ST. GEORGE'S HOSPITAL PHASE 1, 117 SUTTONS LANE, HORNCHURCH, RM12 6RS

AN ARCHAEOLOGICAL EVALUATION

SITE CODE: SUS18

LOCAL PLANNING AUTHORITY: LONDON BOROUGH OF HAVERING

PLANNING APPLICATION NUMBER: P0321.15

SEPTEMBER 2018

PRE-CONSTRUCT ARCHAEOLOGY

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	Name	Date
Text Prepared by:	Matt Edmonds	September 2018
Graphics Prepared by:	Mick Steel	September 2018
Graphics Checked by:	Mark Roughley	September 2018
Project Manager Sign-off:	Chris Mayo	September 2018

Revision No.	Date	Checked	Approved

Pre-Construct Archaeology Limited
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

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LOCAL PLANNING AUTHORITY:	**LONDON BOROUGH OF HAVERING**
PLANNING APPLICATION NUMBER:	**P0321.15**
CENTRAL NGR:	**TQ 53955 85485**
WRITTEN AND RESEARCHED BY:	**MATT EDMONDS** **PRE-CONSTRUCT ARCHAEOLOGY LIMITED** **SEPTEMBER 2018**
PROJECT MANAGER:	**CHRIS MAYO (MCIFA)**
COMMISSIONING CLIENT: **ON BEHALF OF:**	**CGMS HERITAGE** **BELLWAY HOMES LIMITED (THAMES GATEWAY)**
CONTRACTOR:	**Pre-Construct Archaeology Limited** **Unit 54, Brockley Cross Business Centre** **96 Endwell Road** **Brockley** **London, SE4 2PD**
Tel:	**020 7732 3925**
E-mail:	**cmayo@pre-construct.com**
Website:	**www.pre-construct.com**

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CONTENTS

1 Abstract 3
2 Introduction 4
3 Planning Background 5
4 Evaluation Objectives 7
5 Geology And Topography 8
6 Archaeological And Historical Background 9
7 Archaeological Methodology 10
8 Archaeological Sequence: By Trench 12
9 Discussion And Conclusions 19
10 Bibliography 21
11 Acknowledgements 22

APPENDICES

Appendix 1: Context Index 23
Appendix 2: Site Matrix 25
Appendix 3: Oasis Report Form 26
Appendix 4: Photographs 28

ILLUSTRATIONS

Figure 1 Site Location 32
Figure 2: Trench Location Plan 33
Figure 3: Sections 34

1 ABSTRACT

1.1 This report details the results of an archaeological evaluation on the Phase 1 site of the former St George's Hospital, 117 Suttons Lane, Hornchurch, RM12 6RS in the London Borough of Havering. The work was undertaken by Pre-Construct Archaeology Limited between the 28th August and 7th September, and was commissioned by CgMs Heritage on behalf of Bellway Homes Limited (Thames Gateway).

1.2 Twenty-two trenches were excavated across the site up to 1.00m below current ground level, in order to ascertain the archaeological potential of the site and the extent of past truncation, as well as assisting in the design of further archaeological work if required.

1.3 Natural clay gravel deposits were recorded in all of the trenches excavated, at varying levels between 14.93m OD and 11.28m OD.

1.4 Deposits of subsoil were noted in all of the twenty-two trenches sealing the natural deposits. These were in turn capped by layers of top soil and in some instances made-ground and tarmac.

1.5 No archaeological deposits or features were observed during the evaluation.

2 INTRODUCTION

2.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited on land at the former St George's Hospital, 117 Suttons Lane, Hornchurch, RM12 6RS. The site comprised a roughly rectangular piece of land bordered by Suttons Lane to the west, to the south and east by the Ingrebourne River and its surrounding green corridor, and to the north by Hacton Drive. Overall the site measured c.7.58ha in extent and was centred at NGR TQ 53955 85485 (Figure 1). The site comprised of buildings of the former St George's Hospital with associated hard standing and landscaping.

2.2 The archaeological investigation was undertaken in accordance with an approved Written Scheme of Investigation prepared by CgMs Heritage (2018b) and following Historic England guidelines (GLAAS 2015).

2.3 The site is located within a locally designated Archaeology Priority Area. The planning application for the redevelopment of the site was supported by a desk-based assessment also prepared by CgMs Heritage (2018a).

2.4 Planning permission was granted by the local planning authority under application number P0321.15, and included an archaeological condition requiring in the first instance a trial trench evaluation. The evaluation herein reported was undertaken across the Phase 1 area of the redevelopment site, which comprised the eastern area.

2.5 The archaeological evaluation was supervised by Matt Edmonds and was project managed by Chris Mayo, both of Pre-Construct Archaeology Limited. The work was monitored by Adam Single of Historic England, Archaeology Advisor to the London Borough of Havering.

2.6 The completed archive comprising written, drawn, and photographic records and artefacts will be deposited with the London Archaeological Archive and Research Centre (LAARC).

2.7 The archaeological work was allocated the unique site code SUS18.

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, updated July 2018, and constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications.

3.1.2 In considering any planning application for development the local planning authority will be guided by the policy framework set by the NPPF, by current local plan policy and by other material considerations.

3.2 Regional Policy: The London Plan

3.2.1 The relevant Strategic Development Plan framework is provided by The London Plan, published July 22nd 2011 and amended in 2015. Policy 7.8 headed "Heritage Assets and Archaeology" details guidance relating to strategy and planning decisions that affect the historic environment and the outlines the formulation of Local Development Framework for each London Borough.

3.3 Local Policy: Archaeology in the London Borough of Havering

3.3.1 The relevant local policy is provided by the London Borough of Havering Core Strategy, which was adopted in 2010. It contains the following policy statement with regards to the Historic Environment:

POLICY CP2: PROTECTING AND PROMOTING OUR HISTORIC ENVIRONMENT

Havering has a rich local history.

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.

3.4 Planning Permission

3.4.1 As stated within the Written Scheme of Investigation (CgMs Heritage 2018b), "Hybrid planning permission was granted in July 2017 (Planning Ref: P0321.15) for the redevelopment of the former St George's Hospital site to provide up to 290 dwellings. Phase 1 comprises the outline part of the permission located in the eastern part of the site (see Figure 3). Access was approved but matters of layout, scale, appearance and landscaping were reserved for future consideration to be addressed through Reserved Matters submission(s). A Reserved Matters Application was made in June 2018 in relation to Phase 1 of the development for approval of

layout, scale, appearance and landscaping..

3.4.2 Furthermore, "The hybrid planning permission for the site set out the following condition (No. 20): 'No development hereby permitted other than demolition to existing ground level shall take place until a programme of archaeological evaluation has been undertaken in accordance with a scheme that shall have previously been submitted to and approved in writing by the local planning authority and a report on that evaluation has been submitted to and approved by the local planning authority. If heritage assets of archaeological interest are identified by the evaluation then no phase of the development other than demolition to existing ground level shall commence until a programme of archaeological investigation has been undertaken in accordance with a scheme that shall have previously been submitted to and approved in writing by the local planning authority. Within any individual phase of development, no dwelling shall be occupied until the site investigation and post investigation assessment for the relevant phase has been completed in accordance with the approved programme of archaeological investigation and provision for analysis, publication and dissemination of the results and archive deposition has been secured.'"

