Neolithic peat deposits were identified during a geoarchaeological assessment at Merrielands Crescent c.300m west of the study site.

5.2.4 A borehole sample of peat from the embankment just to the north of the current Wantz Stream channel has been radiocarbon dated to the Late Neolithic or Early Bronze Age period and included a leaf-shaped arrowhead find.

5.2.5 Several ditches were observed during an archaeological evaluation at Digby Garden allotments c.400m north of the study site; they were tentatively dated to the prehistoric period due to the presence of burnt flint in one of the ditches. A pit or post hole of possible prehistoric date was discovered during a watching brief at Dagenham Park Community School c.600m north of the study site. Construction of dams during the early 18th century to close the Dagenham Breach revealed moorlogs consisting of partly rotten yew timber not decayed, brushwood, hazel nut and stag antlers. These were considered to possibly be prehistoric although due to the length of time since the find, it is acknowledged that they could be of any date ranging from prehistory to the Post Medieval period.

5.2.6 There is a lack of evidence relating to the study area for the Palaeolithic period. Based on current geotechnical surveys from the study site, it is likely that the peat identified within the

study site is of a similar Mesolithic date to that identified by Batchelor at Hornchurch Marshes to the east. Current evidence indicates that there was activity within the study area during the Mesolithic and Neolithic periods and that activity of various levels took place across the wider area.

5.3 Bronze Age, Iron Age & Roman

5.3.1 A Bronze Age causeway, constructed of gravel, burnt flint and sand, was identified c.550m west of the study site as part of a peat deposit. A further Bronze Age peat deposit was recorded c.150m south east of the study site.

5.3.2 Archaeological investigations at Dagenham School c.600m north of the study site uncovered evidence of a Late Bronze Age to Early Iron Age landscape, including a ditched enclosure. Quantities of briquetage were found in the various ditches and on top of the possible relict land surface, which may have come from a pottery kiln or were used in salt production.

5.3.3 Possible Middle Iron Age ditch termini, were found during an excavation at Beam Washlands c.650m east of the study site.

5.3.4 A Late Iron Age/Early Roman settlement site was identified c.650m east of the study site during excavations at Beam Washlands comprising an agricultural area to the south, an industrial area to the north and a cremation cemetery.

5.3.5 The presence of the causeway is indicative of Bronze Age activity within the wider area whilst it seems likely that there was agricultural and possibly industrial salt production within the wider study area during the late Bronze Age, Iron Age and Roman period. However it seems likely that this activity would have been concentrated to the north beyond the marsh land limit during these periods.

5.4 Saxon/Early Medieval & Medieval

5.4.1 Dagenham was one of the earliest recorded Anglo-Saxon settlements in Essex, first mentioned in a Charter of AD 687 whilst at the time of the 1086 Domesday Survey, the manor of Dagenham fell within the larger holding of Barking.

5.4.2 The Manor of Cockermouth is first attested in AD1250 and is located by the HER c.220m north west of the study site. It consisted of a rectangular piece of land c.600 acres in extent of which nearly two thirds was marsh.

5.4.3 Documentary sources suggest that flooding in the 14th and 15th centuries flooded the entire area south of the study site which breached the flood defences and was allowed to become permanent.

5.4.4 Although there is a lack of evidence for the Saxon and Medieval periods, it seems likely that the study site would have lain in marsh land used for pasture.

5.5 Post Medieval and Modern

5.5.1 Chapman and Andre's Map of 1777 shows the study site in an area of marshland called 'Dagenham Marsh', immediately south east of 'Cockermouth'. The village of Dagenham is located c.1.25km north east of the study site. A stream is depicted running west of the study site whilst there is a body of water south of the study site called 'the Gulph', which appears to be the early name for the Dagenham Breach.

5.5.2 The 1799 Ordnance Survey Drawing shows the study site in a similar situation. The site itself is shown in more detail with individual boundaries shown within the site. The road from Cockermouth southwards to the Thames, now Chequers Lane, is shown and had previously been known as Marsh Way (1563), West Marsh Lane (1630) and Breach Lane (1752). Cockermouth itself is now named 'America Farm'. The Gulph has increased in size and a small pond is shown immediately north of the study site.

5.5.3 The 1841 Dagenham tithe map shows the study site in a similar situation in land described as 1769 Horse Marsh (grass), 1770 Long Three Acres (arable), 1771 Part of Five Acre Marsh (grass), 1772 Part of Five Acre Marsh (grass), 1773 Acre Piece (grass), 1774 Dove House Marsh (grass), 1775 Top Marsh and Barn (grass), 1834 Ten Acre Marsh (arable) and 1836 In Old Field Common (arable). The field boundaries have been altered slightly since 1799 and New Road has been constructed to the north of the study site.

5.5.4 The Ordnance Survey Maps of 1864 and 1897 show no change to the study site. The Tilbury and Southend Railway was constructed in 1854 and runs parallel to the southern boundary of the study site. By 1897, terraced residential housing has been developed east of Chequers Lane.

5.5.5 The Third Edition Ordnance Survey Map of 1919-20 shows no change to the study site. The railway has been expanded with the construction of Dagenham Dock station in 1908 and various goods and coal sidings. These were connected to the works to the south west of the station. Allotment gardens are marked on land immediately south of the study site.

5.5.6 The Revised Edition Ordnance Survey Map of 1939 shows the Briggs Motor Bodies and Kelsey-Hayes Wheel Company manufactories on the study site, both of which were constructed in 1932 after the land was bought for the Ford Motor Company. The Briggs building occupies the north central area of the study site whilst the Kelsey-Hayes occupies the south east of the study site. The power station building is shown in the centre of the study site in 1932 and 1939. A sports ground occupies the south west of the study site whilst there are associated railway sidings connecting the works to the railway. The Ford works have been constructed south of the railway and various railway connections have been constructed to connect these works to the railway as well. Further residential development has occurred north of New Road.

5.5.7 A high explosive bomb is shown to have fallen in the vicinity of Kent Avenue during the Blitz of 1940-41 although there doesn't appear to have been serious damage caused on the study site. The 1945 Google Earth Image shows minor changes to the study site with construction in the north west tip of the site and north east of the site.

5.5.8 An extension to the east side of the power station building is shown in 1953]. Major changes are shown to the buildings on the 1963 Ordnance Survey Map, which have now been amalgamated into one building. This presumably took place after Briggs and Kelsey-Hayes were purchased and absorbed by Ford in the early 1950s. Extensions have been constructed in the south west of the study site over the sports ground, in the north east of the site and the south east of the site. A large factory has been built east of the site.

5.5.9 The Ordnance Survey Map of 1972-90 shows no change on site. The Ford Works have continued to expand to the west of the site. The 1999 Google Earth Image shows no change to the majority of site although it does show the demolition of buildings in the north west tip of the site. This demolition is also shown on the 2015 Google Earth Image which demonstrates the removal of railway sidings adjacent to the southern boundary of the site and the demolition of the works to east and west of the site. The Ford Motor Works ceased car production in 2002 although part of the site was retained as the Dagenham Diesel Centre.

5.5.10 The existing works have undergone extensive changes since original construction in 1932, with major expansion particularly in the 1950s. The power station building was extended to the east by 1953 to accommodate the power demands from the enlarged works and improvements in technology and machinery.

5.5.11 The study site would have lain in a mixture of marsh land used for pasture and agricultural land until the construction of the Works in 1932.

6 ARCHAEOLOGICAL METHODOLOGY AND OBJECTIVES

6.1 The purpose of the archaeological investigation was to determine the presence or absence of surviving features at the site and, if present, to assist in formulating an appropriate archaeological mitigation strategy. All works were undertaken in accordance with the guidelines set out by Historic England and the Chartered Institute of Field Archaeology.

6.2 As outlined in the Written Scheme of Investigation (Hawkins 2017), the evaluation aimed to address the following issues:

- To examine the top of the gravel, where possible, for the presence or absence of prehistoric remains;
- To establish the presence or absence of palaeo-environmental remains and, if present, assess their potential to contain information about the former environment of the site and / or human activity in the vicinity;
- To establish the presence or absence of archaeological remains of any other period, and allow the design of a suitable mitigation strategy if appropriate;
- To establish the extent of all past post-depositional impacts on the archaeological resource.

6.3 Each trench was excavated in the following manner.

6.3.1 The trench locations were marked out using marker paint and GPS and a permit to break ground was obtained by supervisor.

6.3.2 A 360° tracked mechanical excavator fitted with a breaker broke out the slab. The broken slab was then cleared by an excavator fitted with a bucket attachment following slab removal and all re-bar was removed.

6.3.3 Once it was deemed safe to do so the excavator then proceeded to dig to a depth of 1.2 metres or to the top of the archaeological horizon.

6.3.4 Excavated material was tested on site for contaminants.

6.3.5 After digging to a depth of 1.2m the trenches were left for one hour whilst an air quality test was carried out.

6.3.6 Access ladders were then installed and a qualified archaeologist inspected the trench. Air monitoring took place throughout.

6.3.7 If no further archaeological investigation was needed at this point excavation recommenced to a depth of 2.4m.

6.3.8 At 2.4m depth trench boxes were installed and the trench was left again for one hour and further air tests carried out.

6.3.9 At this point the excavations become confined spaces and anyone who entered them had to have to have confined space training.

6.3.10 The trenches were then excavated to a maximum depth of 5m below the current ground level, with the trench boxes being dropped down as necessary.

6.3.11 The trench locations were set out on the ground by the groundworks contractor (GC) and PCA using a Leica GPS system.

6.3.12 All trench locations were scanned using a cable-avoidance tool (CAT) in advance of any breaking out or excavation and service plans were referred to.

6.3.13 Machine excavation proceeded in spits of up to 100mm at a time until either significant archaeological strata were found or natural ground exposed.

