

WRITTEN SCHEME OF INVESTIGATION



Land at Milksey Lane Graveley Hertfordshire

Archaeological Open Area Excavation

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This document has been prepared in accordance with CFA Archaeology Ltd
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**Land at Milksey Lane
Graveley
Hertfordshire**

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Written Scheme of Investigation

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1 Introduction

- 1.1 This Written Scheme of Investigation (WSI), prepared by CFA Archaeology, was commissioned by Orion Heritage on behalf of Gade Homes to outline the details of archaeological mitigation to be undertaken on Land at Milksey Way, Graveley, Hertfordshire, hereafter the 'Site'.
- 1.2 The archaeological open area excavation outlined in the WSI is to be carried out as part of a planning application for a residential development, including associated services and access installation, at the Site. The archaeological excavation outlined in this WSI is proposed to investigate the character, extent, date, and condition of surviving archaeological deposits within a mitigation area located within the western half of the Site.
- 1.3 The excavation follows, and has been informed by, an earlier archaeological evaluation (trial trenching) of the Site undertaken by Cotswold Archaeology in April 2022 (see Section 4 below). The evaluation recorded the remains of a possible Roman road within the western part of the Site (see Section 4 below), where the present archaeological works are to be concentrated. The results of the earlier evaluation were determined to warrant further archaeological mitigation by Hertfordshire Historic Environment Advisor.
- 1.4 In line with the above, this WSI relates to the archaeological excavation only. Following approval, the programme of works set out in this document will be undertaken and the results of the work used to inform the planning authority regarding any further mitigation works at the Site.

2 Site Background

- 2.1 The Site comprises a single heavily-overgrown field of irregular shape, formerly in use as part of the grounds of Graveley House. To the north, east, and south, the Site is bordered by the residential development of Graveley, with arable farmland stretching toward the A1 at the west. Four spoil heaps composed of soil, masonry, timber, and scrap are extant within the Site's eastern half, having been deposited during local demolition works.
- 2.2 The British Geological Survey records the bedrock geological profile of the Site to comprise chalk of the New Pit Chalk Formation (BGS 2026). Superficial geological deposits on the Site are predominantly Diamicton of the Lowestoft Formation, a mixture of chalk, sand, and silt, with a band of glaciofluvial sand and gravel running along the western border of the Site, where the mitigation area is to be concentrated.
- 2.3 The overlying soils are a lime-rich loam and clay, typical of landscapes characterised by chalky geologies (Landis 2026).

3 Historic and Archaeological Background

- 3.1 A full Archaeological Desk-Based Assessment of the Site has been prepared by Orion Heritage (2021). A brief account of the archaeological and historical background of the Site is provided below. Numbers in parentheses indicate entries in Hertfordshire Historic Environment Record (HHER) and Historic England National Heritage List for England (NHLE).

Prehistoric

- 3.2 The remains of a round barrow (**MHT2887**) containing human remains were recorded to the northeast, toward Weston, while a second possible barrow (**MHT4441**), this time represented by cropmark evidence, was identified at a shorter distance to the northeast. Both have been categorised as late Neolithic to Bronze Age remains.
- 3.3 Prehistoric flint flakes (**MHT6651**, **MHT6653**), some of which had been repurposed into scrapers or other cutting tools, were recovered to the west and southwest of the Site, adjacent to the A1. The nearest of these (**MHT6653**) was found within 200 m of the Site's western border.

Iron Age to Romano-British

- 3.4 Two groups of enclosures with associated field systems (**MHT40367**, **MHT31557**), indicating Iron age to Romano-British rural settlement, have been excavated to the southeast of the Site. Recovered finds and the extent of each settlement suggest lower-to-mid status farmsteads making use of local pottery and small-scale animal husbandry. A third, more speculative farmstead site (**MHT101**) has been suggested to lie approximately 250 m to the northwest of the Site, where a large assemblage of Roman pottery, animal bone, tile, slate, stone, and other building materials were recovered during field walking. Further examples of Iron Age and Roman (**MHT6654**) pottery have been recovered south of the possible farmstead, to the west of the Site on the other side of the A1.
- 3.5 The most numerous remains of Iron Age to Romano-British date recorded in the area represent sections of one or more Roman roads. Of these, one group (**MHT2065**, **MHT4632**, **MHT4635**) has been recorded further north of the Site, along the modern B197 Road. Other sections have been recorded to the immediate southwest of the Site (**MHT40368**), within 100 m of its border, and within the Site itself (**MHT40369**).
- 3.6 The section of Roman road within the Site has been identified as part of 'Viatores Route 221', elements of which have been identified further north (**MHT2065**). Investigation of the remains within the Site recorded a metalled road surface, associated roadside ditches likely dug for drainage, and Iron Age pottery (see Section 4 below). Like the remains of the road to the southwest (**MHT40368**), the presence of Iron Age pottery may suggest that the road is late prehistoric in origin (Cotswold Archaeology 2022).

Medieval

- 3.7 Evidence for medieval activity near the Site includes the earthwork remains of house platforms and ridge and furrow farming (**MHT364**, **MHT4225**) thought to be associated with the shrunken village of Graveley (**MHT2691**), previously located to the southeast and east. Other remains similarly suggestive of settlement (**MHT17679**, **MHT1957**) have been recorded to the west, near the site of the former Wymondley Priory.
- 3.8 Medieval pottery (**MHT1521**, **MHT1774**, **MHT4533**) has been recovered to the west and southwest of the Site.

Post-Medieval

- 3.9 Post-medieval remains are largely restricted to listed private residences (e.g. **1102532**, **1175027**, **1175053**) generally dating to between the 17th to 19th-centuries, and concentrated to the southeast, in Graveley. Of these, the closest is the 16th- to 17th century Grade II Listed Fife House (**1102533**), which is located within 100 m of the Site's south-eastern border.

