

Plot 5100 Hatfield Business Park Hertfordshire

*Written Scheme of Investigation for an Archaeological Strip, Map
and Record Excavation*



for
Arlington

CA Project: MK0009
February 2019

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Plot 5100
Hatfield Business Park
Hertfordshire

Written Scheme of Investigation for an Archaeological
Excavation

CA Project: MK0009



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CONTENTS

1.	INTRODUCTION.....	3
2.	ARCHAEOLOGICAL BACKGROUND.....	4
3.	AIMS AND OBJECTIVES.....	6
4.	METHODOLOGY.....	7
5.	STAFF AND TIMETABLE.....	10
6.	POST-EXCAVATION, ARCHIVING AND REPORTING.....	11
7.	HEALTH, SAFETY AND ENVIRONMENT.....	14
8.	INSURANCES.....	14
9.	MONITORING.....	15
10.	QUALITY ASSURANCE.....	15
11.	PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT.....	15
12.	STAFF TRAINING AND CPD.....	15
13.	REFERENCES.....	16
	APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS.....	18
	APPENDIX B: ARCHAEOLOGICAL STANDARDS AND GUIDELINES.....	20

1. INTRODUCTION

- 1.1 This document sets out details of a *Written Scheme of Investigation* (WSI) by Cotswold Archaeology (CA) for a Strip, Map and Record Excavation at Plot 5100, Hatfield Business Park, Hatfield, Hertfordshire (centred at NGR: 521334 209157) at the request of Arlington.
- 1.2 The work is being undertaken to accompany a planning application to Welwyn Hatfield Borough Council (WHBC; the local planning authority) for industrial development of the site.
- 1.3 The scope of the strip, map and record excavation was defined during discussions between CA and Andy, Hertfordshire County Council's Historic Environment Advisor (HCCHEA), the archaeological advisors to WHBC.
- 1.4 This WSI has been guided in its composition by the pre-application advice issued by the HCCHEA, *Standard and guidance: Archaeological excavation* (ClfA 2014), the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* and the accompanying *PPN 3: Archaeological Excavation* (Historic England 2015) and any other relevant standards or guidance contained within Appendix B.

The site

- 1.5 The site comprises a plot of land, approximately 2.5ha in extent, near the centre of Hatfield Business Park, which is located on the north-western outskirts of Hatfield, to the west of the A1 (M), situated within the Vale of St Albans. The business park occupies the site of the former Hatfield Aerodrome.
- 1.6 The site comprises an irregular plot of land which is currently grass land. The site is bounded to the north and west by industrial units, to the east by Gypsy Moth Avenue and to the south by mosquito way. The topography of the site and the surrounding area is generally flat, lying at c.75m above Ordnance Datum (aOD).
- 1.7 The underlying bedrock geology of the area is mapped as Lewes Nodular Chalk Formation and Seaford Chalk Formation of the Cretaceous period with superficial deposits of Lowestoft Formation Diamicton formed in the Quaternary Period (BGS

2018). The encountered natural substrate was recorded as silty clays with varying chalk and flint deposits (CAT 1999a) and gravels and sands (CA 2017) during previous archaeological works.

2. ARCHAEOLOGICAL BACKGROUND

2.1 The archaeological and historical background of the site has been detailed within an Archaeological Assessment (CAT 1999b) and from more recent archaeological investigations (CAT 1999b, MOLA 2001, 2004, 2015, CA 2017). The following section has been summarised from these sources.

Prehistoric (pre AD 43)

2.2 Archaeological investigations within the area of the business park over the last two decades have revealed the extensive remains of a Late Bronze Age or Early Iron Age field system, with some evidence for contemporary settlement and funerary remains. Initially identified by the evaluation undertaken by CA (CAT 1999b) covering the site and the surrounding area Trenches 54 and 66-69 were located within or partly within in the area of the site none of which revealed any archaeological remains. Subsequent mitigation work by MOLA confirmed the presence of the field system within the site of Plot 5600, along with several groups of postholes that appeared to form a small rectangular structure and a series of straight-sided enclosures.

2.3 Recent excavations on the adjoining plot 5000 directly to the east revealed the presence of Middle to Late Bronze Age activity in the form of field systems, possible structures and cremations. A semi-circular arc of postholes potentially represents a small building: associated pits and postholes provide further evidence for settlement activity. An L-shaped distribution of postholes and possible cremations potentially relate to a cremation cemetery or remains of a sub-rectangular building. All of the settlement activity was located within an enclosed area showing evidence of maintenance. Trenches 54 and 66-69 were located in the area of the site

2.3 Further settlement remains of Middle Bronze Age date were recorded at the University of Hertfordshire Bus Garage site, c.1km to the north of the site. The remains comprised three or possibly four ditches and a number of small pits; worked

flint flakes and a sherd of Middle Bronze Age Deveril-Rimbury pottery were recovered from these features.