6.3.14 Archaeological features (stratigraphical layers, cuts, fills, structures) were evaluated by hand tools and recorded in plan at 1:20 or in section at 1:10 using standard single context recording methods. A full photographic record was also compiled.

6.3.15 The strategy for sampling archaeological and environmental deposits and structures was developed by PCA as necessary, with GLAAS and the Historic England Regional Archaeological Science Advisor being consulted.

6.3.16 The trench location plan was adapted during the course of the evaluation, in consultation with Historic England and CgMS Heritage. Trench 10 was expanded in order to further investigate the natural gravels in the north-east of the study site. Trenches 11 and 12 were added to the initially proposed ten trenches, to evaluate the WW2 air-raid shelters located in the north-west of the site. Trench 6 was not carried out, as the results of the other trenches suggested that it would not yield archaeological information of interest, as it was located in the much lower ground in the south of the site. Trench 5 was also aborted after four attempts to break it out in various locations only to find extensive concrete slabs, tunnels, piles and foundations associated with the Ford motor works.

6.3.17 The recording systems adopted during the investigations were fully compatible with those developed out of the Department of Urban Archaeology Site Manual, now published by the Museum of London Archaeological Service (MoLAS 1994) and with the PCA Site Manual (Taylor and Brown, 2009). The site archive was organised to be compatible with the archaeological archives produced in the London Borough of Barking.

6.3.18 The complete archive produced during the evaluation and watching brief, comprising written, drawn and photographic records, will be deposited with LAARC with site code KNV17.

7 THE ARCHAEOLOGICAL SEQUENCE

7.1 The trench plans are shown on Figures 3-7. Sections are shown on Figure 8.

7.2 Phase 1: Natural

7.2.1 The earliest deposit observed during the archaeological evaluation consisted of natural gravels of the Taplow Gravel Formation. This was observed in Trenches 2, 9, 10, 11 and 12, and recorded as [23], [47], [35], [1], [24] and [25] respectively.

7.2.2 The gravel layer reflected the results of the deposit model carried out by Quest, (Young & Batchelor, 2017), falling sharply from a high gravel terrace, running east-west, across the northern bounds of the site, towards the south. In the west of the site the level of the gravel fell from a height of 2.90m OD in Trench 12, to -1.94 in Trench 2. At the eastern end of the site the top of the gravel fell from 2.02m OD in Trench 10 to -1.43m in Trench 9.

7.3 Phase 2: Prehistoric

7.3.1 Overlying the gravels was a naturally deposited alluvial layer of silty, clayey sand. This layer was recorded in Trenches 3, 4, 8 and 9 as [37], [79], [64] and [45] respectively. The alluvium had a maximum height of -0.04m OD, to the east of the site in Trench 9 and fell towards the west, with a maximum recorded depth of -3.96m OD in Trench 4.

7.3.2 In Trench 3, within alluvial deposit [37], a part of a large cattle proximal femur was recovered, indicative of early domesticated livestock, placing this layer in the prehistoric period.

7.3.3 Sealing the alluvial clayey sand layer was a thick peat bed, observed in Trenches 3, 4, 7, and 8, where it was recorded as [60], [78], [55] and [63] respectively. The peat had a maximum height of -0.44m OD in Trench 8 in the north-east and fell to -2.60m in Trench 7 in the south-east, closer to the river.

7.3.4 The peat layer had a maximum thickness of 3.40m in Trench 4 and contained frequent naturally felled trees and roots.

7.3.5 A large Bog Oak [36] was recorded at the bottom of the peat layer [60] in Trench 3 at a height of -2.90m OD. A sample taken for C14 dating produced a result of 4600–4520 cal BC (SUERC-76801; 5772 ± 24BP), putting it in the late Mesolithic to early Neolithic period.

7.3.6 Further trees examined in Trench 8 were identified as Yew and Oak (D Goodburn, pers comm.) These were all located at a horizon of c-1.65m OD. A sample of Bog Oak [66] was taken for dendrochronological dating but no result could be obtained from the sample (pers. Comm. Ian Tyers).

7.4 Phase 3: Possible Late Iron Age

7.4.1 The peat was overlain by a further alluvial deposit that was recorded in Trenches 3, 5, 7, and 8. The alluvium had a maximum height of 0.30m OD in Trench 9 falling to -1.6m OD in Trench 7.

7.4.2 In Trench 3 the alluvium was cut by a series of pits and postholes, possibly dating to the Late Iron Age, at a height of c. -0.15m OD. The dating is based on the features being later than the late Mesolithic Bog Oak and the alluvium being dated to the Iron Age elsewhere in the area. For the context numbers and dimensions see Table 1 below. All of the features shared a similar profile, sub-circular in plan with steep, almost vertical sides, which broke sharply onto a flat base. The fills of all of the features were identical, comprising firmly compacted, blueish grey clay.

Context Number	Fill	Type	N-S (m)	E-W (m)	Depth (m)
5	4	Posthole	0.56	0.61	0.52
7	6	Posthole	0.57	0.48	0.57
9	8	Posthole	0.56	0.46	0.43
11	10	Pit	1.08	0.52	0.32
13	12	Posthole	0.6	0.53	0.46
15	14	Posthole	0.42	0.36	0.33
17	16	Pit	0.88	0.88	0.44
19	18	Posthole	0.63	0.45	NFE

Table 1: Dimensions of prehistoric features

7.4.3 No finds were recovered from any of the postholes or pits and their function was unclear.

7.4.4 In Trench 9 the alluvium was cut by a small east-west aligned palaeo-channel [46], located at 0.25m OD. It had a width of 1.72m a length of over 2m and a depth of 0.28m and contained a single fill, [40]. The fill comprised a firm, mid grey sandy, clayey silt, no finds were retrieved.

7.4.5 Overlying the palaeo-channel in Trench 9 was a 0.28m thick band of peat, [39] at 0.43m OD. Sequentially this layer appears to be the same as the layer of peat [51] in Trench 7, although this was recorded at -1.40m OD.

7.4.6 The bands of peat and the cut features in Trench 3 were all sealed by a layer of Upper Alluvium, observed in Trenches 1, 2, 3, 4, 7, 8 and 9. It comprised firmly compacted, mottled greyish blue and brownish yellow, slightly sandy clay. See Table 2 below for individual context descriptions. There was no clear horizon between the upper alluvium and the alluvium which contained the prehistoric features.

Context No	Trench No	N-S (m)	E-W (m)	Thickness (m)	Level (m OD
3	1	3.22	4.22	0.25	1.24
20	3	8.82	26.62	0.36	-0.2
22	2	5.63	18.88	1	-0.4
38	9	25.14	12	0.1	0.51
50	7	6.5	19.35	0.8	-0.6
61	8	2.38	20	0.52	0.08
77	4	20	4.47	1.1	0.04

Table 2: Upper Alluvium dimensions

7.5 Phase 4: Medieval

7.5.1 In Trench 10, on the gravel bank in the north-east corner of the site, were two postholes [28] and [34], a pit [30] and a ditch [32], located at c.1.78m OD. No finds were retrieved from either of the postholes, but pottery dating to the 12th Century was recovered from both the pit and the ditch.

7.5.2 The postholes were both sub-circular in plan with steep sides that had a sharp break to a flat base. Posthole [28] measured 0.69m+ north-south by 1.07m east-west and had a depth of 0.35m. Posthole [34] measured 0.51m+ north-south by 0.75m east-west and had a depth of 0.21m. Their fills were very similar, comprising firmly compacted, mid grey sandy, silty clay.

7.5.3 Ditch [32] was linear in plan with concave sides, breaking gently to a slightly concave base. It ran on a north-south alignment across the trench, continuing beyond the northern limit of excavation and was truncated to the south by a WW2 air-raid shelter. It had a width of 1.10m and a depth of 0.20m. The ditch contained a single fill [31], loosely compacted, light greyish brown silty clay with occasional inclusions of charcoal flecks, and pottery dating to the 12th Century.

7.5.4 Pit [30] cut into the top of ditch [32], was sub-circular in plan with steep sides and a flat base. It measured 1.15m+ north-south by 1.60m east-west and had a depth of 0.20m. The fill of the pit [29], was firmly compacted, dark greyish brown, silty clay with frequent inclusions of burnt flint and charcoal flecking. It also contained daub and pottery dating to the 12th Century.

7.6 Phase 5: Post-Medieval

7.6.1 The features in Trench 10 were sealed by layer [80] = [81] which comprised firmly compacted, mid greyish brown, sandy, silty clay which contained occasional – moderate amounts of coal and cbm fragments. The layer probably represents a ploughsoil, as the area of the site was known to be fields during this phase.

7.7 Phase 6: Modern

7.7.1 The trenches in the north-west of the site, Trenches 1, 11 and 12, and north-east, Trench 10 all contained large concrete tunnels, [82], [83], [84], [85] and [86]. These tunnels corresponded with the Plan of Briggs Motor Bodies Works 1940 which identified them as air-raid shelters, constructed for the use of the factory workers during WWII (Figures 6 and 7).

7.7.2 The site was sealed by c.0.40m of re-enforced concrete, dating to the 20th Century when the site was in use as the Ford Stamping Plant.

8 ARCHAEOLOGICAL PHASE DISCUSSION

8.1 Phase 1: Natural Deposits

8.1.1 The Taplow Gravel deposits were observed in Trenches 1, 2, 9, 10, 11 and 12, all located towards the north of the site. In the northwest of the site the gravel fell from a height of 2.90m OD in Trench 12, to -1.94 in Trench 2, whereas in the north-east the gravel fell from 2.02m OD in Trench 10 to -1.43m in Trench 9. This reflected the results of the deposit model by Quest (Young & Batchelor, 2017), which shows a high gravel terrace, running east-west, across the northern bounds of the site, falling off sharply to the south.