Unknown

- 3.10 Several undated earthworks are visible as cropmarks on aerial photographs (e.g. **MHT6650**, **MHT4494**, **MHT4485**) taken to the west of the Site, on the other side of the A1. None of these possible earthworks lie within 500 m of the Site.

4 Previous Work

- 4.1 Following a walkover survey in 2021, Cotswold Archaeology undertook an archaeological evaluation (trial trenching) on the Site, comprising 12 trenches measuring 30 m by 1.8 m (Cotswold Archaeology 2022). The trenches were sited to investigate the course of a possible Roman road recorded in the HHER, confirm the character of anomalies visible on LiDAR imagery, and to provide a representative sample of the Site's archaeological character.
- 4.2 Archaeological features were recorded in four trenches, all of which were located in the western half of the Site (Figure 1). Evidence for a Roman road (**MHT40369**; 'Viatores 221') was identified in all four trenches, with the road running on a northeast to southwest orientation. Two associated roadside ditches were recorded to have been cut directly into the road, and were consequently interpreted as later drainage features. Iron Age pottery was recovered from the road construction layer, potentially indicating an earlier prehistoric trackway over which the later metalled road was constructed.
- 4.3 A palaeochannel which produced prehistoric flint was also recorded, as were post-medieval to modern field boundaries – both to the east of the Site, outwith the current

mitigation area. Recovered finds included the aforementioned Iron Age pottery, possible Roman CBM, worked flint, a glass bead, handmade nails, and Roman coinage.

5 Project Objectives

5.1 The aims of the open area excavation are:

- To further investigate the form, function, and spatial arrangement of the archaeological features identified within the Site, and any other below-ground archaeological remains as yet unrecorded;
- To recover dating evidence from the archaeological features where practicable; and
- To establish the sequence of archaeological remains present on the Site.

5.2 Based on the above historic and archaeological background, and the following research objectives have been identified using the *East of England Historic Regional Research Framework* (Research Frameworks 2026):

- LIA-Rom 10: Can we map the development of Late Iron Age and Roman roads?
- LIA-Rom 13: How can we increase our understanding of Late Iron Age and Roman farmsteads?
- LIA-Rom 14: How can we improve the environmental sampling of Late Iron Age and Roman farmsteads?
- LIA-Rom 16: Can we better distinguish between Late Iron Age and Early Roman features and sites?

6 Archaeological Methodology

General

- 6.1 CFA Archaeology is a registered organisation with the Chartered Institute for Archaeologists (CIfA). Work will be conducted with regard to the Institute's standards documents (CIfA 2020a-c), relevant Historic England guidance documents (Historic England 2011, 2015a, and 2015b), and this WSI. Recording of all elements will follow established CFA procedures.
- 6.2 Should there be unexpected significant or complex discoveries that warrant more detailed recording than is described in this WSI, the archaeological contractor, CFA Archaeology Ltd, will contact the Hertfordshire Historic Environment Advisor so that an agreement can be reached on the implementation of any variations to the proposed scope of works.
- 6.3 The open excavation area will be scanned by a competent person using a Cable Avoidance Tool (CAT) prior to mechanical excavation. All necessary measures to avoid services will be undertaken.
- 6.4 A visual inspection of the Site will be undertaken before the commencement of works to identify any surface features of potential archaeological interest, areas of potentially

significant disturbance, and any hazards or constraints in undertaking further archaeological work. The presence of contaminated ground (spoil heaps) deriving from earlier demolition works has been noted at the east of the Site and will be taken into account when determining site access, the movement of construction equipment, and soil deposition (see also Paragraph 8.9 below). Tree Protection Orders (TPO) for existing trees on site are also in place, and these will be demarcated ahead of the excavation to avoid any plant movement within them during the works.

Archaeological Mitigation

- 6.5 One area has been identified for open area excavation ('mitigation area' on Figure 1). Table 1 below summarises this area, its size, and its archaeological target.

Area No.	Size (m2)	Target
1	4,185	A band encompassing the western part of the Site, in which archaeological remains relating to the course of a possible Roman road were recorded in 2022 (see Section 4 above). The area has been subdivided to account for the presence of local vegetation subject to a Tree Preservation Order (TPO).

Table 1: Area of Archaeological Interest

- 6.6 The area will be stripped with a mechanical excavator fitted with toothless bucket, operated under direct archaeological supervision. Topsoil and subsoil will be removed to the level of the natural substrate or the first significant archaeological horizon, whichever is reached first, in successive level spits of a maximum 0.2 m thickness. Machine excavation will be halted if archaeological deposits are encountered, and any further excavation required to fulfil the objectives of the mitigation will be carried out by hand, unless otherwise agreed with the Hertfordshire Historic Environment Advisor. Once the mitigation area has been fully exposed, the excavation of all identified archaeological features will be undertaken in line with the sampling strategy laid out below.
- 6.7 Excavation of any archaeological remains encountered on the Site will be subject to the following strategy:
- Linear features will have a minimum 20% sample excavated, with each section being a minimum of 1 m in size. All intersections will be investigated to determine the relationships between component features, and all termini will be investigated.
 - Discrete features, including stake-holes, post-holes, pits, ring ditches, kilns, and other structural, funerary, and industrial features will be excavated at 50% in the first instance, recorded in section, and then fully excavated where deemed necessary. All intersections will be investigated to determine the relationships between features.

- Where present, built structures, such as walls and floors, will be excavated and recorded to establish form, phasing, and construction techniques. All intersections will be investigated to determine the relationships between features.