- 2.4 Three unurned cremation burials were found during the evaluation; although undated, they are considered to be Bronze Age or Iron Age in date (CAT 1999b).

Late Iron Age and Roman (100 BC to AD 410)

- 2.6 Two Late Iron Age or early Roman field boundary ditches and an urned cremation burial were identified in trial trenches close to the western edge of the business park, approximately 400m to the west of the site (CAT 1999b, 17–18). Two pits, a posthole and a small quantity of Roman pottery were also recovered during mitigation works for the development of the residential area in the same area (MOLA 2004).

- 2.7 No evidence has been identified for Late Iron Age or Roman settlement within the business park, suggesting that the area was predominately farmland in the Roman period. However, a residual fragment of box flue tile and a small assemblage of Roman finds were recovered from the site of Plot 5600, suggesting that there may have been a heated Roman building in the vicinity (MOLA 2015).

Saxon AD (410 to 1066)

- 2.8 Approximately 700m to the north-east of the site, nine sherds of Anglo-Saxon pottery were recovered during an archaeological watching brief at the LM Solutions site (MOLA 2001). The pottery has been dated to the Early to Middle Saxon period (AD 400–750). More recently, several Saxon pits yielding a large assemblage of early Saxon pottery were investigated within the site of Plot 5600, c. 500m to the north-east of the site (MOLA 2015).

Medieval (1066 to 1485)

- 2.9 During the medieval period the site lay within an area of open fields and woodland, interspersed with small farmsteads, at a distance from local centres. No archaeological remains of medieval date have been identified within the area of the business park.
- 2.10 The site of Harpsfield Hall, which is located approximately 300m to the west of the site, was a post-medieval building constructed on the site of an earlier medieval manor house. In a charter drawn up during the reign of King John (1199–1215), the

manor was recorded as belonging to the Abbot of St Albans and it was held from the Abbey by Ralph de Harpsfield. The Harpsfields retained the manor until its return to the Abbey in 1429 (CAT 1999a).

Post-medieval and modern (1485 to present)

- 2.11 During the post-medieval period the site and the surrounding area lay within the estate of Harpsfield Hall, which was rebuilt in the 17th century on the site of the medieval manor. Excavations at the site of Harpsfield Hall have indicated five major phases of development at the hall, dating from the 17th to the 19th centuries.
- 2.12 Reference to historic mapping shows that the site was farmland or parkland from the mid-18th century, with a number of paths radiating out from the hall complex.
- 2.13 Hatfield Aerodrome was opened in 1930 and the de Havilland Aircraft Company moved its main headquarters and factory there in 1934. Expansion of the aerodrome led to the demolition of Harpsfield Hall in 1938. During WWII the factory developed and produced the Mosquito fighter bomber. A concrete runway was built at the aerodrome in 1947 and during the Cold War years the Blue Streak rocket was developed by BAe Dynamics at the aerodrome in specially constructed buildings.

3. AIMS AND OBJECTIVES

- 3.1 The objectives of the archaeological mitigation are to:
- record the nature of the main stratigraphic units encountered
 - assess the overall presence, survival and potential of structural and industrial remains
 - assess the overall presence, survival, condition, and potential of artefactual and ecofactual remains
- 3.2 The specific aims of the work are to:
- record any evidence of past settlement or other land use
 - recover artefactual evidence to date any evidence of past settlement that may be identified
 - sample and analyse environmental remains to create a better understanding of past land use and economy

- 3.3 Subject to the results of the fieldwork, the specific research aims of the project will be reviewed and updated to incorporate new findings. The results will be examined with reference to *Research and Archaeology Revisited: A Revised Framework for the East of England* (Medlycott 2011).

Bronze Age

- To investigate the relationship between settlement sites and burial;
- To excavate/investigate Bronze Age sites in non-gravel locations,
- To gain a better characterisation of the nature of changes associated with the adoption and development of farming, the beginning of woodland clearance and establishment of permanent field systems.