8.2 Phase 2: Prehistoric

8.2.1 This phase represented the earliest human activity within the area of the site recorded during the evaluation. The earliest evidence comes from layer [37] in Trench 3 in the form of part of a large cattle proximal femur, which is indicative of early domesticated livestock (Appendix 5). The dating for this bone comes from the C14 dating of a Bog Oak [36], to the late Mesolithic/early Neolithic period (5772± 24BP; SUERC-76801). The oak was lying across the top of layer [37], and suggests human activity within the general study area during this period'

8.2.2 The peat bed [55], [60], [63], [78] is indicative of a transition towards semi-terrestrial (marshy) conditions, supporting the growth of sedge fen/reed swamp and/or woodland communities across the floodplain. On the basis that 1m of peat may represent up to 1000 years of peat accumulation, this layer may have been accumulating in areas of the site for 3000 - 4000 years.

8.2.3 Sealing the peat was a band of alluvium. As a waterlain deposit this indicated a rise in the water table towards the end of the prehistoric period, after the period of semi-terrestrial conditions as evidenced by the peat beds.

8.3 Phase 3: Late Iron Age

8.3.1 This phase is represented by a group of pits and postholes cut into the top of the alluvium in Trench 3, probably reflecting a period of a drop in the water table, thus allowing human access and utilisation of the marsh edge again. Thin bands of peat in Trenches 7, [51] and 9, [39], also allude to a drop in the water table at this time, allowing vegetation to grow along the marsh edge.

8.3.2 Due to the keyhole nature of the archaeological evaluation no alignments or structures could be ascertained from the postholes. It could be that these features derive from everyday use of the land, e.g. storage pits and granaries, for farming practices. However other functions are a possibility. The shape of the postholes and the lack of finds suggested that they were used to support large wooden timbers. The base of the postholes rested directly on the top of

the peat, suggesting they were deliberately dug to this depth and would have been unlikely to have been dry inside.

8.3.3 The pits and ditches were sealed by another layer of alluvium, indicating an end to the drier period and another rise in the water table. There was no clear differentiation between where the earlier alluvium stopped and the later alluvium started, other than the presence of the cut features.

8.4 Phase 4: Medieval

8.4.1 Two postholes, a pit and a ditch represented Phase 4 – the medieval period. It is probable that ditch [32] indicated evidence of land division, a possible field boundary relating to farming practises on the periphery of medieval Dagenham.

8.4.2 It is possible that the postholes, [28] and [34] are the remnants of fencing, and also reflect land division. However, this cannot be ascertained by the evaluation, in fact due to the lack of any dating evidence from the fills, these postholes have been phased to the medieval period because of their proximity to the other features of this date, on the higher drier ground.

8.4.3 Pit [30] contained a substantial amount of charcoal flecks, but there was no sign of in situ burning, indicating that the fill was probably the result of rake out from elsewhere, and deposited within a rubbish pit. That the feature is a rubbish pit is also corroborated by the presence of broken pottery and animal bone within its fill.

8.5 Phase 5: Post Medieval

8.5.1 This phase was represented by layers of subsoil within Trench 10, indicative of the agricultural activities that are known to have taken place within the area throughout this period until the construction of buildings and yards on the site, as shown on 1939 Ordnance Survey map.

8.5.2 It is probable that ploughing of the site during this period partially horizontally truncated the natural deposits and archaeological horizon, explaining why the features were all so shallow.

8.6 Phase 6: Modern

8.6.1 The large concrete tunnels recorded to the north of the site [82], [83], [84], [85] and [86], correspond with the Plan of Briggs Motor Bodies Works, 1940 which identifies them as air-raid shelters, constructed for the use of the factory workers during WWII. The shelters have been identified as Trench-Type Industrial Shelters, constructed by Bison Concrete Ltd, (G. Thompson, pers comm.).

9 RESEARCH QUESTIONS

9.1 Primary Objectives

9.1.1 The Written Scheme of Investigation (Hawkins, 2017) prepared prior to the commencement of archaeological work at the Former Ford Stamping Plant, highlighted a set of specific objectives to be addressed by the investigation:

- To examine the top of the gravel, where possible, for the presence or absence of prehistoric remains;

9.1.2 The natural gravels were exposed in Trenches 1, 9, 10 11 and 12. They fell from a height of 2.90m OD in Trench 12, to -1.94 in Trench 2, whereas in the northeast they fell from 2.02m OD in Trench 10 to -1.43m in Trench 9, reflecting the deposit model by Quest. No directly dated prehistoric features were noted cut directly into the gravel terrace.

9.1.3 The earliest indicator of human occupation on the site was the large cattle proximal femur from layer [37] in Trench 3, indicative of early domesticated livestock and therefore agriculture.

9.1.4 The next phase of human activity observed on the site was the pits and postholes that cut alluvial layer [21] in Trench 3. No dating evidence was recovered from the features, however the alluvial layer that seals them, [20] is thought to be of early Roman origin in date, and they have tentatively been placed in the Late Iron Age.

9.1.5 Although no alignments or structures could be ascertained from the postholes they allude to a period of a drop in the water table, thus allowing human access and utilisation of the marsh edge, which is supported by the bands of peat, [51] in Trench 7 and [39] in Trench 9.

- To establish the presence or absence of palaeo-environmental remains and, if present, assess their potential to contain yield information about the former environment of the site and / or human activity in the vicinity;

9.1.6 Palaeo-environmental remains are extremely well preserved across the site within the thick peat bed. This includes naturally fallen oak and yew trees, hazel nuts and as yet un-identified seeds. C14 dating of an oak tree in Trench 3 gave a date of the late Mesolithic/early Neolithic period at 5772 ± 24BP (SUERC-76801), and another group of trees in Trench 8 is also likely to date to the early prehistoric period, placing them within the ancient wild woodland of Britain.

- To establish the presence or absence of archaeological remains of any other period, and allow the design of a suitable mitigation strategy if appropriate;

9.1.7 The medieval features recorded in Trench 10, a pit, a ditch and two postholes probably reflect land division and farming on the periphery of medieval Dagenham.

9.1.8 The concrete tunnels located along the northern boundary of the site have been identified as a series of air-raid shelters providing refuge for the factory workers during WWII.

- To establish the extent of all past post-depositional impacts on the archaeological resource.

9.1.9 All the trenches excavated on the site showed extensive past post-depositional impacts on the archaeological resource, as to be expected with the construction of the stamping works. Frequent concrete piles penetrated beyond 5m in depth, and large concrete machine bases over 2m thick were common place. Very thick concrete slabs and underground tanks were also present on the site.

9.1.10 Trench 5 had to be abandoned after trying four different locations due to the presence of large subterranean concrete tanks, extensive foundations and machine bases.

9.1.11 Without the full removal of the existing concrete slab it is impossible to tell the full extent to which these truncations affect the site, as they are not shown on historic maps and plans. It is possible that a large amount of the archaeological horizon has been truncated to a depth of c.2m, however any features at a greater depth should have had a much better chance at preservation.

10 CONCLUSIONS

10.1 The results of the evaluation show that the construction of the Ford Stamping Works across the area of the site during the 20th Century has had a detrimental effect on the archaeological horizon, causing partial horizontal truncation.

10.2 The evidence recovered from the evaluation showed good preservation of the ancient environmental record within the peat beds across the site. It also showed that prehistoric archaeology was present towards the north-west of the site, in the form of pits and postholes. Surprisingly, the higher parts of the gravel terrace did not contain any evidence for prehistoric activity, as was originally expected, based on the results of nearby investigations.

10.3 It seems probable that throughout the medieval and post-medieval periods the site lay outside the focus of urbanisation and was utilised for horticultural/agricultural purposes, as evidenced by the features on located on the gravel bank in the north-east of the study area.

10.4 With the coming of WWII, air-raid shelters were constructed along the northern boundary of the site for the protection of the workers at the Stamping Plant.

11 ACKNOWLEDGEMENTS

11.1 Pre-Construct Archaeology Limited would like to thank James Archer of CgMs Heritage for commissioning the archaeological work and to T.E. Scudder and the Carey Group, the primary contractors on site who facilitated the opening up of the trenches.

11.2 Thanks also to Adam Single of the Greater London Archaeological Advisory Service (GLAAS) at Historic England.

11.3 The author would also like to thank: Helen Hawkins for project managing and editing this report; Mick Steel for the illustrations, Chris Jarrett for the pottery and fired clay assessments; Kevin Rielly for the animal bone assessment; Damian Goodburn for his assistance and expertise with the timber; Chloe Sinclair, Dan Britton and Poppy Alexander for their work on site.