3.4.3 The evaluation referred to within condition 20 was designed within a Written Scheme of Investigation prepared by CgMs Heritage (2018b).

4 EVALUATION OBJECTIVES

4.1 The Written Scheme of Investigation CgMs Heritage (2018b) highlighted the following research objectives:

- To determine the existence or absence of any archaeological remains;
- To determine or confirm the approximate date or date range of the remains, by means of artefactual or other evidence;
- To determine or confirm the approximate extent of the remains;
- To determine the degree of complexity of the horizontal and/or vertical stratigraphy present;
- To assess the associations and implications of any remains encountered with reference to the historic landscape;
- To determine, as far as possible, the implications of the remains with reference to economy, status, utility and social activity;
- To determine or confirm the likely range, quality and quantity of the artefactual evidence present;
- To determine the potential of the site to provide palaeo-environmental and/or economic evidence and the forms in which such evidence may be present; and
- To determine the sequence and dating of Made Ground deposits to enable an understanding of the recent history of the site and its impact on archaeological remains.

5 GEOLOGY AND TOPOGRAPHY

The following geological and topographical background is summarised from the desk-based assessment (CgMs Heritage 2018a).

5.1 Geology

5.1.1 The British Geological Survey (BGS 1996) records the solid geology of the study site as London Clay Formation. Superficial deposits of Lynch Hill Gravels and Hackney Gravels are recorded across the western half of the study site, whilst Head Deposits are recorded across the eastern half. Head deposits typically comprise frost and ice damaged material which has progressed downslope through a process of solifluction.

5.2 A geotechnical investigation was carried out across the site which provided some additional information of the specific geology of the investigation area. They identified soil horizons overlaying clay gravel with clay deposits identified down the eastern side of the site (WSP 2014).

5.3 Topography

5.4 The natural topography of the study site gently slopes down from a height of c.20m above Ordnance Datum (OD) at the northern corner, to a height of c.10m OD at the eastern boundary. The site was artificially terraced during the construction of the existing hospital buildings.

5.5 The study site slopes down east towards the Ingrebourne River, which runs north-south c.150m east of the study site towards the River Thames approximately 5km to the south.

6 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

6.1 The following archaeological and historical background is summarised from the desk-based assessment (CgMs Heritage 2018a).

6.2 Whilst the study site is located within an Archaeological Priority Zone for geological deposits associated with Early Prehistoric finds, there is a lack of evidence for these periods within the study area.

6.3 There is no evidence for Neolithic settlement activity within the study area, although there is possible evidence for Bronze Age settlement activity to the east and for further activity within the wider study area.

6.4 Evidence for Iron Age settlement activity is present within the study area, comprising a roundhouse to the south west, and an occupation site to the east which may date to the Later Prehistoric or Roman periods.

6.5 There is a lack of evidence for the Saxon and Medieval periods within the study area, and it seems that the site would have most likely lain in open or pastoral land associated with the Medieval manor of Suttons to the south of the site.

6.6 Early 17th and early 18th century mapping of the lands of the Manor of Sutton show the site within open land adjacent to the River Ingrebourne to the east. Suttons Manor is depicted to the south of the site.

6.7 The site remained in open land until the construction of the original St George's Hospital in 1938-9 by Essex County Council as the 'Suttons Institution'. The institution was used by airmen from the adjacent airfield during World War Two, and later became St George's Hospital in 1948. The site was further developed with hospital buildings and associated landscaping by 1965.

6.8 A possible circular enclosure is recorded on an aerial photograph within the site, whilst a further undated ditched enclosure and undated ditch are recorded immediately to the north of the site.

6.9 Overall, the archaeological desk based assessment identified that a known non-designated heritage asset in the form of an undated ditched enclosure is present within the site, and that based on current evidence the site is considered to have a moderate archaeological potential for evidence of Iron Age activity, and a low to moderate potential for Bronze Age activity. A low archaeological potential is considered for all other periods of past human activity.

7 ARCHAEOLOGICAL METHODOLOGY

7.1 The evaluation was undertaken according to a Written Scheme of Investigation (CgMs 2018b) which was approved in advance by Adam Single, GLAAS, archaeological adviser to the London Borough of Havering. The aim of the work was to define and characterise any archaeological deposits and features, in order to allow an assessment to be made of the archaeological potential of the site, and the impact upon it from the proposed development.

7.2 The evaluation comprised of the excavation of twenty two trenches which were excavated to either the top of the first significant archaeological horizon or natural ground.

7.3 All trenches were laid out with GPS survey equipment and checked with a CAT scanner prior to excavation. Upon completion the trenches were backfilled with the upcast material and compressed by the machine until the surfaces were level.

7.4 The trench dimensions and highest and lowest levels are tabulated below:

Trench Number	Orientation	Length	Width	Depth	Highest level	Lowest level (base of trench)
1	NW-SE	20.00m	2.00m	1.00m	14.82m OD	13.82m OD
2	NW-SE	20.00m	2.00m	0.80m	15.41m OD	14.64m OD
3	NW-SE	20.00m	2.00m	0.90m	15.41m OD	14.07m OD
4	NE-SW	20.00m	2.00m	0.60m	15.33m OD	14.73m OD
5	NE-SW	20.00m	2.00m	0.60m	15.20m OD	14.60m OD
6	NE-SW	20.00m	2.00m	0.75m	14.56m OD	13.81m OD
7	NW-SE	20.00m	2.00m	0.60m	12.29m OD	11.10m OD
8	E-W	20.00m	2.00m	0.58m	14.23m OD	13.55m OD
9	NW-SE	20.00m	2.00m	0.65m	13.54m OD	12.66m OD
10	NE-SW	20.00m	2.00m	0.55m	13.42m OD	12.87m OD
11	N-S	20.00m	2.00m	0.70m	12.30m OD	10.72m OD
12	N-S	20.00m	2.00m	0.79m	14.04m OD	13.25m OD
13	E-W	20.00m	2.00m	0.49m	15.24m OD	14.40m OD
14	E-W	20.00m	2.00m	0.57m	15.22m OD	14.60m OD
15	E-W	20.00m	2.00m	0.48m	13.02m OD	12.07m OD
16	N-S	20.00m	2.00m	0.74m	12.80m OD	12.05m OD
17	E-W	20.00m	2.00m	0.60m	12.68m OD	12.08m OD
18	N-S	20.00m	2.00m	0.68m	13.69m OD	12.79m OD
19	N-S	20.00m	2.00m	0.66m	12.34m OD	11.57m OD
20	NE-SW	20.00m	2.00m	0.54m	11.78m OD	11.24m OD
21	NE-SW	20.00m	2.00m	0.61	11.66m OD	11.05m OD
22	NE-SW	20.00m	2.00m	0.63	11.93m OD	11.30m OD

7.5 All excavations were supervised by the author or an experienced archaeologist and proceeded in 100mm spits using a 360 degree tracked machine with a toothless bucket. Modern tarmac and underlying concrete were broken out with a breaker attached to the 360 digger.

7.6 Trenches were CAT scanned after each spit in order to check for buried services which were not marked on the service plan.

7.7 The trenches were cleaned by hand, recorded and photographed. Recording of the deposits was accomplished using the Single Context Recording Method on proforma context and planning sheets. Contexts were numbered and are shown in this report within squared brackets. Plans were to be drawn at a scale of 1:20 and sections at a scale of 1:10; however this was

amended on site to 1:50 and 1:20 respectively to reflect the negative nature of the trenches.