4. METHODOLOGY

Excavation and recording

- 4.1 The archaeological excavation will be undertaken within the footprint of the building prior to development taking place, and in the areas of any landscaping works, site strip or ground reduction which is likely to impact on the below ground archaeological remains. The final excavation area will be approved by the HCCHEA.
- 4.2 Excavation areas will be set out on OS National Grid (NGR) co-ordinates using a Leica GPS, and scanned for live services by trained staff using CAT and Genny equipment in accordance with the Cotswold Archaeology *Safe System of Work for avoiding underground services*. The position and size of excavation areas may be adjusted on site to account for services and other constraints, with the approval of the HCCHEA. The final 'as dug' areas will be recorded with GPS.
- 4.3 Initially works will comprise the mechanical removal of non-archaeologically significant soils, under constant archaeological supervision, using a toothless ditching bucket. The generated spoil will be monitored in order to recover artefacts, including systematic sweeping with a metal detector. Metal detecting and hand-cleaning of the stripped surface, to better define any identified archaeological deposits/features and record the distribution of unstratified/surface artefacts, will be undertaken if deemed appropriate. All machining will be conducted under archaeological supervision and will cease when the first archaeological horizon or natural substrate is revealed (whichever is encountered first). All archaeological features will be recorded in plan using Leica GPS. No plant or any other site

vehicles will be permitted to track or drive over the stripped area until it has been signed off by HCCHEA and no parts of the excavation areas will be handed back to the developer until written confirmation that they have been signed off is obtained from County Archaeological Services. A post excavation plan showing the features and interventions along with grid references will need to be provided for any sign off areas in advance of this written confirmation.

- 4.4 Examination of features will concentrate on recovering the plan and any structural sequences. Particular emphasis will be placed upon gaining a secure understanding of the stratigraphic and chronological development of the site, including the recovery of samples suitable for radiocarbon dating where appropriate, and on upon obtaining details of the phasing of the site.
- 4.5 Following the mechanical stripping of the site to the first archaeologically significant layer, all features will be recoded in plan. Once the planning has been completed the sampling strategy will be agreed between the archaeological contractor (acting on behalf of the applicant) and County Archaeological Services. This iterative approach will form the basis of the excavation strategy. However, the following sampling strategies will be appropriate unless otherwise specified during the initial post-site strip discussions. All funerary/ritual activity and domestic/industrial deposits will be 100% excavated. All discrete features (post holes, pits) will be sampled by hand excavation (average sample unlikely to exceed 50%) unless their common/repetitious nature suggests they are unlikely to yield significant new information. All linear features (ditches, pathways etc) will be sampled to a maximum of 10%. Bulk horizontal deposits will as a minimum be 10% by area hand excavated, after which a decision may be taken (in conjunction with the HCCHEA) to remove the remainder with machinery. Priority will be attached to features which yield sealed assemblages which can be related to the chronological sequence of the site.
- 4.6 All archaeological features revealed will be planned and recorded in accordance with CA Technical Manual 1 *Fieldwork Recording Manual*. Each context will be recorded on a pro-forma context sheet by written and measured description; principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS or Total Station (TST) as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Where detailed feature planning is undertaken using GPS/TST this will be carried out in accordance with CA Technical Manual 4 *Survey Manual*. Photographs (digital colour) will be taken as appropriate.

All finds and samples will be bagged separately and related to the context record. All artefacts will be recovered and retained for processing and analysis in accordance with CA Technical Manual 3 *Treatment of Finds Immediately after Excavation*.

Artefact retention and discard

- 4.7 Artefacts from topsoil and subsoil and un-stratified contexts will normally be noted but not retained unless they are of intrinsic interest (e.g. worked flint or flint debitage, featured pottery sherds, and other potential 'registered artefacts'). All artefacts will be collected from stratified excavated contexts except for large assemblages of post-medieval or modern material. Such material may be noted and not retained, or, if appropriate, a representative sample may be collected and retained.

Human remains

- 4.8 If human remains are encountered, the client and the HCCHEA will be informed immediately. Where excavation of human remains is undertaken, this will be conducted following the provisions of the Coroners Unit in the Ministry of Justice.

Environmental remains

- 4.9 Due care will be taken to identify deposits which may have environmental potential, and where appropriate, a programme of environmental sampling will be initiated. This will follow the Historic England environmental sampling guidelines outlined in *Environmental Archaeology, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011), and CA *Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*. The sampling strategy will be adapted for the specific circumstances of this site, in close consultation with the CA Environmental Officer, but will follow the general selection parameters set out in the following paragraphs.
- 4.10 Secure and phased deposits, especially those related to settlement activity and/or structures will be considered for sampling for the recovery of charred plant remains, charcoal and mineralised remains. Any cremation-related deposits will be sampled appropriately for the recovery of cremated human bone and charred remains. If any evidence of *in situ* metal working is found, suitable samples for the recovery of slag and hammer scale will be taken.