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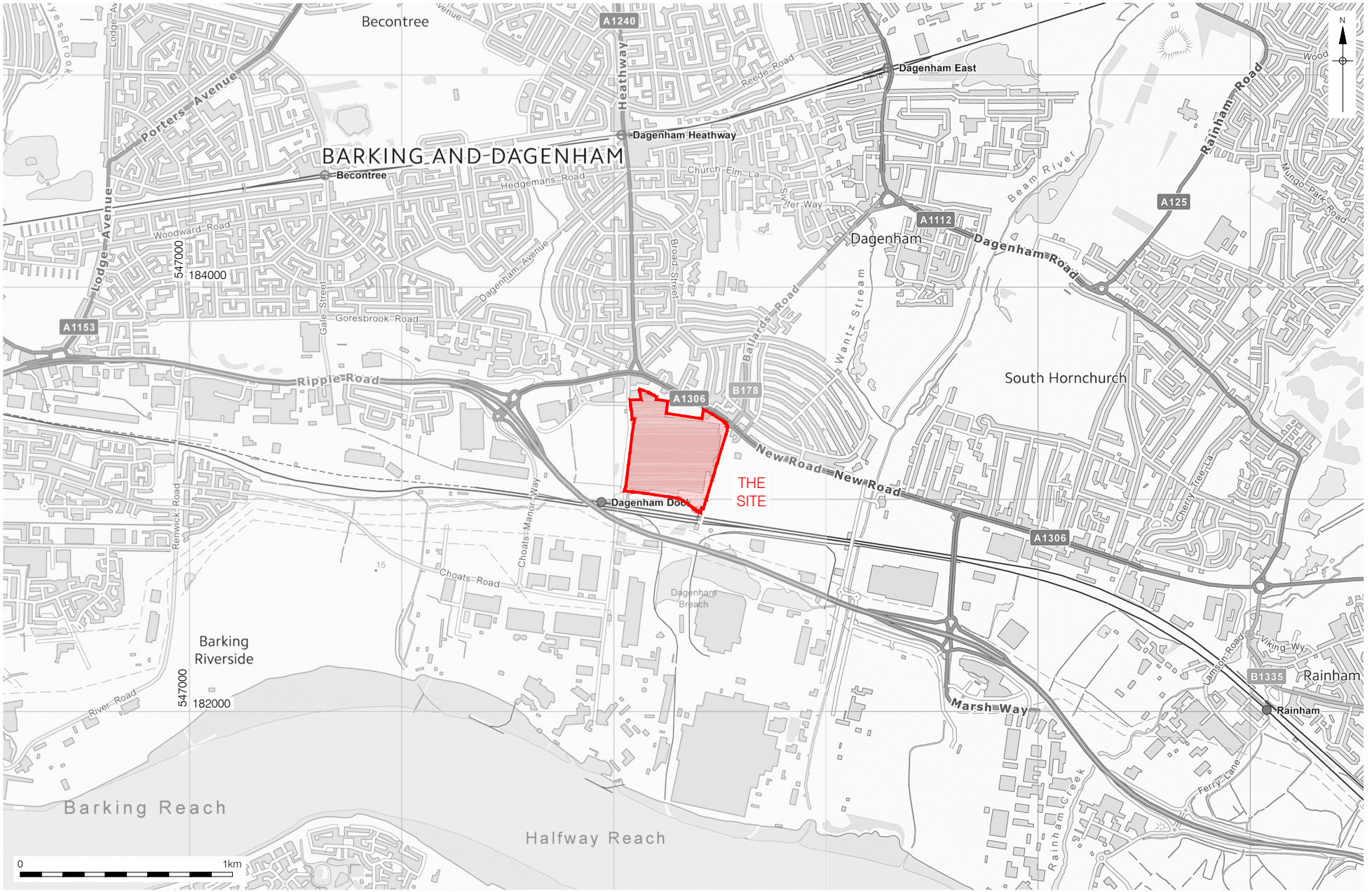