7.8 The proposal follows CIFA guidelines, and the methodologies set out in Historic England (GLAAS) Guidance Papers for standards and practices in archaeological fieldwork watching briefs and assessments and evaluation.

8 ARCHAEOLOGICAL SEQUENCE: BY TRENCH

Three phases of activity were noted during the evaluation:

- Phase 1 represented the natural geology
- Phase 2 represented the subsoil
- Phase 3 represented the modern horizon

Photographs of the trenches are provided at Appendix 4.

8.1 **Trench 1** (Figures 2 and 3)

Phase 1

8.1.1 The earliest deposit encountered in this trench was a firm mid to light brown clay [2] with occasional lenses of gravel. This layer was interpreted as a natural deposit and was encountered at 14.30m OD.

Phase 2

8.1.2 Sealing the natural deposit in this trench was a layer of dark grey clay [1]. The layer was encountered at 14.62m OD and was 0.40m thick.

Phase 3

8.1.3 Sealing the natural deposits were various layers of modern made-ground up to 0.20m thick which in turn was sealed by a thin layer of surface tarmac. The ground level on the surface of the tarmac was 14.82m OD.

8.2 **Trench 2** (Figures 2 and 3)

Phase 1

8.2.1 The earliest deposit encountered in this trench was a mixed clay and gravel layer [4] interpreted as a natural deposit. The layer was a firm dark brown clayey silt layer with bands of gravel. It was recorded at 14.56m OD.

Phase 2

8.2.2 Sealing the natural was a layer [3] of soft to firm mid grey brown sandy silt with occasional sub-angular stones which was encountered from 14.81m OD and was 0.45m thick. The layer was interpreted as being part of a sequence of subsoil.

Phase 3

8.2.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.30m in thickness and had a surface level of 15.41m OD.

8.3 **Trench 3** (Figures 2 and 3)

Phase 1

8.3.1 The earliest deposit identified in this trench was a layer of clay gravel [6] seen at the base. It was a firm dark brown clay silt with bands of sand and gravel. It was recorded from 14.67m OD and was interpreted as being part of a sequence of natural deposits.

Phase 2

8.3.2 A sandy silt layer [5] was sealing the natural deposits, it was encountered at 14.96 OD and was 0.40m thick. This layer was part of the sequence of subsoil seen across the site.

Phase 3

8.3.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was approximately 0.40m in thickness and had a surface level of 15.41m OD.

8.4 **Trench 4** (Figures 2 and 3)

Phase 1

8.4.1 A layer of clay gravel [8] was the earliest deposit encountered in this trench. It was a firm dark brown clay with bands of sand and gravel, was interpreted as being part of the natural sequence of deposits and was recorded at 14.93m OD.

Phase 2

8.4.2 Sealing the natural in this trench was a layer [7] of sandy silt with occasional lenses of gravel and flecks of coal. It was recorded at 15.13m OD and was 0.20m thick. This layer was interpreted as being part of the sequence of subsoil seen across the site.

Phase 3

8.4.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 15.33m OD.

8.5 **Trench 5** (Figures 2 and 3)

Phase 1

8.5.1 The earliest deposit encountered in this trench was [10] a firm dark brown clay with lenses of sand and gravel. This layer was interpreted as a natural deposit and was encountered at 14.60m OD.

Phase 2

8.5.2 Sealing the natural deposits was a layer of soft grey brown sandy silt [9] with occasional small sub-angular stones. It was recorded at 14.92m OD and was 0.30m thick. This layer was interpreted as being part of the sequence of subsoil.

Phase 3

8.5.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 15.20m OD.

8.6 **Trench 6** (Figures 2 and 3)

Phase 1

8.6.1 The earliest deposit encountered in this trench was mixed clay and gravel layer [12] interpreted as a natural deposit. The layer was a dark brown clay silt with bands of gravel, it was encountered at 13.94m OD.

Phase 2

8.6.2 Sealing the natural was a layer [11] of soft to firm mid grey brown sandy silt with occasional sub-angular stones which was encountered from 14.06m OD and was 0.30m thick. The layer was interpreted as being part of the sequence of subsoil.

Phase 3

8.6.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 14.56m OD.

8.7 **Trench 7** (Figures 2 and 3)

Phase 1

8.7.1 The earliest deposit identified in this trench was a layer of clay gravel [35] seen at the base of the trench. It was a firm dark brown clay with bands of sand and gravel, was recorded from 11.49m OD and was interpreted as being part of a sequence of natural deposits.

Phase 2

8.7.2 A sandy silt layer [34] sealed the natural deposits, it was encountered at 11.99 OD and was 0.40m thick. This layer was part of the sequence of subsoil seen across the site.

Phase 3

8.7.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.30m in thickness and had a surface level of 12.29m OD.

8.8 **Trench 8** (Figures 2 and 3)

Phase 1

8.8.1 A layer of clay gravel [41] was the earliest deposit encountered in this trench, it was a firm dark brown clay with bands of sand and gravel. It was interpreted as being part of the natural sequence of deposits, recorded at 13.78m OD.

Phase 2

8.8.2 Sealing the natural was a layer [40] of sandy silt with occasional lenses of gravel and small fragments of CBM. It was recorded at 13.93m OD and was 0.20m thick. This layer was interpreted as being part of the sequence of subsoil seen across the site.

Phase 3

8.8.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 14.23m OD.

8.9 **Trench 9** (Figures 2 and 3)

Phase 1

8.9.1 The earliest deposit encountered in Trench 9 was a firm dark brown clay [22] with lenses of sand and gravel. This layer was interpreted as a natural deposit and was recorded at 13.10m OD.

Phase 2

8.9.2 Sealing the natural deposits was a layer of soft grey brown sandy silt [21] with occasional small sub-angular stones. It was recorded at 13.24m OD and was 0.20m thick. This layer was interpreted as being part of the sequence of subsoil.

Phase 3

8.9.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 13.54m OD.

8.10 **Trench 10** (Figures 2 and 3)

Phase 1

8.10.1 The earliest deposit encountered in this trench was mixed clay and gravel layer [29] interpreted as a natural deposit. The layer was a dark brown clay silt with bands of gravel, it was

encountered at 13.07m OD.

Phase 2

8.10.2 Sealing the natural was a layer [28] of soft to firm mid grey brown sandy silt with occasional sub-angular stones which was encountered at 13.22m OD and was 0.30m thick. The layer was interpreted as being part of a sequence of subsoil.

Phase 3

8.10.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.10m in thickness and had a surface level of 13.42m OD.

8.11 **Trench 11** (Figures 2 and 3)

Phase 1

8.11.1 The earliest deposit encountered in this trench was [43] a firm mid to light brown clay with occasional lenses of gravel. This layer was interpreted as a natural deposit and was encountered at 11.64m OD.

Phase 3

8.11.2 Sealing the natural were various deposits of dark greyish brown silty clay and grey ash made-ground and dumped material used as levelling layers up to 0.40m in thickness.

8.11.3 These levelling deposits are sealed by a thin layer of topsoil which forms the current ground surface in this part of the site with a surface level of 12.30m OD.