- 4.11 Where sealed waterlogged deposits are encountered, samples for the recovery of waterlogged remains, insects, molluscs and pollen, as well as any charred remains, will be considered. The taking of sequences of samples for the recovery of molluscs and/or waterlogged remains will be considered through any suitable deposits such as deep enclosure ditches, barrow ditches, palaeo-channels, or buried soils. Monolith samples will also be taken from this kind of deposit as appropriate to allow soil and sediment description/interpretation as well as sub-sampling for pollen and other micro/macrofossils such as diatoms, foraminifera and ostracods.
- 4.12 The need for any more specialist samples, such as OSL, archaeomagnetic dating and dendrochronology will be evaluated and will be taken under the direction of the relevant specialist.
- 4.13 The processing of the samples will be done in conjunction with the relevant specialist following the Historic England general environmental processing guidelines (English Heritage 2011). Flotation or wet sieve samples will be processed to 0.25mm. Other more specialist samples such as those for pollen will be prepared by the relevant specialist. Further details of the general sampling policy and the methods of taking and processing specific sample types are contained within *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.

Treasure

- 4.14 Upon discovery of Treasure CA will notify the client and the curator immediately. CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein. Findings will be reported to the coroner within 14 days.

5. STAFF AND TIMETABLE

- 5.1 This project will be under the management of Stuart Joyce, MCIfA, Project Manager, CA.
- 5.2 The staffing structure will be organised thus: the Project Manager will direct the overall conduct of the evaluation as required during the period of fieldwork. Day to day responsibility however will rest with the Project Leader who will be on-site throughout the project.

- 5.3 The structure of the field team will be defined once the scope of works has been established.
- 5.4 The duration of the project and subsequent reporting will be defined once the scope works has been established by the HCCHEA.
- 5.5 Specialists who will be invited to advise and report on specific aspects of the project as necessary are:

Ceramics	Ed McSloy MCIfA (CA) Pete Banks (CA) Ioannis Smyranios (CA)
Metalwork	Ed McSloy MCIfA (CA)
Flint	Jacky Sommerville PCIfA (CA)
Animal Bone	Andy Clarke BA (Hons) MA (CA)/ Matty Holmes BSc MSc ACIfA (freelance)
Human Bone	Sharon Clough MCIfA (CA)
Environmental Remains	Sarah Wyles PCIfA (CA) Emma Aitken (CA)
Conservation	Pieta Greeves BSc MSc ACR (Drakon Heritage and Conservation)
Geoarchaeology	Dr Keith Wilkinson (ARCA)
Building Recording	Peter Davenport MCIfA, FSA (CA) Dr Peter Boyer (CA)

- 5.6 Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult other specialists not listed here. A full list of specialists currently used by Cotswold Archaeology is contained within Appendix A.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

- 6.1 Following completion of fieldwork, all artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with CA Technical Manuals and Welwyn Hatfield Museum Service (WHMS) guidelines. A recommendation will be made regarding material deemed suitable for disposal/dispersal in line with the relevant recipient Museums' collection policy.

6.2 A post-excavation assessment will be undertaken following completion of all site works. This will be prepared in accordance with the specification given in Appendices 4 and 5 of *Management of Archaeological Projects 2* (English Heritage 1991). Any variations to these post-excavation requirements will require the written approval of the HCCHEA. The post-excavation assessment report will include:

- (i) an abstract containing the essential elements of the results preceding the main body of the report and a summary of the project's background;
- (ii) description and illustration of the site location;
- (iii) a methodology of the works undertaken;
- (iv) include plans and reports of all documentary and other research undertaken;
- (v) a description of the project's results;
- (vi) an interpretation of the results in the appropriate context;
- (vii) a summary of the contents of the project archive and its location (including summary catalogues of finds and samples);
- (viii) a site location plan at an appropriate scale on an Ordnance Survey, or equivalent, base-map;
- (ix) a plan showing the location of the trenches and exposed archaeological features and deposits in relation to the site boundaries;
- (x) plans of each trench, or part of trench, in which archaeological features are recognised. These will be at an appropriate scale to allow the nature of the features exposed to be shown and understood. Plans will show the orientation of trenches in relation to north. Section drawing locations will be shown on these plans. Archaeologically sterile areas will not be illustrated unless this can provide information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;
- (xi) appropriate section drawings of trenches and features will be included, with OD heights and at scales appropriate to the stratigraphic detail being represented. These will show the orientation of the drawing in relation to north/south/east/west. Archaeologically sterile trenches will not be illustrated unless they provide significant information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;
- (xii) site matrices, if appropriate;
- (xiii) photographs showing significant features and deposits that are referred to in the text. All photographs will contain appropriate scales, the size of which will be noted in the illustration's caption;

- (xiv) a consideration of evidence within its wider local/regional context;
- (xv) a summary table and descriptive text showing the features, classes and numbers of artefacts recovered and soil profiles with interpretation;
- (xvi) specialist assessment or analysis reports where undertaken;
- (xvii) an evaluation of the methodology employed and the results obtained (i.e. a confidence rating).