06/02/18 MS

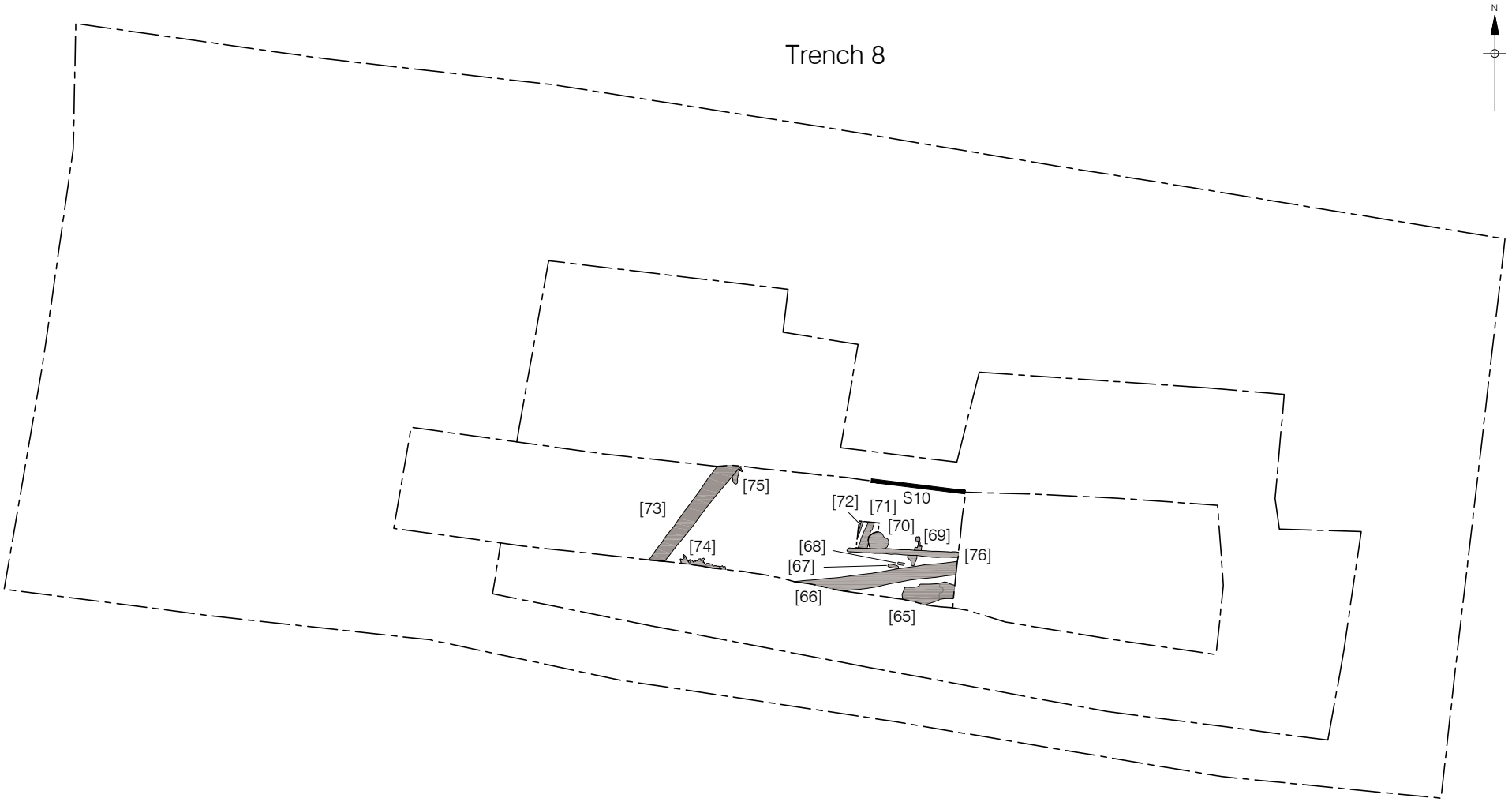
Figure 1
Site Location
1:25,000 at A4

06/02/18 MS

Figure 2
Trench Location
1:2,000 at A4

06/02/18 MS

Figure 3
Trench 3
1:250 at A4

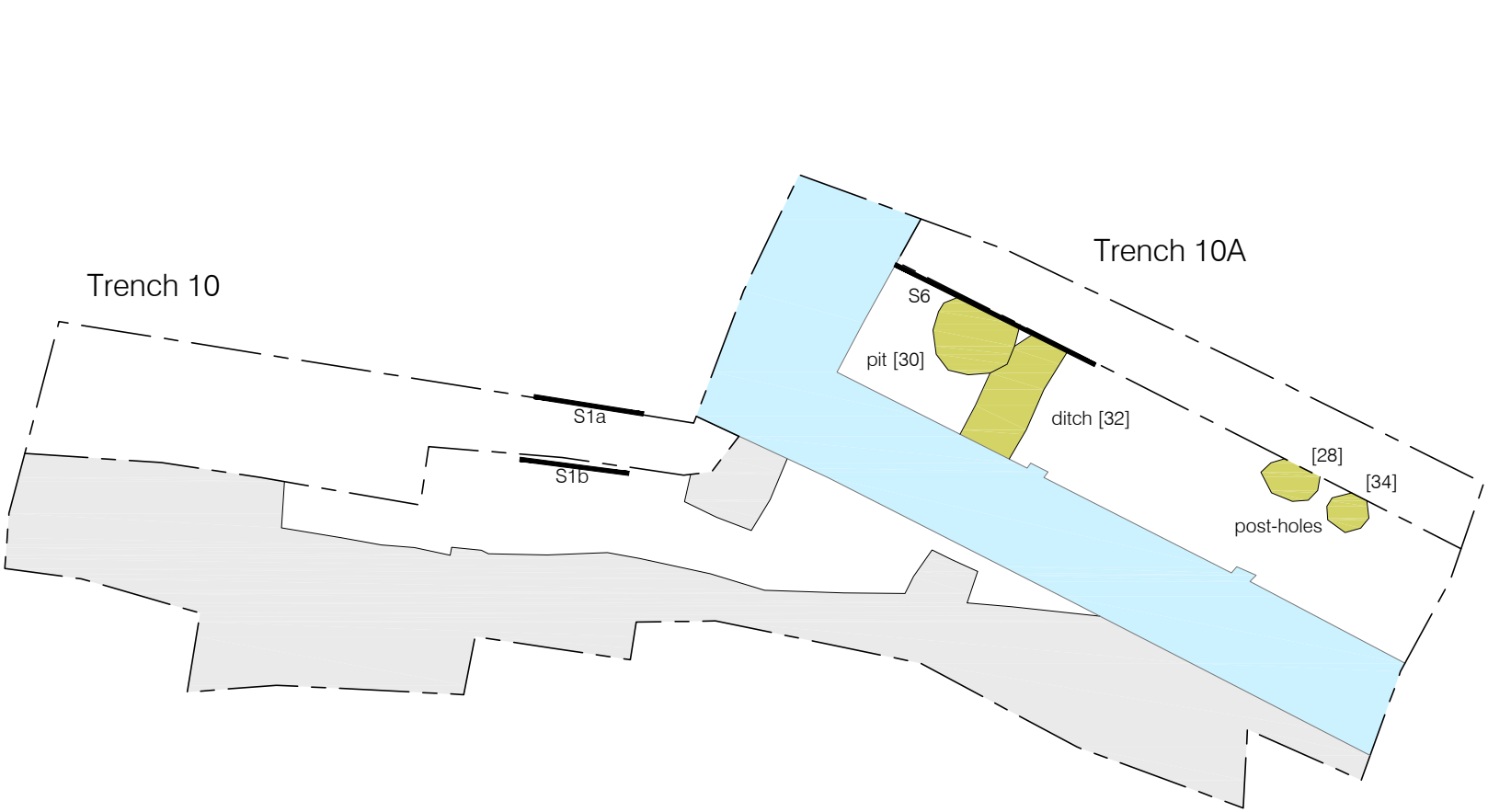


Timber

0 5m

06/02/02 MS

Figure 4
Trench 8
1:125 at A4

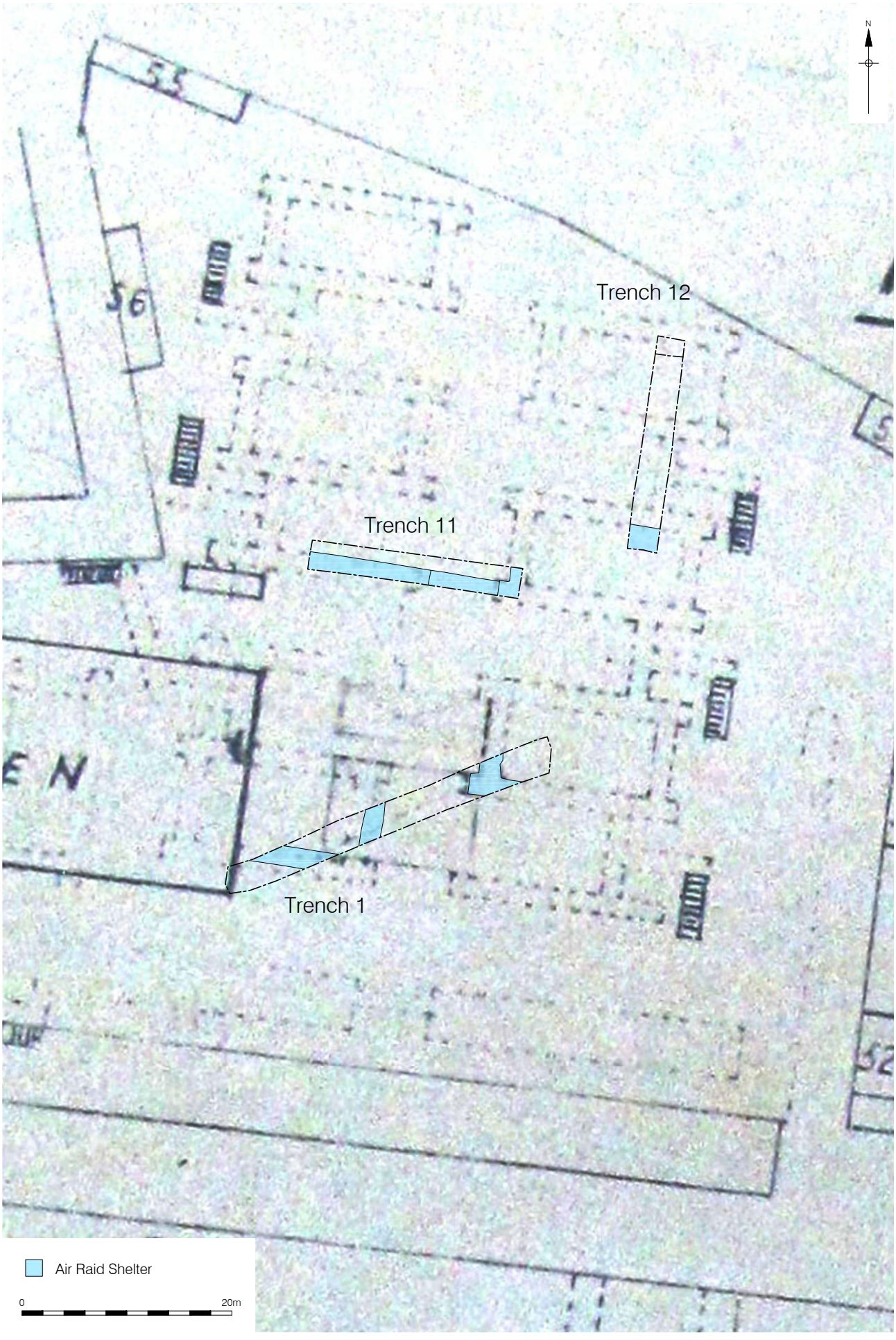


Archaeological cut feature
Modern
Air Raid Shelter

0 5m

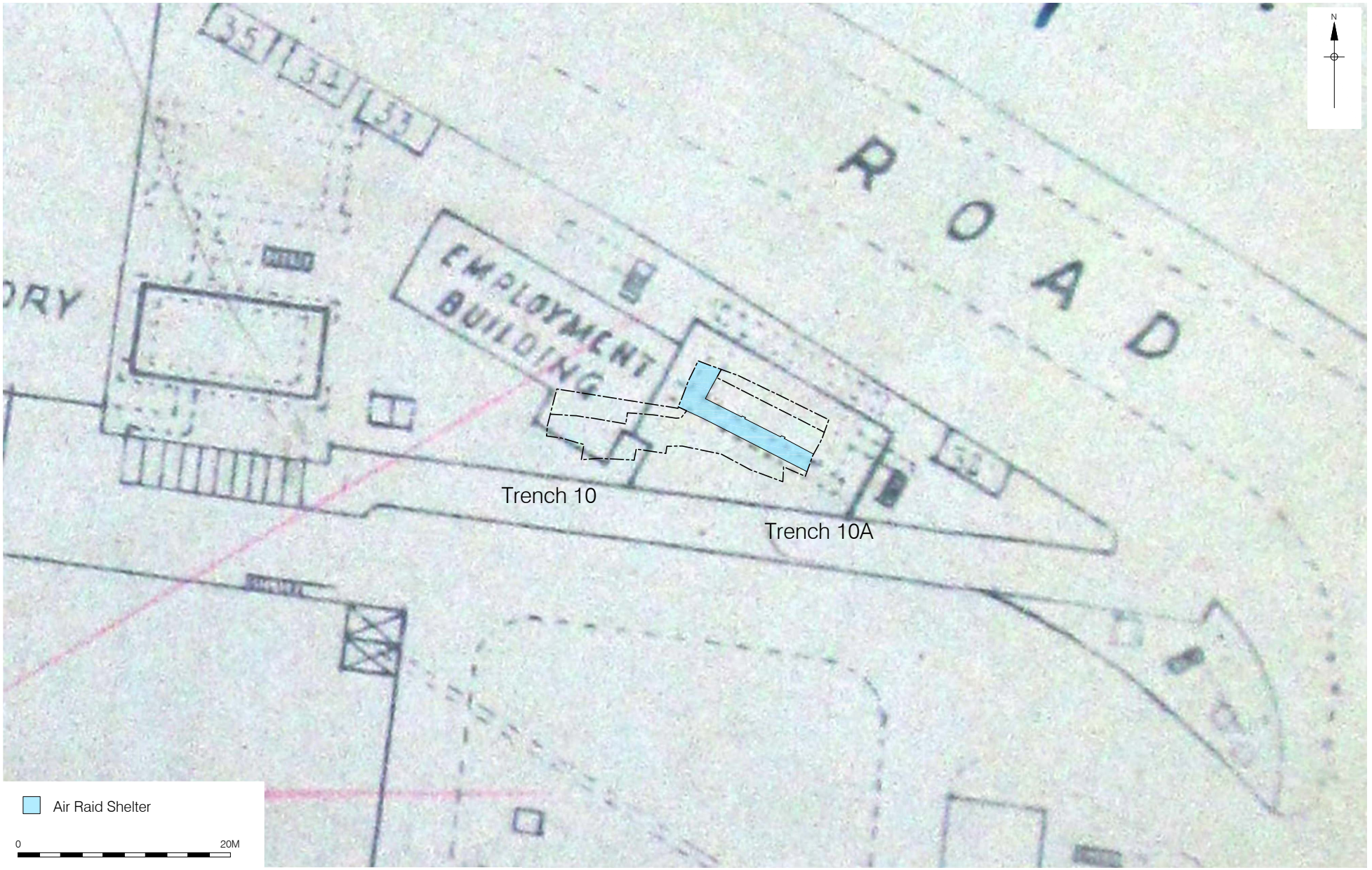
06/02/18 MS

Figure 5
Trench 10
1:125 at A4



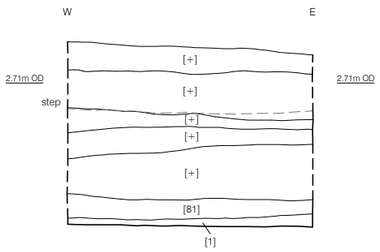
Overlain on A.R.P Office plan of Briggs Motor Bodies Ltd, 1944
06/02/18 MS

Figure 6
Air Raid Shelter, Trenches 1, 11 & 12
1:500 at A4

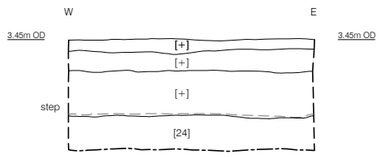


Overlain on A.R.P Office plan of Briggs Motor Bodies Ltd, 1944
06/02/18 MS

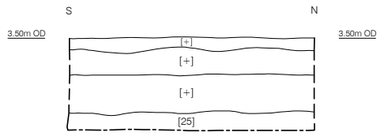
Figure 7
Air Raid Shelter, Trench 10
1:500 at A4