6.8 All excavation will be undertaken by hand unless circumstances require the use of a mechanical excavator to fulfil the scope of works outlined in this WSI. The use of excavation plant within the excavation area following soil strip will be confirmed and agreed prior to use with the Hertfordshire Historic Environment Advisor. Situations where this may be required include:

- Where sterile or natural deposits are determined to overly archaeological features.
- Where large archaeological features extend to a depth at which hand-excavation would be unsafe.

6.9 Particular interest concerns the line of the Roman road identified during the evaluation phase of the project. Once exposed, the extent of the road will be cleaned, including any associated features such as roadside ditches. Hand-dug sections across these features will then be excavated at points agreed in advance with the Hertfordshire Historic Environment Advisor to fully capture the profile and to determine the preservation of the road and associated features. A plan showing the proposed locations of these sections can be seen in Fig. 1, although these may be subject to slight changes due to any obstructions or updated information which comes to light post site strip. Any such deviations will be agreed with the Hertfordshire Historic Environment Advisory Service (HHEAS).

6.10 Samples of all features of archaeological interest will be hand-excavated in an archaeologically controlled and stratigraphic manner to establish date, nature, extent, and condition. The complete stratigraphic sequence, down to natural geological deposits, will be excavated and all interrelationships and intersections between features will be investigated.

6.11 Should features of archaeological interest extend beyond the limits of the initial excavation area, excavation work beyond the identified area may be required to record the full extents of any features in plan, and to enable sufficient sampling of features as set out above. Any such extension to the original excavation area would be discussed and agreed with the Hertfordshire Historic Environment Advisor in advance, and any archaeological features identified would be subject to the excavation sampling strategy outlined above.

Method of Recording

6.12 All excavation and on-site recording will be carried out according to standard CFA procedures, principally by drawing, photography, and completion of standard CFA record forms.

- 6.13 The location of the archaeological remains will be recorded using industry standard surveying equipment and tied to the National Grid. If, for any reason, this is not possible, locations will be measured and planned accurately using technical drawings tied to appropriate landmarks. Vertical survey control will be tied to the Ordnance Survey Datum, where appropriate.
- 6.14 Sections will be recorded by means of measured drawings prepared at an appropriate scale, typically 1:10. The height of a datum on the drawing will be calculated and recorded, and the locations of sections will be recorded on site plans. Cut features will be recorded in profile, planned at an appropriate scale (normally 1:20), and their locations accurately identified on an appropriate plan.
- 6.15 Photographs will include an appropriate scale, an arrow to indicate the north, and a photo information board. All photographs will be recorded on a photographic register detailing subject, location, and direction of shot. Photographs taken will adhere to Historic England's guidance 'Digital Image Capture and File Storage' (Historic England, 2015a). Photographs will be taken at the highest quality setting, with a high-resolution digital SLR camera with sensors exceeding 12 Mega pixels. Photographs will be stored in both JPEG and RAW formats, with embedded metadata to include: the name and NGR of the site; the date, subject, and direction of the shot; and reference to the author (CFA Archaeology Ltd).

Artefact and Environmental Recovery

- 6.16 Spoil heaps deposited during excavation will be scanned for ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by a capable metal detectorist.
- 6.17 All artefacts will be retained for processing and analysis except for unstratified 20th- and 21st-century material, which will be noted and discarded. All finds will be appropriately handled during the excavation stage, and will be stored in secure, appropriate conditions following the guidelines in *First Aid for Finds* (3rd edition).
- 6.23 If any finds are uncovered which fall under the purview of the Treasure Act 1996, the terms of the Act will be followed. Finds to which the Act applies will be removed to a safe place and reported to the local coroner. Where removal cannot be effected on the same day as discovery, suitable security measures will be taken to protect the finds from theft.
- 6.18 CFA's Palaeoenvironmental specialist will assess the environmental potential of the Site; advise on whether any deposits have potential for conducting palaeobotanical or other soil analysis; and assess the potential for the preservation of faunal remains.
- 6.19 Environmental sampling will be carried out in accordance with current guidelines (Historic England 2011), with bulk samples taken from all securely stratified deposits. Samples will consist of 40 litres of environmental material recovered (at a minimum)

from the basal deposits of any archaeological features. Environmental samples will not usually be recovered from intersections or unclear relationship sample sections.

Human Remains

- 6.20 The Ministry of Justice and Hertfordshire Historic Environment Advisor will be informed if human remains are found. The contractor will comply with all statutory consents and licences under the Disused Burial Grounds (Amendment) Act 1981, or other burial acts regarding the exhumation and interment of human remains.
- 6.21 If human remains are encountered, they will be cleaned with minimal disturbance prior to recording and removal, following receipt of the required Ministry of Justice licence. Investigation and excavation of human remains will be undertaken by, or under supervision of, suitably experienced specialist staff. Excavation of human remains will be undertaken in accordance with the *Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains* (McKinley and Roberts 1993) and the *Updated Guidelines to the standards for recording human remains* (Mitchell and Brickley 2017).
- 6.22 Where required, assessment of excavated human remains will be undertaken in line with English Heritage guidelines *Human Bones from archaeological sites: Guidelines for the production of assessment documents and analytical reports* (English Heritage 2004). The archaeological contractor will comply with all reasonable requests of interested parties as to the method of removal, re-interment, or disposal of the remains and any associated items. Every effort will be made, at all times, to avoid offence to any interested parties.
- 6.23 If required, a qualified and experienced osteoarchaeologist will undertake site visits to discuss the recording and assist in the removal of any human skeletal remains.

7 Finds Analysis, Reporting, and Archiving

Finds Analysis

- 7.1 Where appropriate, all finds will be retained, washed, and assessed in accordance with accepted professional standards. For all categories of material recovered, including both hand-recovered finds and palaeoenvironmental, industrial, and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken. Samples will be processed and sorted, and any artefacts recovered from the sampling process will be provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists.
- 7.1.1 All finds will be treated in accordance with current best-practice guidance (Campbell et al. 2011). Finds will be cleaned and marked according to accepted principles and appropriate guidelines as per their periodisation and material.