6.3 Specialist artefact and palaeoenvironmental assessment will take into account the wider local/regional context of the archaeology and will include:

- (i) specialist aims and objectives
- (ii) processing methodologies (where relevant)
- (iii) any known biases in recovery, or problems of contamination/residuality
- (iv) quantity of material; types of material present; distribution of material
- (v) for environmental material, a statement on abundance, diversity and preservation
- (vi) summary and discussion of the results to include significance in a local and regional context

6.4 Copies of the draft post-excavation assessment report will be distributed to the Client or their Representative and to the LPA's Archaeological Advisor thereafter for verification and approval. Thereafter, copies of the approved report will be issued to the Client, LPA's Archaeological Advisor and the local Historic Environment Record (HER). Reports will be issued in digital format (PDF/PDFA as appropriate) except where hard copies have been specifically requested, and will be supplied to the HER along with shapefiles containing location data for the areas investigated, if required.

Academic dissemination

6.5 Should the post-excavation assessment identify the potential for further analysis, an updated project design will be prepared for agreement by the HCCHEA prior to the commencement of the detailed analysis and reporting. Arrangements will be made for an appropriate level of academic publication of the results of the excavations. A summary report will also be published in the (e.g. *Proceedings of the Prehistoric Society*).

6.6 Copies of any reports arising from the fieldwork will be deposited with the Hertfordshire Historic Environment Record (HER). A summary of information from

the project will also be entered onto the OASIS online database of archaeological projects in Britain, including the upload of a digital (PDF) copy of the final report, which will appear on the Archaeology Data Service (ADS) website once the OASIS record has been verified.

Public dissemination

- 6.7 In addition to the ADS website, a digital (PDF) copy of the final report will also be made available for public viewing via Cotswold Archaeology's *Archaeological Reports Online* web page, generally within 12 months of completion of the project (<http://reports.cotswoldarchaeology.co.uk/>).

Archive preparation and deposition

- 6.8 An ordered, indexed, and internally consistent site archive will be prepared and deposited in accordance with *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Archaeological Archives Forum 2007).
- 6.9 CA will make arrangements with the WHMS for the deposition of the site archive and, subject to agreement with the legal landowner(s), the artefact collection. The WHMS will be consulted at this stage concerning their requirements and notified in advance of the expected time limits for deposition of the archive.

7. HEALTH, SAFETY AND ENVIRONMENT

- 7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation, CA Health and Safety and Environmental policies and the CA Safety, Health and Environmental Management System (SHE), as well as any Principal Contractor's policies or procedures. A site-specific Construction Phase Plan (form SHE 017) will be formulated prior to commencement of fieldwork.

8. INSURANCES

- 8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000.

9. MONITORING

- 9.1 Notification of the start of site works will be made to the HCCHEA so that there will be opportunities to visit the excavation and check on the quality and progress of the work.

10. QUALITY ASSURANCE

- 10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the *Code of Conduct* (ClfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (ClfA 2014). All CA Project Managers and Project Officers hold either full Member or Associate status within the ClfA.
- 10.2 CA operates an internal quality assurance system in the following manner. Projects are overseen by a Project Manager who is responsible for the quality of the project. The Project Manager reports to the Chief Executive who bears ultimate responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors, and in cases of dispute recourse may be made to the Chairman of the Board.

11. PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT

- 11.1 It is not envisaged that this project will afford opportunities for public engagement or participation during the course of the fieldwork. However, the results will be made publicly available on the ADS and Cotswold Archaeology websites, as set out in Section 6 above, in due course.

12. STAFF TRAINING AND CPD

- 12.1 CA has a fully documented mandatory Performance Management system for all staff which reviews personal performance, identifies areas for improvement, sets targets and ensures the provision of appropriate training within CA's adopted training policy. In addition, CA has developed an award-winning Career Development Programme for its staff, which ensures a consistent and high quality approach to the development of appropriate skills.

12.2 As part of the company's requirement for Continuing Professional Development, all members of staff are also required to maintain a Personal Development Plan and an associated log which is reviewed within the Performance Management system. All staff are subject to probationary periods on appointment, with monthly review; for site-based staff additional monthly Employee Performance Evaluations measure and record skills and identify training needs.