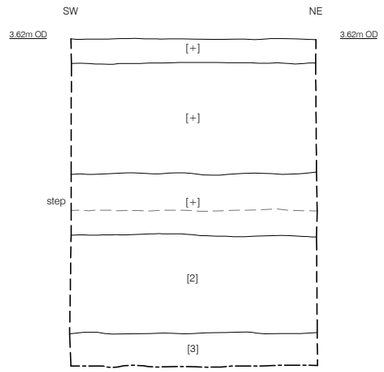
Section 1 (a & b)
South Facing
Trench 10



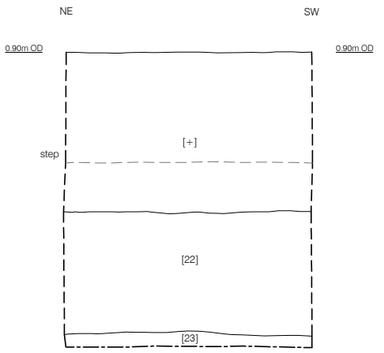
Section 4
South Facing
Trench 11



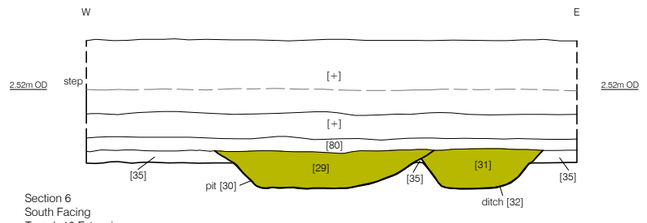
Section 5
East Facing
Trench 12



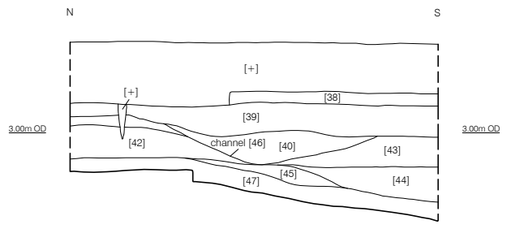
Section 2
Southeast Facing
Trench 1



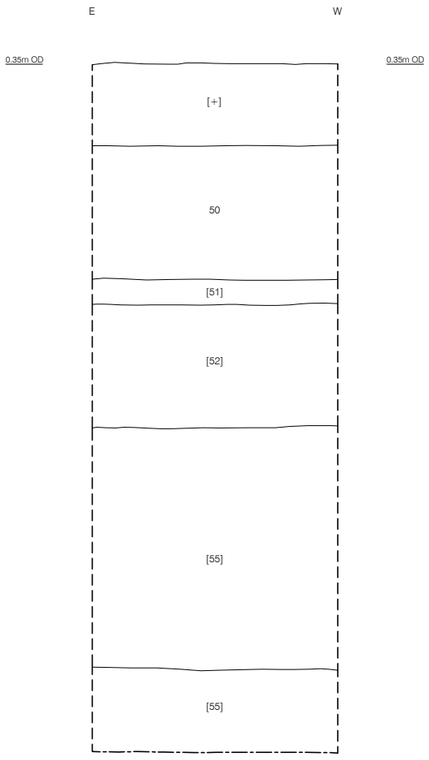
Section 3
Northwest Facing
Trench 2



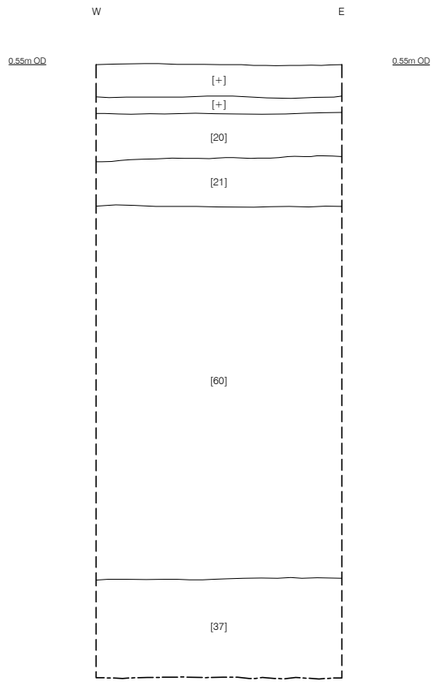
Section 6
South Facing
Trench 10 Extension



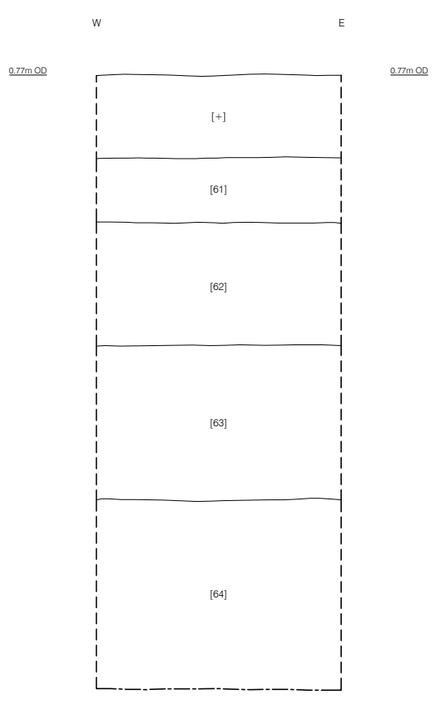
Section 7
West Facing
Trench 9



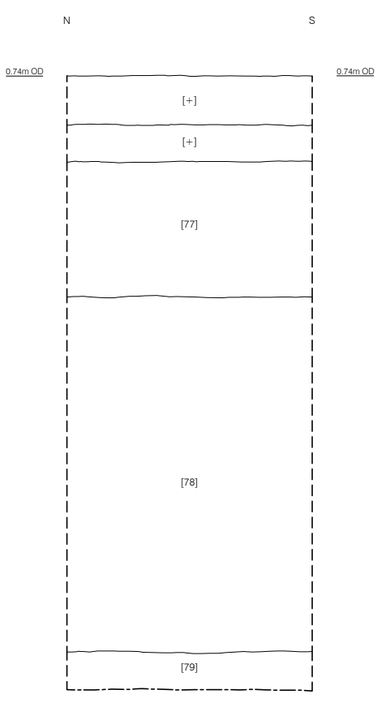
Section 8
North Facing
Trench 7



Section 9
South Facing
Trench 3



Section 10
South Facing
Trench 8



Section 11
West Facing
Trench 4

Archaeological cut feature

0 2m

06/02/18 MS

Figure 08
Sections 1 - 11
1:50 at A3

13 PLATES:

Plate 1: Timber [36], Trench 3, Looking SE

Plate 2: Timbers, Trench 8, Looking South

Plate 3: Timber [73], Trench 8, Looking West

Plate 4: Pits [11] & [17] & Posthole [19], Trench 3, Looking South-West

Plate 5: Postholes [5], [7] & [9], Trench 3, Looking South-East

Plate 6: Pit [30] & Ditch [32], Trench 10, Looking North-East

Plate 7: Postholes [28] & [34], Trench 10, Looking North-East

Plate 8: Air-Raid Shelter [85], Trench 11, Looking East

Plate 9: Air-Raid Shelter [84], Trench 10, Looking South-East

APPENDIX 1: CONTEXT INDEX

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
1	10		1	1.65			Layer	Natural Gravel	1	NAT
2							Void	Alluvium	2	PH
3			2	1.24	1.22	0.25	Layer	Upper Alluvium	2	PH
4	3	gps		-0.15		0.52	Fill	Fill of posthole [5]	3	LIA
5	3	gps		-0.15	-0.75	0.52	Cut	Posthole cut	3	LIA
6	3	gps		-0.14		0.57	Fill	Fill of posthole [7]	3	LIA
7	3	gps		-0.14	-0.7	0.57	Cut	Posthole cut	3	LIA
8	3	gps		-0.12		0.43	Fill	Fill of posthole [8]	3	LIA
9	3	gps		-0.12	-0.61	0.43	Cut	Posthole cut	3	LIA
10	3	gps		-0.34		0.32	Fill	Fill of Pit [11]	3	LIA
11	3	gps		-0.34	-0.8	0.32	Cut	Pit cut	3	LIA
12	3	gps		-0.17		0.46	Fill	Fill of posthole [13]	3	LIA
13	3	gps		-0.17	-0.69	0.46	Cut	Pothole cut	3	LIA
14	3	gps		-0.19		0.33	Fill	Fill of posthole [15]	3	LIA
15	3	gps		-0.19	-0.5	0.33	Cut	Posthole cut	3	LIA
16	3	gps		-0.36		0.44	Fill	Fill of pit [17]	3	LIA
17	3			-0.36	-0.5	0.44	Cut	Pit cut	3	LIA
18	3	gps		-0.38			Fill	Fill of posthole [19]	3	LIA

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
19	3	gps		-0.38			Cut	Posthole cut	3	LIA
20	3	gps	9	-0.2	-0.24	0.36	Layer	Upper alluvium	3	LIA
21	3	gps	9	-0.18	-0.22	0.4	Layer	Lower alluvium	2	PH
22	2	gps	3	-0.4			Layer	Alluvium	2	PH
23	2	gps	3	-0.69	-1.94		Layer	Natural gravels	1	NAT
24	11	gps	4	2.47	2.15		Layer	Natural sandy gravel	1	NAT
25	12	gps	5	2.9	2.64		Layer	Natural sandy gravel	1	NAT
26	10			1.78		0.3	Fill	Post-pipe in cut [28]	4	M
27	10			1.78			Fill	Post packing in cut [28]	4	M
28	10	gps		1.78	1.43	0.35	Cut	Posthole cut	4	M
29	10		6	2.02		0.2	Fill	Fill of pit [30]	4	M
30	10	gps	6	2.02	1.72	0.2	Cut	Pit cut	4	M
31	10		6	2.02		0.2	Fill	Fill of ditch [32]	4	M
32	10	gps	6	2.02	1.7	0.2	Cut	Ditch cut	4	M
33	10			1.78		0.21	Fill	Fill of posthole [34]	4	M
34	10	gps		1.78	1.57	0.21	Cut	Posthole cut	4	M