- 7.2 For ceramic assemblages, recording shall be carried out in a manner compatible with existing typological series in local pottery reference collections. The guidelines for handling Post-Roman Ceramics produced by the Medieval Pottery Research Group will be followed for relevant material (MPRG 2001).
- 7.3 Environmental samples will be processed to aid in the recovery of artefactual material, including ceramics, animal and fish bones, human remains, industrial residues, charcoal, and mineralised plant remains. Specialist flint samples such as monoliths or cores will be processed separately, as appropriate.
- 7.4 Where material suitable for scientific dating is recovered, such as charcoal or bone, sufficient dating will be undertaken to meet the aims of the excavation. These materials will be identified by type/species and assessed for suitability prior to submission to a dating laboratory.
- 7.5 Artefact assessment reports will include the production of a descriptive catalogue including a quantification of finds by context, and a discussion or interpretation where appropriate. Finds critical for dating or interpretation of archaeological activity on the Site will be illustrated or digitally photographed. Environmental assessment reports will include the identification of the remains, quantification by context, a proportionate discussion, and a description of the processing methodology.

Reporting

- 7.6 A report will be produced which includes background information on the project, a description of the mitigation methodology, and a full description and interpretation of the results.
- 7.7 Specifically, the report will contain:
- A concise non-technical summary of the project results;
 - The site location given as an 8-figure grid reference;
 - A front cover/frontispiece which includes the planning application number and the national grid reference of the excavation site;
 - Site address, site code, accession number, author/originating body;
 - Phoenix Consulting Archaeology 's details;
 - The dates on which the work was undertaken;
 - A description of the site location, topography and geology;
 - A description of the historic and archaeological background of the site;
 - An explanation of any agreed variations from the WSI, including justification for any work not undertaken;
 - A description of the methodology employed, work undertaken, and the results obtained.
 - Contexts and feature descriptions;
 - An assessment of the stratigraphic evidence;
 - Maps and other illustrations at an appropriate scale including all both the mitigation area plans and watching brief area plans with detailed plans of all

excavated features; Plans should include sufficient grid references to allow them to be geo-rectified

- A specialist analysis report for all finds materials including palaeoenvironmental and other samples;
- A description of any environmental or other specialist work undertaken and outline of the results obtained;
- Interpretation of the contexts and features identified, and their wider context within the landscape, local and regional contexts, including the known archaeological information located within Hertfordshire HER;
- A selection of photographs of work in progress;
- A sample of excavation and watching brief photographs;
- An appropriate sample of photographs of the archaeological features;
- A discussion of how the work contributed to the aims and objectives set out in the project design;
- An assessment of the archaeological potential of the stratigraphic, artefactual and environmental evidence;
- A conclusion;
- A bibliography;
- A context index;
- An archive index;
- A Hertfordshire Historic Environment Record summary sheet
- An OASIS summary sheet

7.8 A draft copy of the report will be issued to the Hertfordshire Historic Environment Advisor for comment before being finalised. One digital copy (PDF-A format), and one unbound hard copy of the final report will be deposited with an appropriate museum within a suitable timescale following the completion of fieldwork. This will ensure that the report is made available as a public document as part of the HHER.

7.9 If significant remains are encountered, arrangements will be made for the publication of results within an appropriate journal.

Archiving

7.10 The archive will be prepared in accordance with the current ClfA guidelines (ClfA 2020c). The selection/retention of material from the archaeological excavation will be agreed by the appropriate finds specialists, the Hertfordshire Historic Environment Advisor, and the receiving repository.

7.11 An appropriate regional museum will be identified to accept the complete excavation archive, including primary site records, research archives, and finds. CFA Archaeology will prepare the excavation archive to meet the selected museum's deposition requirements.

7.12 Consent for full transfer of title of finds to the recipient museum will be agreed in principle with the landowner at the outset. Confirmation of transfer of title from the

landowner, and confirmation of assignment of copyright, along with a full archive inventory, will be submitted with a project completion form to the recipient museum.

- 7.13 CFA are ISO 9001 accredited, with all our internal archiving and digital record systems being fully compliant with ClfA Standards and Guidance, particularly the guidance on Planning and Data Management Plans for Archaeological Projects (2026). The digital archive will be subject to a selection process, depending on the results of the works, and the resulting digital archive will be deposited with the Archaeological Data Service (ADS). All digital deposition will be undertaken in line with guidance from ADS (2026) and ClfA (2020b).
- 7.14 The HHER will be provided with spatial data relating the archaeological excavation, and where possible its results, which will be submitted in a suitable GIS format.
- 7.15 An online OASIS form will be completed within three months of the completion of the work. An appropriately formatted copy of the report will also be uploaded to OASIS within three months of the completion of the work.
- 7.16 CFA are ISO 9001 accredited, with all our internal archiving and digital record systems being fully compliant with ClfA Standards and Guidance, particularly the guidance on Planning and Data Management Plans for Archaeological Projects (2022). The digital archive will be subject to a selection process, depending on the results of the works, and the resulting digital archive will be deposited with the Archaeological Data Service (ADS) and HHEAS. All creation digital deposition will be undertaken in line with guidance from ADS (2023), ClfA (2022) and Historic England (2015b).
- 7.17 CFA will produce a Digital Management Plan (Appendix 1), in line with the museum's digital deposition requirements (North Hertfordshire District Council Museums Service 2014), which will set out how the gathered digital data will be managed throughout the delivery of the project and what will happen with the archaeological data once the project is completed. This will include:
- Details of data that will be gathered;
 - Type of file formats to be used (e.g. .doc, .pdf, .dwg, .shp, etc.);
 - Methods of data collection or capture (e.g. GPS/Total Station/digitising from hard copies);
 - File naming conventions (e.g. ADS naming conventions);
 - Metadata, standards and quality assurance measures;
 - Plans for sharing data;
 - Ethical and legal issues or restrictions on data sharing (e.g. client confidentiality etc.);
 - Copyright and intellectual property rights of data;
 - Data storage and back-up measures;
 - Data management roles and responsibilities;
 - Costing or resources needed (ADS archiving costs etc.).