13. REFERENCES

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MOLA (Museum of London Archaeology) 2004 *Residential Development, Hatfield Aerodrome: A Post-excavation Assessment and Updated Project Design*, unpublished report

MOLA (Museum of London Archaeology) 2015 *Plot 5600 and Borrow Pit Area: A Post-excavation Assessment and Updated Project Design*, unpublished report

APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS***Ceramics***

Neolithic/Bronze Age	Ed McSloy BA MCIFA (CA) Emily Edwards (freelance) Dr Elaine Morris BA PhD FSA MCIFA (University of Southampton)
Iron Age/Roman (Samian) (Amphorae stamps)	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Gwladys Montell MA PhD (freelance) Dr David Williams PhD FSA (freelance)
Anglo-Saxon	Paul Blinkhorn BTEch (freelance) Dr Jane Timby BA PhD FSA MCIFA (freelance)
Medieval/post-medieval	Ed McSloy BA MCIFA (CA) Kayt Marter Brown BA MSc MCIFA (freelance) Stephanie Ratkai BA (freelance) Paul Blinkhorn BTEch (freelance) John Allan BA MPhil FSA (freelance)
South West	Henrietta Quinnell BA FSA MCIFA (University of Exeter)
Clay tobacco pipe	Reg Jackson MLitt MCIFA (freelance) Marek Lewcun (freelance)
Ceramic Building Material	Ed McSloy MCIFA (CA) Dr Peter Warry PhD (freelance)

Other Finds

Small Finds	Ed McSloy BA MCIFA (CA)
Metal Artefacts	Katie Marsden BSc (CA) Dr Jörn Schuster MA DPhil FSA MCIFA (freelance) Dr Hilary Cool BA PhD FSA (freelance)
Lithics (Palaeolithic)	Ed McSloy BA MCIFA (CA) Jacky Sommerville BSc MA PCIFA (CA) Dr Francis Wenban-Smith BA MA PhD (University of Southampton)
Worked Stone	Dr Ruth Shaffrey BA PhD MCIFA (freelance) Dr Kevin Hayward FSA BSc MSc PhD PCIFA (freelance)
Inscriptions	Dr Roger Tomlin MA DPhil, FSA (Oxford)
Glass	Ed McSloy MCIFA (CA) Dr Hilary Cool BA PhD FSA (freelance) Dr David Dungworth BA PhD (freelance; English Heritage)
Coins	Ed McSloy BA MCIFA (CA) Dr Peter Guest BA PhD FSA (Cardiff University) Dr Richard Reece BSc PhD FSA (freelance)
Leather	Quita Mould MA FSA (freelance)
Textiles	Penelope Walton Rogers FSA Dip Acc. (freelance)
Iron slag/metal technology	Dr Tim Young MA PhD (Cardiff University) Dr David Starley BSc PhD
Worked wood	Michael Bamforth BSc MCIFA (freelance)

Biological Remains

Animal bone	Dr Philip Armitage MSc PhD MCIFA (freelance) Dr Matilda Holmes BSc MSc ACIFA (freelance)
Human Bone	Sharon Clough BA MSc MCIFA (CA)
Environmental sampling	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA) Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Pollen	Dr Michael Grant BSc MSc PhD (University of Southampton) Dr Rob Batchelor BSc MSc PhD MCIFA (QUEST, University of Reading)
Diatoms	Dr Tom Hill BSc PhD CPLHE (Natural History Museum) Dr Nigel Cameron BSc MSc PhD (University College London)
Charred Plant Remains	Sarah Wyles BA PCIFA (CA) Sarah Cobain BSc MSc ACIFA (CA)
Wood/Charcoal	Sarah Cobain BSc MSc ACIFA(CA) Dana Challinor MA (freelance)
Insects	Enid Allison BSc D.Phil (Canterbury Archaeological Trust) Dr David Smith MA PhD (University of Birmingham)
Mollusca	Sarah Wyles BA PCIFA (CA) Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Ostracods and Foraminifera	Dr John Whittaker BSc PhD (freelance)
Fish bones	Dr Philip Armitage MSc PhD MCIFA (freelance)
Geoarchaeology	Dr Keith Wilkinson BSc PhD MCIFA (ARCA)
Soil micromorphology	Dr Richard Macphail BSc MSc PhD (University College London)
Scientific Dating	
Dendrochronology	Robert Howard BA (NTRDL Nottingham)
Radiocarbon dating	SUERC (East Kilbride, Scotland) Beta Analytic (Florida, USA)
Archaeomagnetic dating	Dr Cathy Batt BSc PhD (University of Bradford)
TL/OSL Dating	Dr Phil Toms BSc PhD (University of Gloucestershire)
Conservation	Karen Barker BSc (freelance) Pieta Greaves BSc MSc ACR (Drakon Heritage and Conservation)