8.12 **Trench 12** (Figures 2 and 3)

Phase 1

8.12.1 The earliest deposit encountered in this trench was [42] a firm mid to light brown clay with occasional lenses of gravel. This layer was interpreted as a natural deposit and was encountered at 13.36m OD.

Phase 3

8.12.2 Sealing the natural clay were various deposits of modern made-ground and dumped material used as levelling layers up to 0.30m in thickness.

8.12.3 These levelling deposits are sealed by a thick layer of concrete up to 20m in thickness which in turn is over laid by a thin layer of tarmac. The tarmac forms the current ground surface at a level of 14.10m OD.

8.13 **Trench 13** (Figures 2 and 3)

Phase 1

8.13.1 The earliest deposit encountered in this trench was a mixed clay and gravel layer [37] interpreted as a natural deposit. The layer was a firm dark brown clayey silt layer with bands of gravel. It was recorded at 14.64m OD.

Phase 2

8.13.2 Sealing the natural was a layer of soft to firm mid grey brown sandy silt [33] with occasional sub-angular stones which was encountered from 15.04m OD and was 0.40m thick. The layer was interpreted as being part of a sequence of subsoil.

Phase 3

8.13.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 15.24m OD.

8.14 **Trench 14** (Figures 2 and 3)

Phase 1

8.14.1 The earliest deposit identified in this trench was a layer of clay gravel [39] seen at the base of the trench. The layer was a firm dark brown clay silt with bands of sand and gravel. It was recorded from 14.82m OD and was interpreted as being part of a sequence of natural deposits.

Phase 2

8.14.2 A sandy silt layer [38] sealed the natural deposits, it was encountered at 14.97m OD and was 0.15m thick. This layer was part of the sequence of subsoil seen across the site.

Phase 3

8.14.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 15.22m OD.

8.15 **Trench 15** (Figures 2 and 3)

Phase 1

8.15.1 A layer of clay gravel [31] was the earliest deposit encountered in this trench it was a firm dark brown clay with bands of sand and gravel, interpreted as being part of the natural sequence of deposits. It was recorded at 12.55m OD.

Phase 2

8.15.2 Sealing the natural in this trench was a layer [30] of sandy silt with occasional small sub-angular stones. It was recorded at 12.65m OD and was 0.20m thick. This layer was interpreted as being part of the sequence of subsoil seen across the site.

Phase 3

8.15.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 13.02m OD.

8.16 **Trench 16** (Figures 2 and 3)

Phase 1

8.16.1 The earliest deposit encountered in this trench was a firm dark brown clay [27] with lenses of sand and gravel. This layer was interpreted as a natural deposit and was encountered at 12.30m OD.

Phase 2

8.16.2 Sealing the natural deposits in this trench was [26] a layer of soft grey brown sandy silt with occasional small sub-angular stones, it was recorded at 12.62m OD and was 0.30m thick. This layer was interpreted as being part of the sequence of subsoil.

Phase 3

8.16.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 12.80m OD.

8.17 **Trench 17** (Figures 2 and 3)

Phase 1

8.17.1 The earliest deposit identified in this trench was a layer of clay gravel [25] seen at the base of the trench. The layer was a firm dark brown clay silt layer with bands of sand and gravel. It was recorded from 12.18m OD and was interpreted as being part of a sequence of natural deposits.

Phase 2

8.17.2 A sandy silt layer [5] was sealing the natural deposits, it was encountered at 12.58 OD and was 0.40m thick. This layer was part of the sequence of subsoil seen across the site.

Phase 3

8.17.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.10m in thickness and had a surface level of 12.68m OD.

8.18 Trench 18 (Figures 2 and 3)

Phase 1

8.18.1 A layer of clay gravel [20] was the earliest deposit encountered in this trench. It was a firm dark brown clay with bands of sand and gravel, and was interpreted as being part of the natural sequence of deposits. It was recorded at 13.06m OD.

Phase 2

8.18.2 Sealing the natural in this trench was a layer [19] of sandy silt with occasional lenses of gravel and flecks of coal. It was recorded at 13.29m OD and was 0.30m thick. This layer was interpreted as being part of the sequence of subsoil seen across the site.

Phase 3

8.18.3 The subsoil was capped by a layer of compacted gravel which formed the current ground surface. This layer was 0.30m in thickness and had a surface level of 13.69m OD.

8.19 **Trench 19** (Figures 2 and 3)

Phase 1

8.19.1 The earliest deposit encountered in this trench was [18] a firm dark orangey brown sandy gravel with occasional patches of mid brown silty clay. This layer was interpreted as a natural deposit and was encountered at 12.02m OD.

Phase 3

8.19.2 Sealing the natural deposits was a layer of modern made-ground up to 0.30m thick which in turn was sealed by a thin layer of surface tarmac. The current ground level on the surface of the tarmac was 12.34m OD.

8.20 **Trench 20** (Figures 2 and 3)

Phase 1

8.20.1 The earliest deposit encountered in this trench was a firm dark orangey brown gravel [23] with patches of mid brown silty clay. This layer was interpreted as a natural deposit and was encountered at 11.47m OD.

Phase 3

8.20.2 Sealing the natural deposits were various layers of modern made-ground up to 0.30m thick which in turn were sealed by a thin layer of surface tarmac. The current ground level on the surface of the tarmac was 11.78m OD.

8.21 **Trench 21** (Figures 2 and 3)

Phase 1

8.21.1 A layer of clay gravel [17] was the earliest deposit encountered in this trench; it was a firm dark brown clay with bands of sand and gravel, and was interpreted as being part of the natural sequence of deposits. It was recorded at 11.28m OD.

Phase 2

8.21.2 Sealing the natural in this trench was a layer of sandy silt [16] with occasional lenses of gravel and small fragments of CBM and coal. It was recorded at 11.56m OD and was 0.30m thick. This layer was interpreted as being part of the sequence of subsoil seen across the site.

Phase 3

8.21.3 The subsoil was capped by a layer of topsoil which formed the current ground surface. This layer was 0.20m in thickness and had a surface level of 11.66m OD.

8.22 **Trench 22** (Figures 2 and 3)

Phase 1

8.22.1 The earliest deposit encountered in this trench was a firm dark brown clay [15] with lenses of sand and gravel. This layer was interpreted as a natural deposit and was encountered at 11.48m OD.

Phase 2

8.22.2 Sealing the natural deposits in this trench was a layer of soft grey brown sandy silt [14] with occasional small sub-angular stones, it was recorded at 11.68m OD and was 0.20m thick. This layer was interpreted as being part of the sequence of subsoil.

Phase 3

8.22.3 Sealing the subsoil was a layer of topsoil which formed the current ground surface. This layer was 0.25m in thickness and had a surface level of 11.93m OD.

9 DISCUSSION AND CONCLUSIONS

9.1 Discussion

9.1.1 The Phase 1 evaluation identified three broad phases of deposits and activity.

9.1.2 Twenty two evaluation trenches were excavated across the site at a depth of up to 1.00m below the current ground level. Natural drift deposits of clay gravel, forming archaeological Phase 1, were recorded in all of the evaluation trenches.

9.1.3 Natural geology of clay gravel layers were recorded in all of the trenches between 14.93m OD at its highest to the north-west and 11.28m OD lower down to the south-east.