- 7.18 The digital archive will be produced using a clear file structure that allows for distribution with stakeholders and members of the public via Hertfordshire HER, and preservation in perpetuity.

8 Outreach and Public Engagement

- 8.1 The scope of outreach and public engagement will be determined in liaison with the HHEAS depending on the results of the open area excavation outlined in this WSI. Outreach activities may include:
- Lectures given by the archaeological contractor to the local archaeological and/or historical societies;
 - School visits to provide activities covering both general archaeological practice and the specific findings of the open area excavation;
 - Signage/information boards provided (where appropriate) at the perimeter of the Site; and
 - Dissemination of results via social-media posts, blogs entries, and website updates, undertaken by CFA's media and communications officer.

9 Resources and Programming

Key Personnel

- 9.1 **Phil Mann** (BA MCIfA) is Senior Project Manager for CFA Archaeology. Phil has project managed numerous archaeological projects of all periods throughout the country including those undertaken for large infrastructure projects.
- 9.2 A **Field Director** from CFA will be selected from CFA's pool of Field Officers, depending on availability, all of whom have appropriate experience. The CV for the selected Field Officer can be forwarded prior to the start of the project.
- 9.3 **Dr Shelly Werner** (BSc MPhil PhD) is CFA's Graphics Manager, responsible for the organisation and management of all GIS, CAD and Illustrative material. She is an experienced illustrator with specialist knowledge in GIS consultancy and standing building survey and has worked on a variety of projects in Scotland and England.
- 9.4 Post-excavation and environmental coordination will be managed by CFAs post excavation and archiving manager **Christina Hills**; CVs for CFA's 'in house' specialists or external consultants can be supplied on request.
- 9.5 *Project Specialists*

Specialism	Specialist
Archaeobotany	Mhairi Hastie BSc MSc ACIfA (CFA Archaeology)
Ceramic Building Material	Jamie Walker BSc MCIfA (CFA Archaeology)
Clay Pipes	Joshua Toulson BA MSc ACIfA (CFA Archaeology)

Conservation Laboratory	Morgan Creed (York Archaeological Trust)
Dendrochronology	Ian Tyers
Industrial Residue	David Dungworth
Leather	Quita Mould
Mollusca and Fish Remains	Joshua Toulson BA MSc ACIfA (CFA Archaeology)
Neolithic and Bronze Age Pottery	Alex Gibson PhD
Osteoarchaeology	Malin Holst MSc
Palynology	Robert McCulloch BA PhD (University of Stirling)
Post-medieval Small Finds	Gail Drinkall
Post-Roman Pottery	Chris Cumberpatch BA PhD
Roman and Pre-Roman Iron Age Pottery	Jamie Walker (CFA Archaeology) & Jane Timby
Roman Glass	Hilary Cool
Soil Micromorphology	Clare Ellis BA PhD MCIfA
Worked Bone	Joshua Toulson BA MSc ACIfA (CFA Archaeology)
Worked Flint and Stone	John Musgrove (CFA Archaeology) assisted by Ann Clarke

Table 2: List of Specialists

- 9.6 The above-named key personnel and specialists have extensive experience in managing and/or contributing to archaeological investigations in the Hertfordshire region. Most recently, this includes a largescale excavation which produced a cremation burial as well as large assemblages of prehistoric and Romano-British pottery, lithics, and animal bone, which were examined by the above in-house and external specialists (Griffiths and Bell 2025). Other recent examples include archaeological evaluations (e.g. Auricchio-Bund 2024 and Kirby 2024) and archaeological monitoring (e.g. Santinelli 2022).
- 9.7 It is expected that the above-named specialists will be used unless otherwise agreed in advance with the Hertfordshire Historic Environment Advisor.
- 9.8 The above list is not exhaustive. Should unusual or locally specific archaeological materials be discovered, appropriate specialists will be sought on the advice of the regional Historic England scientific advisor and/or the Hertfordshire Historic Environment Advisor.

Health and Safety

- 9.9 CFA has an ISO45001 certified health and safety management system. All CFA staff have been inducted into CFA's Health and Safety Policy and will operate with due regard for Health and Safety regulations. All work for the project will be subject to Risk Assessment procedures, and an appropriate Risk Assessment Method Statement (RAMS) will be produced, disseminated, and agreed with all staff on site.
- 9.10 Testing of one of the four soil and rubble heaps at the Site recorded lead and Speciated Polycyclic Aromatic Hydrocarbon (PAH) contamination, which was classified as a potential risk to human health (BRD 2021, 31). None of the heaps were recorded to be present in the mitigation area, and contaminated ground is consequently unlikely to represent a constraint to the archaeological works. The presence of the heaps will be

noted and assessed in the RAMS, however, and their locations will be taken into account when determining access arrangements, material storage, and general operations at the Site.

Monitoring

- 9.11 Close contact will be maintained with the client and the Hertfordshire Historic Environment Advisor for the purposes of monitoring the project. Important or unexpected discoveries will be communicated to them, and a monitoring visit will be arranged if appropriate. Any monitoring visit will include a site tour and overview by the senior archaeologist present. The opportunity will be afforded to view the excavation works, any artefactual finds still on site, and any records that are not in immediate use.
- 9.12 Any deficiencies noted during monitoring visits will be addressed to the satisfaction of the Hertfordshire Historic Environment Advisor by the next agreed site meeting.
- 9.13 The Hertfordshire Historic Environment Advisor will be provided with a minimum of one week's notice of the commencement of on-site works. Contact numbers for the site will be forwarded in advance of the work starting.