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
35	10	gps	6	2.02	1.78		Layer	Natural gravels	1	NAT
36	3	36		-2.9			Timber	Ancient oak tree, natural	2	PH
37	3	gps	9	-3.64		0.8	Layer	Alluvial clayey sand	2	PH
38	9		7	0.51	0.43	0.1	Layer	Horizontally truncated alluvium.	3	LIA
39	9		7	0.43	0.13	0.28	Layer	Peat.	2	PH
40	9		7	0.18		0.28	Layer	Fill of channel [46]	2	PH
41	9		7	0.3		0.1	Layer	Alluvium	2	PH
42	9		7	0.23	0.09	0.22	Layer	Alluvium	2	PH
43	9		7	0.14	0.11	0.25	Layer	Alluvium	2	PH
44	9		7	-0.13	-0.31	0.3	Layer	Alluvium	2	PH
45	9		7	-0.04		0.15	Layer	Alluvial clayey sand	2	PH
46	9		7	0.25	-0.08	0.28	Cut	'Cut' of channel	2	PH
47	7	gps	7	-0.03	-1.43		Layer	Natural gravels	1	NAT
48	7			-1.68			Timber	Possibly trimmed wood	2	PH
49							Void			

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
50	7		8	-0.6	-1.55	0.8	Layer	Alluvium	2	PH
51	7		8	-1.4	-1.7	0.2	Layer	Peat layer	2	PH
52	7		8	-1.6	-2	0.4	Layer	Alluvium	2	PH
53							Void	Peat layer		
54							Void	Alluvium		
55	7		8	-2.6		2.8	Layer	Peat layer	2	PH
56	7			-5.4			Timber	Possible worked wood	2	PH
57	7			-5.4			Timber	Possible worked wood	2	PH
58	7			-5.4			Timber	Possible worked wood	2	PH
59	7			-5.4			Timber	Possible worked wood	2	PH
60	3		9	-0.6		3.04	Layer	Peat layer	2	PH
61	8		10	0.08		0.52	Layer	Alluvium	2	PH
62	8		10	-0.44		0.8	Layer	Poorly developed peat	2	PH
63	8		10	-1.44		1.25	Layer	Peat layer	2	PH
64	8		10	-2.68		1.55	Layer	Alluvial clayey sand	2	PH
65	8	65		-1.6			Timber	Natural wood	2	PH
66	8	65		-1.65	-1.76	0.28	Timber	Natural wood	2	PH
67	8	65		-1.81			Timber	Natural wood	2	PH
68	8	65		-1.81			Timber	Natural wood	2	PH

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
69	8	65		-1.81			Timber	Natural wood	2	PH
70	8	65		-1.77			Timber	Tree stump	2	PH
71	8	65		-1.94			Timber	Natural wood	2	PH
72	8	65		-1.94			Timber	Natural wood	2	PH
73	8	65		-1.3	-1.51		Timber	Large ancient tree (Oak)	2	PH
74	8	65		-1.65			Timber	Natural wood, (Yew).	2	PH
75	8	65		-1.33			Timber	Natural Yew	2	PH
76	8	65		-1.73	-1.76		Timber	Natural Oak	2	PH
77	4		11	0.04		1.1	Layer	Alluvium	2	PH
78	4		11	-1.06		3.4	Layer	Peat Layer	2	PH
79	4		11	-3.96				Naturally deposited alluvial deposit.	2	PH
80	10			2.1		0.1	Layer	Post-med plough soil	5	PM
81	10		1	1.81	1.75		Layer	Post-med plough soil.	5	PM
82	1						Masonry	WW2 Air raid shelter	6	MOD
83	1						Masonry	WW2 Air raid shelter	6	MOD
84	10						Masonry	WW2 Air raid shelter	6	MOD
85	11						Masonry	WW2 Air raid shelter	6	MOD

Context No	Trench	Plan	Section	CTX Levels_High	CTX Levels_Low	Depth	Type	Interpretation	Phase	Period
86	12						Masonry	WW2 Air raid shelter	6	MOD

APPENDIX 2: PHASED HARRIS MATRIX

APPENDIX 3: POTTERY REPORT

Chris Jarrett

INTRODUCTION

The archaeological work produced a total of 19 sherds of pottery, representing nine estimated number of vessels (ENV) and weighing 673g, of which none are unstratified. The pottery dates solely to the early medieval period and was found in two contexts. The assemblage consists of solely sherd material, although diagnostic parts are represented and most of the forms could be identified. The material is in a very good condition, indicating that it was deposited soon after breakage or discard and under secondary conditions. The pottery was quantified by sherd count, estimated number of vessels (ENV) and weight and was classified according to the Museum of London Archaeology (MOLA 2014). The assemblage is discussed by pottery types and its distribution.

POTTERY TYPES

The range of pottery types and their quantification recorded are shown in Table 1, which also shows the pottery forms found in each type.

Pottery type	Date range	Code	S	%	ENV	%	Wt (g)	%	Forms
Coarse London-type ware	1080-1200	LCOAR	2	10.5	1	11.1	171	25.4	Early rounded jug
Essex early medieval coarse sand-and-shell-tempered ware	1000-1225	EMSSX	3	15.8	1	11.1	201	29.9	Bowl or dish
Essex fine sandy ware	1100-1300	EXFS	2	10.5	1	11.1	30	4.5	Cooking pot/jar
London-type ware	1080-1350	LOND	2	10.5	2	22.2	24	3.6	Jug, unidentified
South Essex shell-tempered ware	1100-1300	SEMS	10	52.6	4	44.4	247	36.7	Cooking pot/rounded jar, unidentified

Table 1. KNV17: medieval pottery quantified by sherd count (SC), estimated number of vessels (ENV), weight and the forms that occur in the different types

The main source of the pottery is from Essex (78.9% SC/66.7% ENV/71.0% weight) and consists of shell tempered wares, handmade Essex early medieval coarse sand-and-shell-tempered ware (EMSSX), besides wheel-thrown south Essex shell-tempered ware (SEMS) and a sand-tempered ware: Essex fine sandy ware (EXFS) (Howell et al 2011, 102–5, 109–112). The forms identifiable in these wares consist of mostly jars or sooted cooking posts (see Table 1) and a SEMS example found in context [29] is decorated with applied thumbed strips surviving as horizontal (on the shoulder) and diagonal (on the body) examples. Additionally, a SEMS cooking pot rim was found in deposit [31] and has a rolled/rounded finish that is most likely to date to the 12th century. The only other form recorded amongst the Essex wares is the flaring wall and concave base of a bowl or dish recorded in Essex early medieval coarse sand-and-shell-tempered ware (EMSHX) and this was found in context [29].

A second source of pottery is provided by the wheel-thrown and glazed London-type ware industry (Pearce et al 1985) and recorded as a total of 21.1% SC/33.3% MNV/29.0% weight. The most identifiable form recorded is the base of an early rounded glazed jug, made in coarse London-type ware and the form is dated to the mid-late 12th century (Pearce et al 1985, 127): the vessel was recovered from context [29]. Two sherds of London-type ware are recorded in context [31], one sherd survives with external glaze drips and has a firing colour datable to the 12th century and was probably derived from a jug and. The second sherd of London-type ware is unglazed and slightly worn.

Distribution

The distribution of the pottery is shown in Table 2, which shows for each context pottery occurs in, the feature it was derived from, the phase, size, number of sherds, ENV and weight, besides the date range of the latest pottery type (Context ED/LD), the pottery types present and a spot date for the deposition. Pottery was only recovered from Phase 5 and the fills of pit [30] and ditch [32].

Context	Fill of	Phase	Size	SC	ENV	Wt	Context ED	Context LD	Pottery types	Spot date
29	30	5	S	9	4	513	1100	1300	LCOAR, SEMS, EMSSX	Mid-late 12th century
31	32	5	S	10	5	160	1100	1300	SEMS, EXFS, LOND	12th century

Table 2. KNV17: distribution of the pottery. Sherd count: SC, estimated number of vessels: (ENV), weight in grams: (Wt (g)

Significance and potential of the assemblage and recommendations for further work

The assemblage is significant for demonstrating 12th century activity on the study area and the finds were recovered from a pit and a ditch that are broadly contemporaneous. The early medieval assemblage compares well with the ceramic profile for north-east London and particularly that from Barking, located four miles to the west of the study area and from such sites as Axe Street (Carew *et al* 2009), London Road/North Street, (Jarrett 2014) and Barking Abbey (e.g. Jennings n.d.). The potential of the pottery is to date the features it was found in and infer upon the early medieval activities occurring on the study area. There are no recommendations for further work on the assemblage at this stage, although should further archaeological work be undertaken on the study area then the importance of the material should be reviewed if new finds are recovered.

Reference

Carew. T., Eddisford, D., Pearce, J. and Vince, A. *2009 '*Axe Street, Barking, and the supply of medieval Mill Green-type ware to London and south Essex', *London Archaeologis*t 12:5, 138-42.

Howell, I., Swift, D., Watson, B., Cotton, J. and Greenwood, P. 2011*. Archaeological landscapes of east London: six sites excavated in advance of gravel quarrying in the London Borough of Havering*. MOLA Monograph Series 54.

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Jennings, S. n.d. Pottery from Barking Abbey. Unpublished report.

Pearce, J., Vince, A. G. and Jenner, A. 1985. *A dated type-series of London medieval pottery Part Two: London-type ware*. London and Middlesex Archaeology Society, Special Paper No. 6.