9.1.4 There was very little direct dating of the layers forming the subsoil but it is believed that this material was developed over a broad length of time through the medieval to late post-medieval periods, and represented the agricultural land that would have formed the vast majority of the area at this time. This post-medieval agricultural usage of the site and the area is evidenced on historic maps (see CgMs 12018a, Figures 3-10).

9.1.5 The modern deposits of made ground were part of the development and landscaping of the site during the middle part of the 20th century when the surrounding structures and built elements of St. Georges Hospital were established. It would have been during this period that some terracing occurred (implied by an absence of subsoil deposits from some trenches).

9.2 Research Objectives

9.2.1 The WSI (CgMs 2018b) for the evaluation posed the following research objectives.

To determine the existence or absence of any archaeological remains;

To determine or confirm the approximate date or date range of the remains, by means of artefactual or other evidence;

To determine or confirm the approximate extent of the remains;

To determine the condition and state of preservation of the remains;

To determine, as far as is possible, the implications of the remains with reference to economy, status, utility and social activity;

To determine the potential of the site to provide palaeo-environmental and/or economic evidence and the forms in which such evidence may be present;

9.2.2 The site contained no evidence of any archaeological remains.

To determine the degree of complexity of the horizontal and/or vertical stratigraphy present;

9.2.3 The stratigraphic sequence on the site was very simple, comprising natural superficial deposits

sealed in most trenches below subsoil, then sealed below modern strata.

To assess the associations and implications of any remains encountered with reference to the historic landscape;

9.2.4 Apart from the undated subsoil which is likely to have derived from the field-systems seen on the historic maps, no archaeological remains were discovered.

To determine or confirm the likely range, quality and quantity of the artefactual evidence present;

9.2.5 The site contained no evidence of any archaeological artefacts worthy of collection. Artefacts were entirely limited to fragmentary ceramic building material (CBM) within the modern horizons.

To determine the sequence and dating of Made Ground deposits to enable an understanding of the recent history of the site and its impact on archaeological remains;

9.2.6 The study area remained open fields until the mid-20th century when the Ordnance Survey map of 1938 shows that St. George's Hospital had been constructed on the site. The construction of the hospital buildings with their foundations and service runs would have had the greatest impact on the archaeological resource, including some localized terracing and landscaping of the surrounding hospital grounds. However, the presence of subsoil deposits in 17 of the 22 trenches demonstrates that the extent of modern impact has not been total.

9.3 Conclusions

9.3.1 The evaluation of the Phase 1 area of St George's Hospital has found a stark absence of any archaeological remains, despite the evidence implying that the degree of truncation caused by the hospital has not been widespread.

9.3.2 Once the project is deemed complete and this report is approved by Historic England on behalf of the local planning authority, the completed archive comprising all site records from the fieldwork will eventually be deposited by Pre-Construct Archaeology Limited with LAARC under the site code SUS18.

9.3.3 The results of the archaeological investigation will be published as an entry in the *London Archaeologist* annual Round-Up.

10 BIBLIOGRAPHY

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CgMs Heritage 2018b, 'St. George's Hospital, 117 Suttons Lane, Hornchurch, London RM12. Written Scheme of Investigation for an Archaeological Evaluation', unpublished report

WSP 2014, St. Georges Hospital, Hornchurch: Geoenvironmental and Geotechnical Investigation, unpublished report

11 ACKNOWLEDGEMENTS

11.1 Pre-Construct Archaeology would like to thank CgMs Heritage for commissioning and funding this investigation on behalf of Bellway Homes Limited (Thames Gateway).

11.2 Pre-Construct Archaeology would like to thank Adam Single of Historic England for monitoring the work and Richard von Kalinowski-Meager of CgMs Heritage for his consultancy work. Special thanks to Oakwood Demolition as Principal Contractor for their on-site assistance.

11.3 Thanks are given to PCA's Ester Capuz-Duran, Corso Dominici and Phil Frickers for their fieldwork, to Rosie Banens and Guy Seddon for their survey work, and PCA's CAD section for the illustrations.

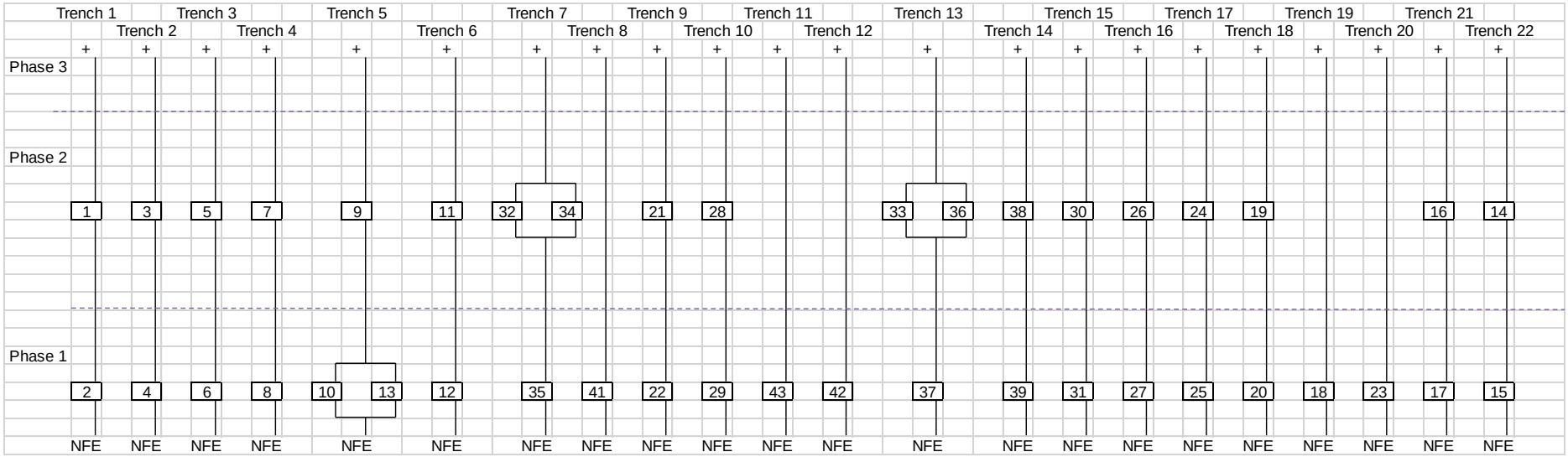
11.4 Special thanks are given to Chris Mayo for his project management and the editing of this report.