10 References

ADS, 2026, Archaeology Data Service, available at:
[https://archaeologydataservice.ac.uk/advice/DepositingData.xhtml#How%20to%20De
posit](https://archaeologydataservice.ac.uk/advice/DepositingData.xhtml#How%20to%20Deposit)

Auricchio-Bund, A 2024 *Land Between 14 Willow Corner and The Old Vicarage, Well Row, Bayford, East Hertfordshire: Archaeological Watching Brief*. CFA Archaeology, report no. 4423.

ClfA, 2020a, *Standard and Guidance for Archaeological Excavation* Chartered Institute for Archaeologists

ClfA, 2020b, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*, Chartered Institute for Archaeologists

ClfA 2020c *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, Chartered Institute for Archaeologists

ClfA 2022 *Code of Conduct: professional ethics in archaeology*. Reading: ClfA.

Cotswold Archaeology 2022 *Land at Milksey Lane, Graveley, Hertfordshire: Archaeological Evaluation*. Cotswold Archaeology Report No. MK0671_1

Griffiths, G and Bell, M 2025 *Land off Royston Road, Barkway, Hertfordshire: Archaeological Evaluation and Strip, Map and Record Excavation*. CFA Archaeology, report No. 4674

Historic England 2011 *Environmental Archaeology; A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*, Historic England, (2nd edition)

Historic England 2015a *Digital Image Capture and File Storage*, Historic England

Historic England, 2015b, *The Management of Research Projects in the Historic Environment (MoRPHE) Project Managers' Guide*, Historic England

Kirby, M 2022 *Land North of Malting Lane Braughing, Hertfordshire: Archaeological Evaluation*. CFA Archaeology, report no. MK239/22

McKinley J I and Roberts, C A 1993 *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains*. IFA Technical Paper 13. Reading

Mitchell, P D and Brickley M 2017 *Updated guidelines to the standards for recording human remains*

Redclift, B 2021 *Land at Milksey Lane, Graveley: Archaeological Desk-Based Assessment*. Orion Heritage, ref. PN3263/DBA/1

Santinelli, A 2022 *Land Between Legra Avenue and Conduit Lane (Stanborough Gardens), Hoddesdon, Hertfordshire: Archaeological Watching Brief*. CFA Archaeology, report no. MK237/22.

Online Sources

Archaeology Data Service (ADS) 2026 'Data Requirements'.
<https://archaeologydataservice.ac.uk/advice/DepositingData.xhtml#How%20to%20Deposit>

British Geological Survey (BGS), 2026, *Geology of Britain (viewer)*.
<https://mapapps.bgs.ac.uk/>