APPENDIX B: ARCHAEOLOGICAL STANDARDS AND GUIDELINES

- AAF 2007 *Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation.* Archaeological Archives Forum
- AAI&S 1988 *The Illustration of Lithic Artifacts: A guide to drawing stone tools for specialist reports.* Association of Archaeological Illustrators and Surveyors Paper 9
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- ClfA, 2014, *Standard and Guidance for Archaeological Watching Brief.* Chartered Institute for Archaeologists (Reading)
- ClfA, 2014, *Standard and Guidance for Archaeological Excavation.* Chartered Institute for Archaeologists (Reading)
- ClfA, 2014, *Standard and Guidance for Archaeological Investigation and Recording of Standing Buildings or Structures.* Chartered Institute for Archaeologists (Reading)
- ClfA, 2014, *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.* Chartered Institute for Archaeologists (Reading)
- ClfA, 2014, *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives.* Chartered Institute for Archaeologists (Reading)
- ClfA, 2014, *Standard and Guidance for Archaeological Field Evaluation.* Chartered Institute for Archaeologists (Reading)
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- EH 2004a *Dendrochronology. Guidelines on producing and interpreting dendrochronological dates*. English Heritage (Swindon)
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- EH 2006b *Archaeomagnetic Dating*. English Heritage (Swindon)
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- EH 2007b *Geoarchaeology. Using earth sciences to understand the archaeological record*. (London)
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- EH 2008b *Geophysical Survey in Archaeological Field Evaluation. English Heritage Research and Professional Services Guidelines No 1* (second edition). English Heritage (Swindon)
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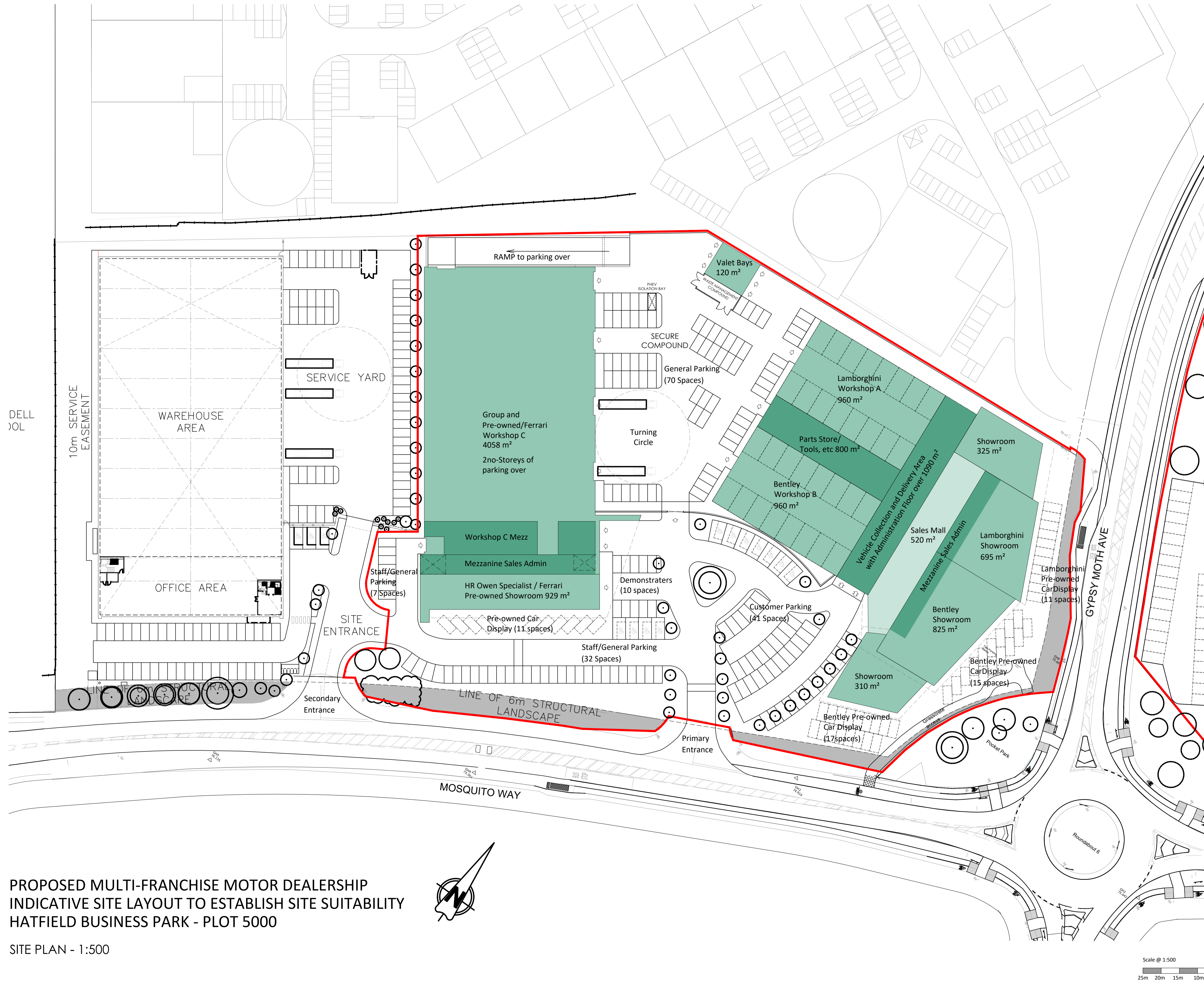
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This scheme is subject to Town Planning and all other necessary consents. Dimensions, areas and levels where given are only approximate and subject to site survey. All dimensions are to be checked on site. All feasibility studies are subject to full site survey. This drawing is to be read in conjunction with all relevant consultants and/or specialist drawings/documents and any discrepancies or variations are to be notified to the architect in writing before the affected work commences. All queries relating to design of structural elements are to be referred to the structural engineering consultant for resolution. The workmanship and materials of all trades and building operations shall comply with the recommendations of British Standards (BS) 800 parts 1-16 inclusive and with Approved Document to support Regulation 7 1999 edition (incorporating 2000 amendments) of the Building Regulations 2010. All design and construction is to be in accordance with the Construction (Design and Management) Regulations 2015.