APPENDIX 1: CONTEXT INDEX

Site Code	Context No.	Trench	Plan	Section	Type	Description	Highest Level	Dimensions (N-S)	Dimensions (E-W)	Thickness	Photos	Phase
SUS18	1	1	Tr. 1	1	Layer	Clay	14.62	2.00	20.00	0.40	D1	2
SUS18	2	1	Tr. 1	1	Layer	Natural Clay	14.30	2.00	20.00	0.40	D1	1
SUS18	3	2	Tr. 2	2	Layer	Sub-Soil	14.81	2.00	20.00	0.45	D1	2
SUS18	4	2	Tr. 2	2	Layer	Natural Clay Gravel	14.56	2.00	20.00	0.15	D1	1
SUS18	5	3	Tr. 3	3	Layer	Sub-Soil	14.96	2.00	20.00	0.40	D1	2
SUS18	6	3	Tr. 3	3	Layer	Natural Clay Gravel	14.67	2.00	20.00	0.10	D1	1
SUS18	7	4	Tr. 4	4	Layer	Sub-Soil	15.13	2.00	20.00	0.20	D1	2
SUS18	8	4	Tr. 4	4	Layer	Natural	14.93	2.00	20.00	0.20	D1	1
SUS18	9	5	Tr. 5	5	Layer	Sub-Soil	14.92	2.00	20.00	0.25	D1	2
SUS18	10	5	Tr. 5	5	Layer	Natural Clay Gravel	14.60	2.00	20.00	0.40	D1	1
SUS18	11	6	Tr. 6	6	Layer	Sub-Soil	14.06	2.00	20.00	0.10	D1	2
SUS18	12	6	Tr. 6	6	Layer	Natural Clay Gravel	13.94	2.00	20.00	0.30	D1	1
SUS18	13	5	Tr. 5	N/A	Layer	Natural Clay	14.60	2.00	20.00		D1	1
SUS18	14	22	Tr. 22	7	Layer	Sub-Soil	11.68	2.00	20.00	0.20	D1	2
SUS18	15	22	Tr. 22	7	Layer	Natural Clay Gravel	11.48	2.00	20.00	0.20	D1	1
SUS18	16	21	Tr. 21	8	Layer	Sub-Soil	11.56	2.00	20.00	0.30	D1	2
SUS18	17	21	Tr. 21	8	Layer	Natural Clay Gravel	11.28	2.00	20.00	0.10	D1	1
SUS18	18	19	Tr. 19	9	Layer	Natural Sandy Gravel	12.02	2.00	20.00	0.30	D1	1
SUS18	19	18	Tr. 18	10	Layer	Sub-Soil	13.29	20.00	2.00	0.30	D1	2
SUS18	20	18	Tr. 18	10	Layer	Natural Clay Gravel	13.06	20.00	2.00	0.20	D1	1
SUS18	21	9	Tr.9	11	Layer	Sub-Soil	13.24	20.00	2.00	0.20	D1	2
SUS18	22	9	Tr. 9	11	Layer	Natural Clay Gravel	13.10	20.00	2.00	0.20	D1	1
SUS18	23	20	Tr. 20	12	Layer	Natural Clay Gravel	11.47	2.00	20.00	0.20	D1	1
SUS18	24	17	Tr. 17	13	Layer	Sub-Soil	12.57	2.00	20.00	0.15	D1	2
SUS18	25	17	Tr. 17	13	Layer	Natural Clay Gravel	12.18	2.00	20.00	0.20	D1	1
SUS18	26	16	Tr. 16	14	Layer	Sub-Soil	12.62	20.00	2.00	0.30	D1	2
SUS18	27	16	Tr. 16	14	Layer	Natural Clay Gravel	12.30	20.00	2.00	0.30	D1	1
SUS18	28	10	Tr. 10	15	Layer	Sub-Soil	13.22	20.00	2.00	0.30	D1	2
SUS18	29	10	Tr. 10	15	Layer	Natural Clay Gravel	13.07	20.00	2.00	0.20	D1	1
SUS18	30	15	Tr. 15	16	Layer	Sub-Soil	12.65	2.00	20.00	0.20	D1	2
SUS18	31	15	Tr. 15	16	Layer	Natural Clay Gravel	12.55	2.00	20.00	0.30	D1	1
SUS18	32	7	Tr. 7	17	Layer	Gravel	12.44	20.00	2.00	0.10	D1	1

Site Code	Context No.	Trench	Plan	Section	Type	Description	Highest Level	Dimensions (N-S)	Dimensions (E-W)	Thickness	Photos	Phase
SUS18	33	13	Tr. 13	18	Layer	Sub-Soil	12.79	2.00	20.00	0.30	D1	2
SUS18	34	7	Tr. 7	17	Layer	Sub-Soil	11.99	20.00	2.00	0.20	D1	2
SUS18	35	7	Tr. 7	17	Layer	Natural Clay Gravel	11.49	20.00	2.00	0.05	D1	1
SUS18	36	13	Tr. 13	18	Layer	Gravel	14.56	2.00	20.00	0.10	D1	2
SUS18	37	13	Tr. 13	18	Layer	Natural Clay Gravel	14.64	2.00	20.00	0.10	D1	1
SUS18	38	14	Tr. 14	19	Layer	Sub-Soil	14.97	2.00	20.00	0.15	D1	2
SUS18	39	14	Tr. 14	19	Layer	Natural Silty Clay	14.82	2.00	20.00	0.15	D1	1
SUS18	40	8	Tr. 8	21	Layer	Sub-Soil	13.93	2.00	20.00	0.10	D1	2
SUS18	41	8	Tr. 8	21	Layer	Natural Clay Gravel	13.78	2.00	20.00	0.25	D1	1
SUS18	42	12	Tr. 12	20	Layer	Clay	13.36	20.00	2.00	0.20	D1	2
SUS18	43	11	Tr. 11	22	Layer	Natural Clay Gravel	11.64	20.00	2.00	0.20	D1	1

APPENDIX 2: SITE MATRIX



APPENDIX 3: OASIS REPORT FORM

OASIS ID: preconst1-328543

Project details	
Project name	St. George's Hospital, 117 Suttons Lane, Hornchurch, RM12 6RS: An Archaeological Evaluation
Short description of the project	Twenty-two trenches were excavated across the site up to 1.00m below current ground level, in order to ascertain the archaeological potential of the site and the extent of past truncation, as well as assisting in the design of further archaeological work if required. Natural clay gravel deposits were recorded in all of the trenches excavated, at varying levels between 14.93m OD and 11.28m OD. Deposits of subsoil were noted in all of the twenty-two trenches sealing the natural deposits. These were in turn capped by layers of top soil and in some instances made-ground and tarmac. No archaeological deposits or features were observed during the evaluation.
Project dates	Start: 28-08-2018 End: 07-09-2018
Previous/future work	No / Not known
Any associated project reference codes	SUS18 - Sitecode
Any associated project reference codes	P0321.15 - Planning Application No.
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	NONE None
Significant Finds	NONE None
Methods & techniques	"'Targeted Trenches"'
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	Pre-application
Project location	
Country	England
Site location	GREATER LONDON HAVERING HORNCHURCH St. George's Hospital, 117 Suttons Lane, Hornchurch, RM12 6RS,
Postcode	RM12 6RS
Study area	7.58 Hectares
Site coordinates	TQ 53955 85485 51.546719625223 0.220576360291 51 32 48 N 000 13 14 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 10.72m Max: 15.41m
Project creators	

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	CgMs Consulting
Project design originator	Richard Meager
Project director/manager	Chris Mayo
Project supervisor	Matt Edmonds
Type of sponsor/funding body	House builder
Name of sponsor/funding body	Bellway Homes Limited
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	LAARC
Digital Archive ID	SUS18
Digital Contents	''Stratigraphic''
Digital Media available	''Database'',''Images raster / digital photography'',''Spreadsheets'',''Survey'',''Text''
Paper Archive recipient	LAARC
Paper Archive ID	SUS18
Paper Contents	''Stratigraphic''
Paper Media available	''Context sheet'',''Diary'',''Drawing'',''Plan'',''Report'',''Section'',''Survey ''
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	St. George's Hospital Phase 1, 117 Suttons Lane, Hornchurch, RM12 6RS; An Archaeological Evaluation
Author(s)/Editor(s)	Edmonds, M.
Other bibliographic details	PCA R13401
Date	2018
Issuer or publisher	PCA
Place of issue or publication	London
Description	Grey lit eval report in pdf format with PCA covers
Entered by	Chris Mayo (cmayo@pre-construct.com)
Entered on	20 September 2018