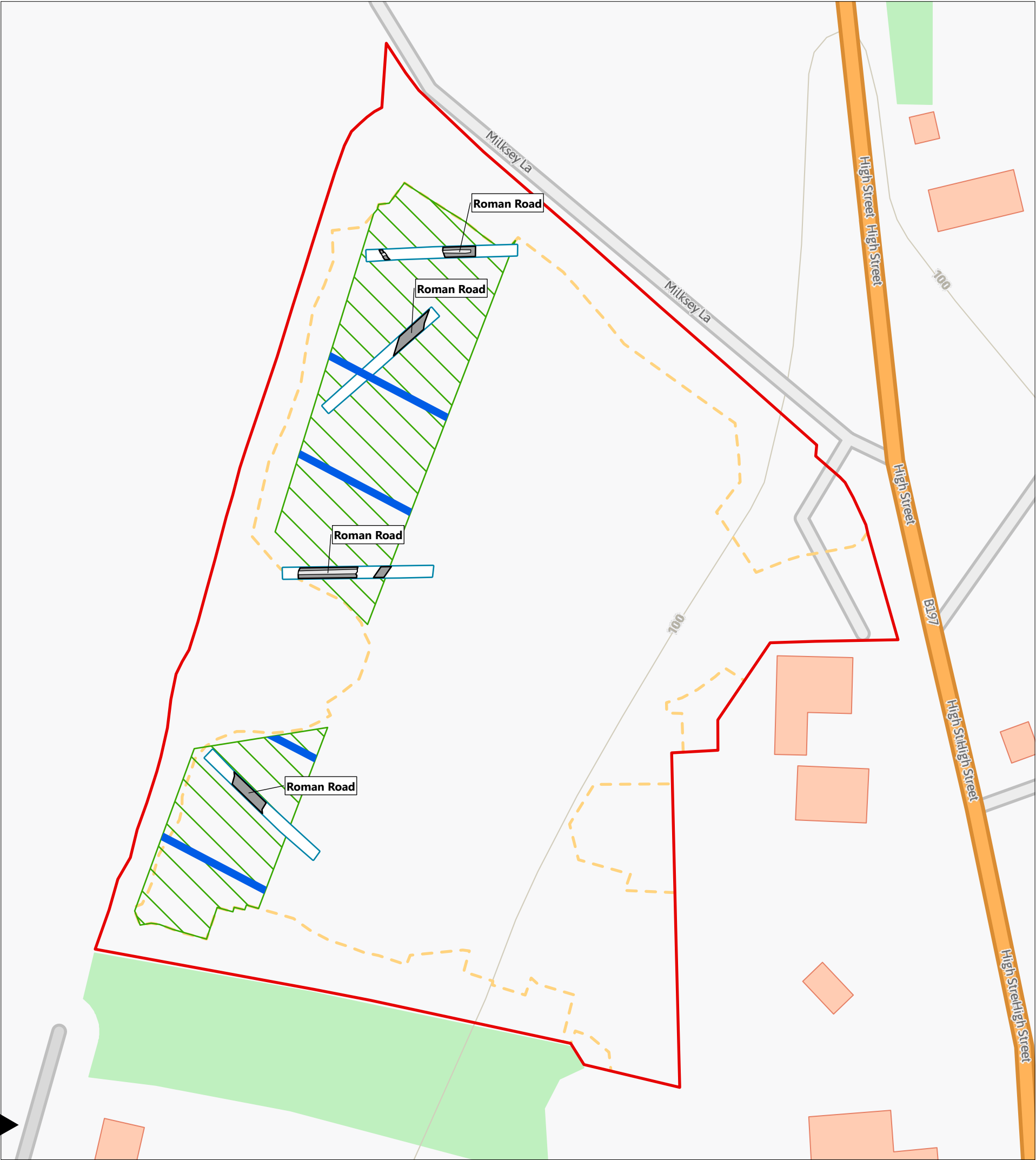
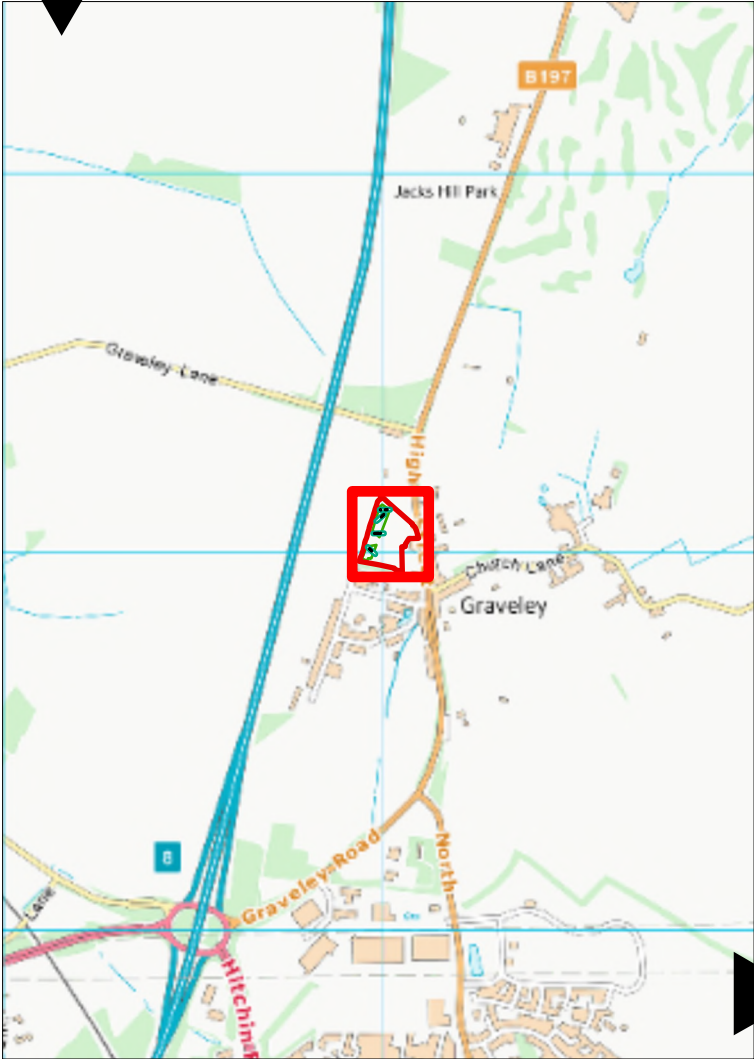
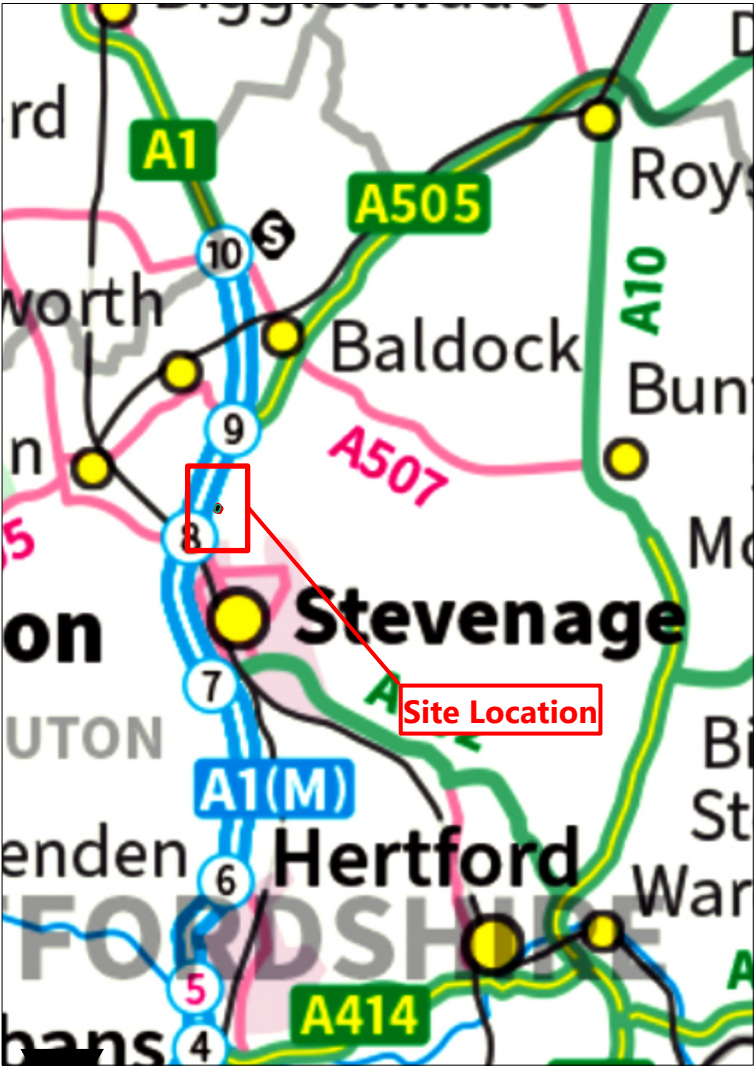
ClfA 2026, Data Management Plans. Reading: ClfA.
<https://www.archaeologists.net/work/toolkits/dig-digital/planning>