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APPENDIX 4: BURNT CLAY REPORT

Chris Jarrett

A total of seven fragments (50g) of fired clay was recovered from a single context: fill [29], pit [30], Phase 5. The material consists of low-fired, oxidised (red: Munsell colour 10R 4.8) brickearth containing abundant, fine rose and clear coloured rounded quartzes, sparse iron ores and organic fragments. The fired clay fragments have a slightly marbled appearance. The material is amorphous and the impressions of wattle or other constructional elements are absent and were therefore unlikely to have been derived from a building. However, the interpretation of the forma and use of this material is difficult.

The fired clay is not significant and has little potential to add to the information on the study area. It is recommended that no further work is undertaken at this stage on the material, although its importance should be reviewed if new finds of burnt clay are recovered from future archaeological work on the site.

APPENDIX 5: ANIMAL BONE REPORT

Kevin Rielly

Introduction

The area under investigation lies within the footprint of the former Ford Motor Works bordered to the north by the A1306, (New Road), to the west by Chequers Lane, the east by Kent Avenue and to the south by railway lines and the A13. A series of ten evaluation trenches were excavated in the northern part of this area, these revealing evidence for prehistoric, Roman, medieval and post-medieval activity. A small number of animal bones were hand recovered, these relating to the medieval and, potentially, the prehistoric usage of this locality.

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

Description of faunal assemblage

The excavations provided a total of just two hand collected bones, these taken from (29) the fill of pit [30] (a cattle-size limb bone fragment) and (37) an alluvial layer (part of a cattle proximal femur), these within Trenches 10 and 3 respectively. The cattle femur was notably abraded, most probably water worn, while the cattle-size fragment was in good condition. Artefactual evidence found within the pit fill suggests it dates to the 12th century, while the latter may well be prehistoric. This was interpreted as a natural layer and as the lowermost levels in this trench, presumably overlying (37), appear to be prehistoric, it follows that this single bone may date to a similar period. The femur is notably large, as shown by the depth of the caput at approximately 51mm (measurement DC after von den Driesch 1976, 84-5). Note that this bone is severely abraded and it can be suggested that the actual size may have been nearer to 55/56mm. While certainly larger than most prehistoric cattle, this size does equate to wild cattle or crosses between the domestic and wild varieties. This may suggest a rather early date for this bone, however, it should be mentioned that some Roman cattle are similarly large as indeed are the cattle moving into the later post-medieval era (data taken from PCA reference collection and archives). A better assessment of the age of this bone will require the recovery of better dating material and/or a clear understanding of where this bone lies stratigraphically.

Conclusion and recommendations for further work

The recovery of just two bones from ten trenches is rather poor and as only one out of the two is in good condition, it can be supposed that any further excavation will not produce anything more than a small to moderately sized collection. This being said, it would of course be of interest to look at even a small quantity of bones. In addition it was postulated that the large cattle femur from the alluvial deposit could be an aurochs, thus suggesting some early prehistoric activity.

Thus, despite the minimal quantity of bones, there is some potential regarding evidence pertaining to animal usage in this general area, here dependant on the scale of any further excavation at this site. It should also be mentioned that the good condition of 50% of the bones is sufficient to suggest that such excavation should include a sieving strategy, aiming principally to recover the smaller species, as fish, birds and small mammals.

References

Driesch, A, von den, 1976 *A guide to the measurement of animal bones from archaeological sites*, Peabody Mus Bull 1, Cambridge, Massachusetts

APPENDIX 6: SUERC-76801 RADIOCARBON DATING CERTIFICATE

Scottish Universities Environmental Research Centre
Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor F M Stuart Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE
05 January 2018

Laboratory Code	SUERC-76801 (GU46407)
Submitter	Lucy Whittingham Pre-Construct Archaeology Ltd Unit 54 Brockley Cross Business Centre 96 Endwell Road Brockley, London SE4 2PD
Site Reference	Ford Stamping Plant (KNV17)
Context Reference	36
Sample Reference	3
Material	Wood
$\delta^{13}C$ relative to VPDB	-24.9 ‰
Radiocarbon Age BP	5722 ± 24

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

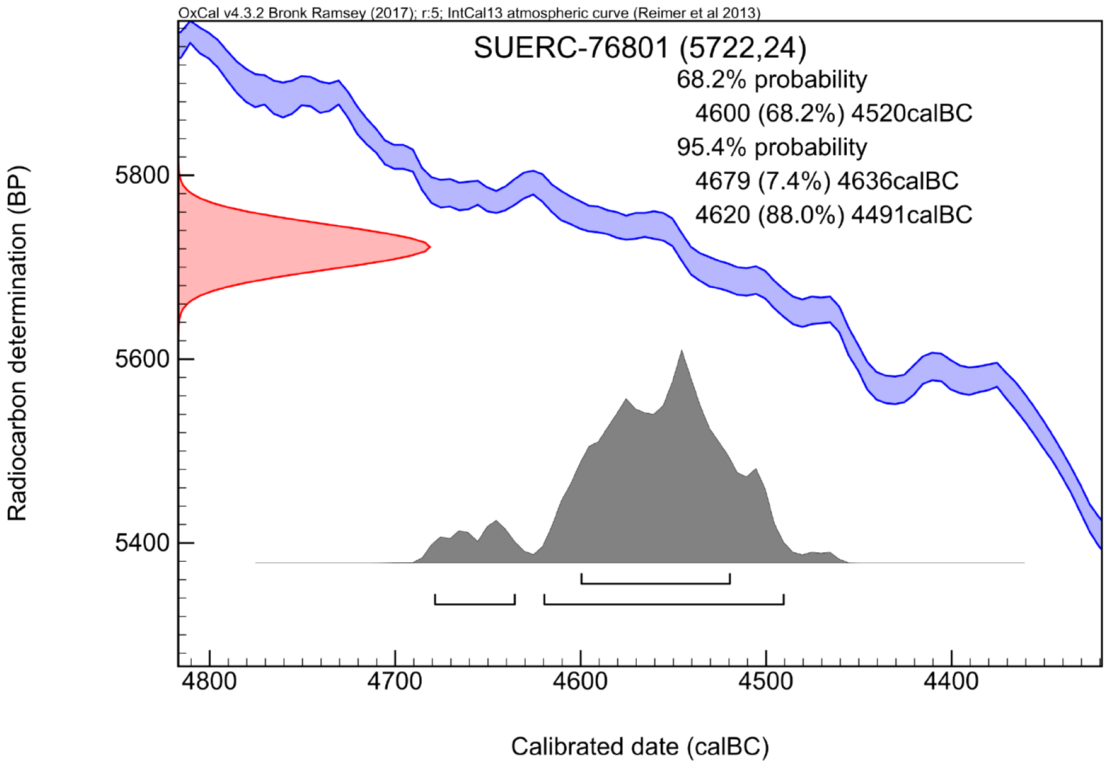
Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon 58(1) pp.9-23.*

For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by : P. Naysmith

Checked and signed off by : B Tripney

13.4



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon 51(1) pp.337-60*
† Reimer et al. (2013) *Radiocarbon 55(4) pp.1869-87*

APPENDIX 7: OASIS FORM

OASIS ID: preconst1-307442

Project details	
Project name	The Former Ford Stamping Works, Kent Avenue, Dagenham, London Borough of Barking and Dagenham An Archaeological Evaluation
Short description of the project	An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited between 30th October 2017 and 16th January 2018 on land at the Former Ford Stamping Plant, Kent Avenue, in the London Borough of Barking and Dagenham. A total of ten archaeological evaluation trenches were excavated, positioned so as to maximise coverage within the area. The evaluation revealed the presence of well developed prehistoric peat beds, prehistoric and medieval pits and post-holes and air raid shelters that dated to the Second World War.
Project dates	Start: 30-10-2017 End: 16-01-2018
Previous/future work	No / Yes
Any associated project reference codes	KNV17 - Sitecode
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 3 - Despoiled land (contaminated derelict and ?brownfield? sites)
Monument type	POSTHOLES Late Iron Age
Monument type	DITCH Medieval
Monument type	PITS Late Iron Age
Monument type	PIT Medieval
Monument type	POSTHOLES Medieval

Monument type	AIR-RAID SHELTERS Modern
Significant Finds	ANIMAL BONE Late Mesolithic
Significant Finds	POTTERY Medieval
Significant Finds	ANIMAL BONE Medieval
Methods & techniques	"Documentary Search","Environmental Sampling","Sample Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location	
Country	England
Site location	GREATER LONDON BARKING AND DAGENHAM DAGENHAM Kent Avenue, Dagenham
Postcode	RM96SA
Study area	17.9 Hectares
Site coordinates	TQ 49280 83203 51.527473061124 0.152230434861 51 31 38 N 000 09 08 E Point
Height OD / Depth	Min: -1.94m Max: 2.9m

Project creators	
Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	CgMs Consulting

Project design originator	James Archer
Project director/manager	Helen Hawkins
Project supervisor	Guy Seddon
Type of sponsor/funding body	Consultancy
Name of sponsor/funding body	CgMs Consulting

Project archives	
Physical Archive recipient	LAARC
Physical Contents	"Animal Bones","Ceramics","Wood"
Digital Archive recipient	LAARC
Digital Contents	"Animal Bones","Ceramics","Stratigraphic","Survey","Wood"
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	LAARC
Paper Contents	"Animal Bones","Ceramics","Stratigraphic","Survey","Wood"
Paper Media available	"Context sheet","Diary","Drawing","Map","Matrices","Photograph","Plan","Report","Section","Survey ","Unpublished Text"

Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	The Former Ford Stamping Plant, Kent Avenue, Dagenham,
Author(s)/Editor(s)	Seddon, G.
Date	2018
Issuer or publisher	Pre-Construct Archaeology Ltd
Place of issue or publication	Brockley, London
Description	A4 client report, blue cover
Entered by	Guy Seddon (gseddon@pre-construct.com)
Entered on	29 January 2018

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