APPENDIX 4: PHOTOGRAPHS

Plate 1: Trench 1 – Looking West

Plate 2: Trench 2 – Looking North-West

Plate 3: Trench 3 – Looking South-East

Plate 4: Trench 4 – Looking North-East

Plate 5: Trench 5 – Looking North-East

Plate 8: Trench 8 – Looking East

Plate 6: Trench 6 – Looking South-West

Plate 9: Trench 9 – Looking South

Plate 7: Trench 7 – Looking South

Plate 10: Trench 10 – Looking South-West

Plate 11: Trench 11 – Looking South

Plate 14: Trench 14 – Looking East

Plate 12: Trench 12 – Looking North

Plate 15: Trench 15 – Looking East

Plate 13: Trench 13 – Looking East

Plate 16: Trench 16 – Looking North

Plate 17: Trench 17 – Looking East

Plate 20: Trench 20 – Looking East

Plate 18: Trench 18 – Looking North

Plate 21: Trench 21 – Looking North-East

Plate 19: Trench 19 – Looking North

Plate 22: Trench 22 – Looking North-East

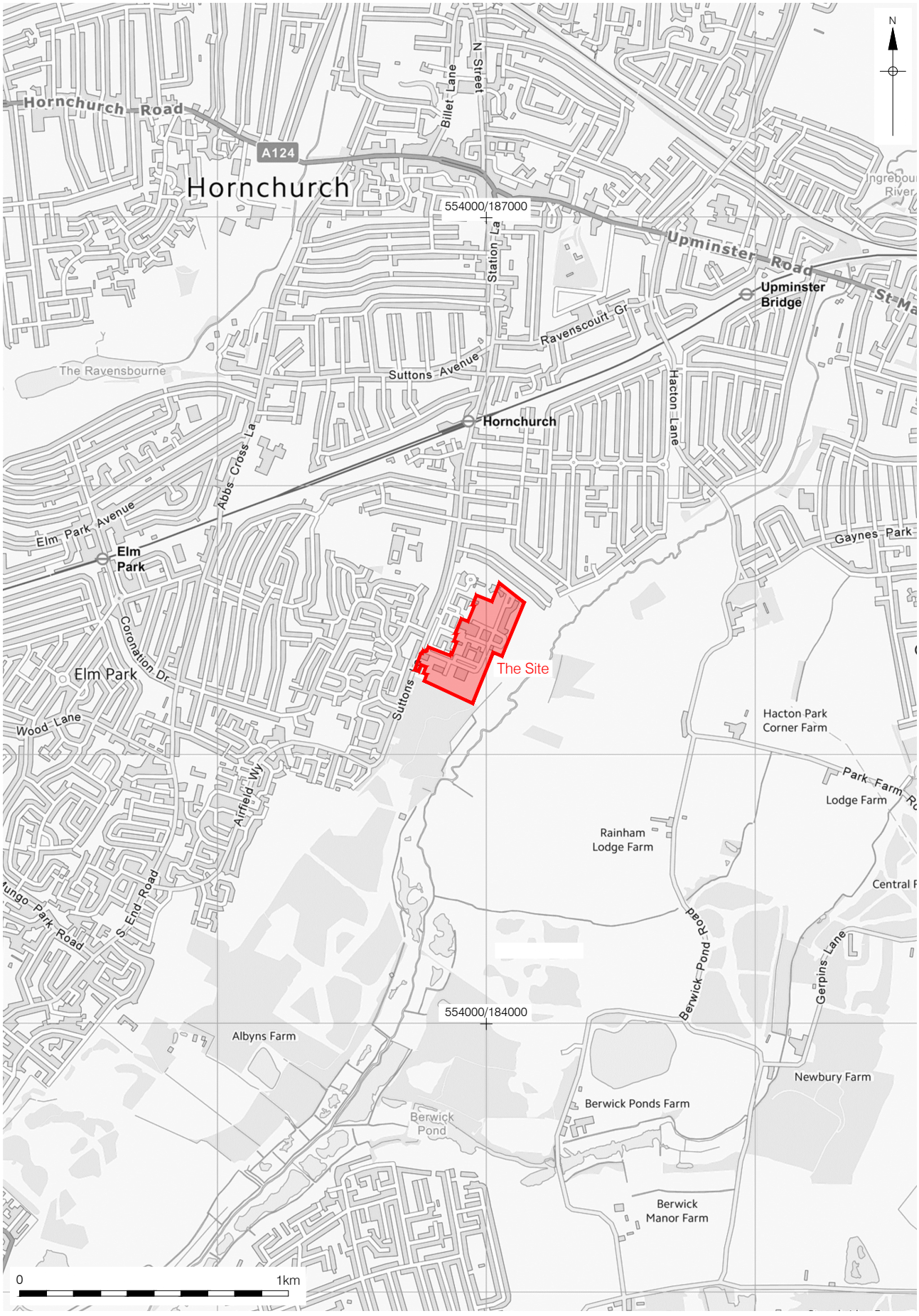


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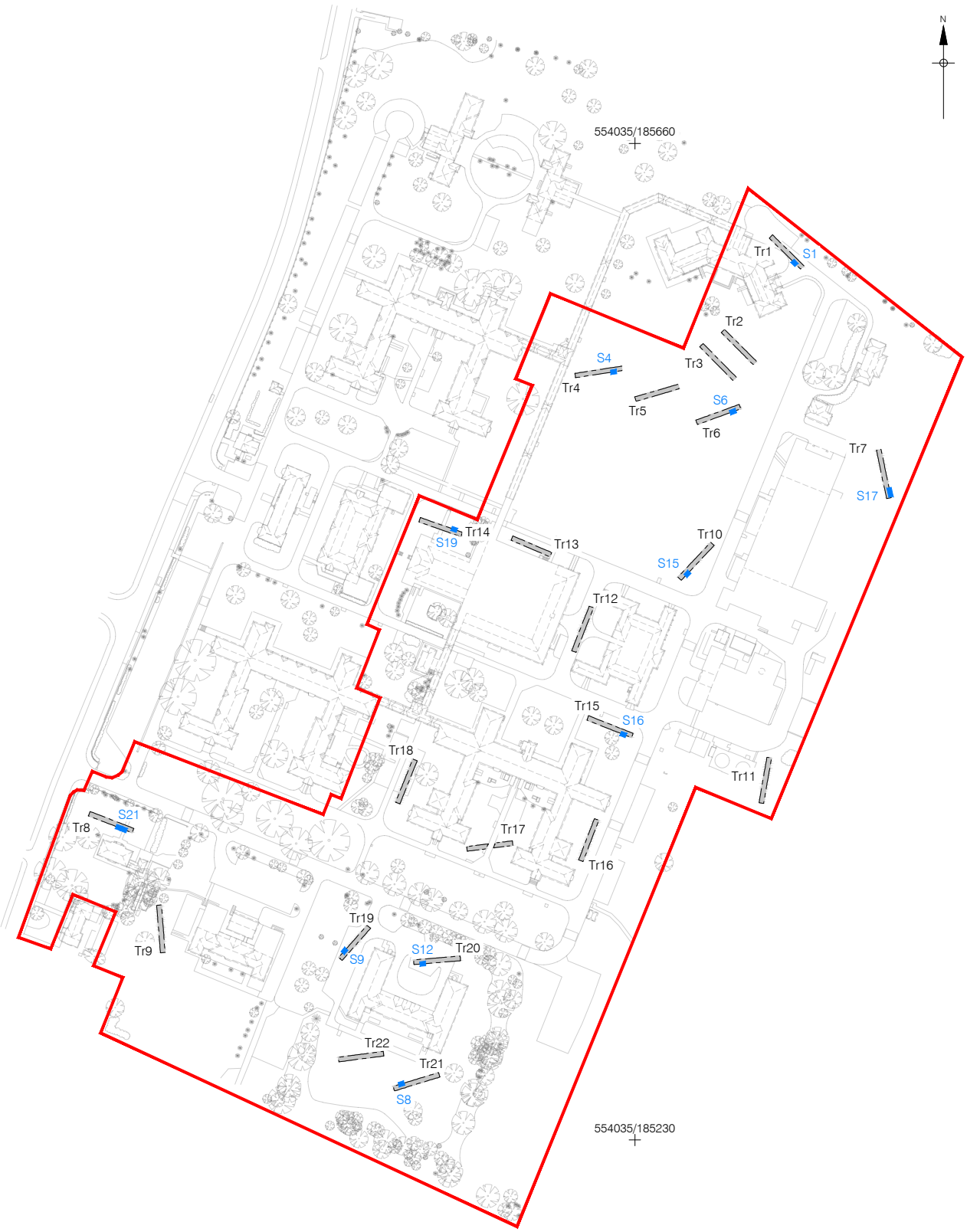
Figure 1
Site Location
1:20,000 at A4



Excavated Trench

0 100m

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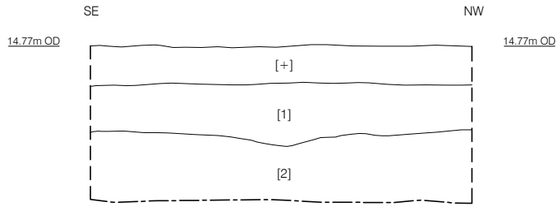
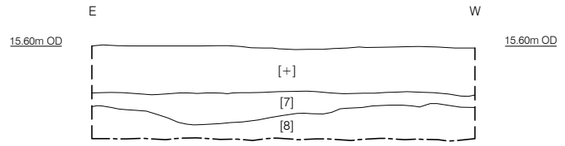
Figure 2
Trench Locations
1:2,500 at A4



Section 1
Northeast Facing
Trench 1



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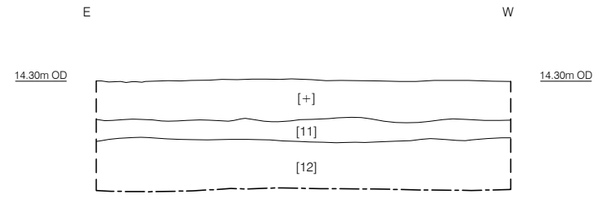
North Facing
Trench 4



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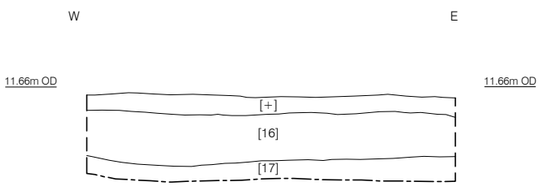