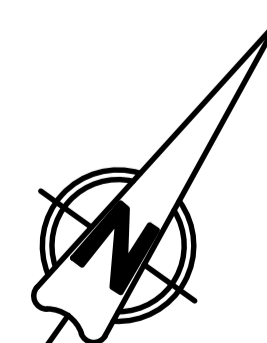
Rev	Date	Description	By
A	13.06.2018	Floor Areas Scheduled by Use Classes	A
C	24.09.2018	General client amendments incorporated into layout and valet building added.	MRW
D	12.10.2018	PHEV bay and waste management compound added	RGH
E	12.11.2018	Head office moved to admin, Additional Showroom substituted. Ferrari Showroom and workshop revised Parking and Customer Forecourt Revised	RGH
F	20.11.2018	Parking layout and landscaping revised. Showroom areas revised. Admin space consolidated.	RGH

Site Area	22,115 m ² (5.46 Acres)*	
PLANNING USE CLASS	sui generis	B1 B2
Ground Floor		
Ferrari Showroom	753 m ²	
Unallocated Showroom	310 m ²	
Bentley Showroom	700 m ²	
Lamborghini Showroom	570 m ²	
Unallocated Showroom	325 m ²	
Shared Mall Space	520 m ²	
Collection/Delivery Area		510 m ²
Workshop A		960 m ²
Workshop B		960 m ²
Parts (Shared Store)		400 m ²
Valet Building		120 m ²
Workshop C		3,708 m ²
Sub-Total	9,836 m²	
First Floor		
Ferrari Showroom Mezz	176 m ²	
Bentley Showroom Mezzanine	125 m ²	
Lamborghini Showroom Mezz	125 m ²	
Administration Wing		580 m ²
Parts (Shared Store)		400 m ²
Workshop C Mezzanine		350 m ²
Preowned Showroom	600 m ²	
Sub-Total	2,356 m²	
Roof parking level 1		3,842 m²
Roof parking level 2		4,441 m²
Total GEA by Use Class	4,204 m²	580 m² 15,691 m²
Total GEA	20,475 m²	
External Works	12,279 m² *	
Car Parking (Ground level)	159 spaces	
Display Parking	55+ spaces	
Secure Car Storage Level 1	100+ spaces - (3mx6m)	
Secure Car Storage Level 2	137+ spaces - (3mx6m)	
Building Coverage	9,836 Approx. 44% of site *	

*Includes Structured Landscaping Belt.



PROPOSED MULTI-FRANCHISE MOTOR DEALERSHIP
INDICATIVE SITE LAYOUT TO ESTABLISH SITE SUITABILITY
HATFIELD BUSINESS PARK - PLOT 5000

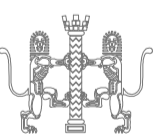


SITE PLAN - 1:500

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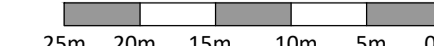
Client
HR Owen Plc

Project
HATFIELD BUSINESS PARK

Drawing Title
OVERALL SITE PLAN

Drawn	Date	Checked	Scale @ A1
RGH	June 2018		1:500
Job No	Drawing No	Revision	Note
2018-22	S-001	F	DO NOT SCALE

Scale @ 1:500



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