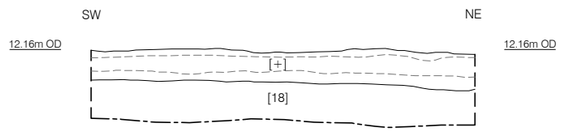
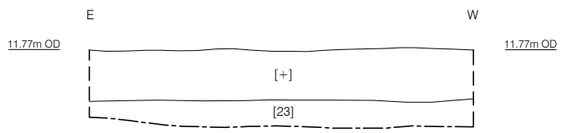
North Facing
Trench 6



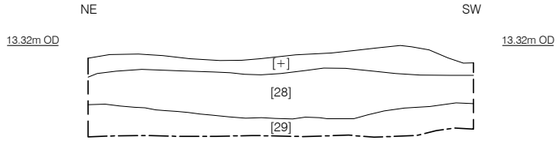
Section 8
South Facing
Trench 21



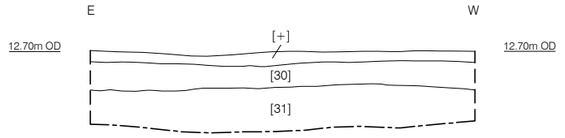
Section 9
Southeast Facing
Trench 19



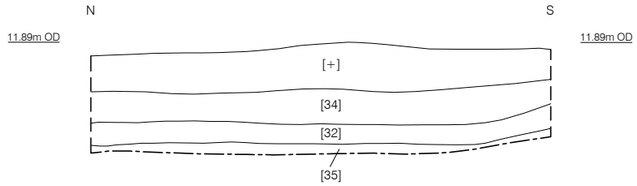
Section 12
North Facing
Trench 20



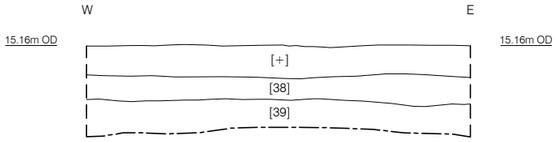
Section 15
Northwest Facing
Trench 10



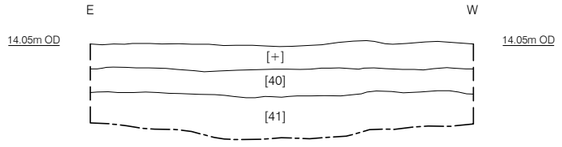
Section 16
North Facing
Trench 15



Section 17
West Facing
Trench 7



Section 19
South Facing
Trench 14



Section 21
North Facing
Trench 8

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Figure 3
Sections
1:40 at A3

P C A

PCA SOUTH
UNIT 54
BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD
BROCKLEY
LONDON SE4 2PD
TEL: 020 7732 3925 / 020 7639 9091
FAX: 020 7639 9588
EMAIL: info@pre-construct.com

PCA NORTH
UNIT 19A
TURSDALE BUSINESS PARK
DURHAM DH6 5PG
TEL: 0191 377 1111
FAX: 0191 377 0101
EMAIL: info.north@pre-construct.com

PCA CENTRAL
THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN
TEL: 01223 845 522
FAX: 01223 845 522
EMAIL: info.central@pre-construct.com

PCA WEST
BLOCK 4
CHILCOMB HOUSE
CHILCOMB LANE
WINCHESTER
HAMPSHIRE SO23 8RB
TEL: 01962 849 549
EMAIL: info.west@pre-construct.com

PCA MIDLANDS
17-19 KETTERING RD
LITTLE BOWDEN
MARKET HARBOROUGH
LEICESTERSHIRE LE16 8AN
TEL: 01858 468 333
EMAIL: info.midlands@pre-construct.com