Historic England 2026 *Aerial Archaeology Mapping Viewer*.
<https://historicengland.maps.arcgis.com>

LandIS, 2026 *Cranfield Soil and Agrifood Institute Soilscales*.
<http://www.landis.org.uk/soilscales>

Regional Research Frameworks 2026 *East of England Research Framework*
<https://researchframeworks.org/eoe/research-agenda/>

Figures



Key:

- Site Boundary
- Mitigation Area
- Evaluation Trench (Cotswold 2022)
- Archaeological Feature: Excavated
- Archaeological Feature: Unexcavated
- Hand Dug Road Section
- Tree Preservation Order (TPO) Area

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CFA
ARCHAEOLOGY Ltd

Title:
Site Location and Mitigation Area

Project:
Land at Milksey, Graveley, Hertfordshire

Client:
Gade Homes

Scale at A3:
1:800

Drawn by: EM	Checked: SW	Date: 30/04/2026
Report No: WSI		Fig. No: 1

Appendix 1: Data Management Plan

Section 1: Project Administration

Project ID	
Internal CFA ID: MILK	
Project Name	
Land at Milksey Lane, Graveley, Hertfordshire	
Project Description	
Open Area Excavation of a 0.42ha area targeting the course of a possible Roman Road identified in previous archaeological trial trenching.	
Project Funder	Principal Investigator / Researcher
Orion Heritage on behalf of Gade Homes	CFA Archaeology Ltd
Project Manager	
Phil Mann BA MCIfA pmann@cfa-arch.co.uk	
Data Contact Person	
Christina Hills BA (Hons) ACIfA, Post Excavation and Archives Manager chills@cfa-arch.co.uk, 01875 515 425	
Date DMP created	Date DMP last updated
30/03/2026	30/03/2026
Version	
1	
Related data management policies	
CFA Quality Management Systems ISO 9001 accreditation	

Section 2: Data Collection

What data will you collect or create?		
Archaeological data will be collected to achieve the aims and objectives set out in the Written Scheme of Investigation (WSI). It is envisaged that the resultant digital archive will comprise, but not be limited to:		
Type	Format	Estimated Volume (Data Archive)
Digital Photographs	.jpg	Volume tbc
Spreadsheets	.xlsx .ods	Typed up registers, raw site data (digital recording)
Text/ documents	.docx .pdf	To include at minimum the WSI, Project Report and scans of onsite record sheets
3D models	.obj	Graphics data files - volume tbc
CAD Report Figures	.dwg	
GIS Report Figures	.aprx	
Raw survey data	.job	Geomatic data files - volume tbc
Processed survey data GIS shapefiles	.shp	

How will the data be collected or created?
CFA Archaeology is a registered organisation with the Chartered Institute for Archaeologists (CIfA). Work will be conducted with regard to the Institute's Standards documents (CIfA 2019, 2020a, 2020b and 2022), relevant Historic England guidance documents (Campbell et al. 2011, Baker and Worley 2019, Historic England 2025), European Archaeological Council Guidance (Perrin et al. 2014), Archaeological Data Service instructions (ADS 2025), the Archaeological Archives Forum Guidance (Brown 2011), Hertfordshire Archaeological Archives Standards (Hertfordshire Museums 2017) . Details are set out in the WSI. Recording of all elements will be done following established CFA procedures.
Data Standards/ Methods • Paper records, digital photos and survey data is collected on site • Data collected on site is downloaded or scanned and stored in an appropriate folder. • On site records are typed up as part of report preparation. • Reports are created once the onsite works are completed and records checked, by an appropriate member of staff • Project folders are named and ordered following the CFA Quality Management System (QMS) • CFA Data storage is described in section 5.

Section 3: Documentation and Metadata

What documentation and metadata will accompany the data?
Full documentation and metadata will be supplied with the archive, in line with our own archiving requirements, as well as those from ADS. This will include, but are not limited to, metadata forms for each data type as well as overarching site metadata forms. Any relevant selection forms will be included with the archive.

Section 4: Ethics and Legal Compliance

How will you manage any ethical, copyright and Intellectual Property Rights (IPR) issues?

- The WSI outlines the names and details of contractors and staff who are proposed to work on the project. CFA have a GDPR compliant Privacy Policy which dictates the management of personal data.
- CFA is a Registered Organisation with ClfA and our staff have ClfA membership at the appropriate level. All of our work practises are therefore in line with ClfA's ethical requirements.
- Copyright for all data collected by the project team belongs to the organisation.
- The requirement of consent for the full transfer of title of finds regarding the landowner and recipient museum is set out in the WSI

Section 5: Data Security: Storage and Backup

How will the data be stored, accessed and backed up during the research?

In addition to our Data Protection Policy and Privacy Notice, CFA has in place the following policies (and associated notes) which outline and instruct procedures relating to IT and data management: CFA Data Management Plan, CFA IT Policy, CFA Data Breach Response Plan, CFA IT Procedures (attachment 10a). At our Musselburgh office, digital data is stored on two primary servers with a back-up cycle controlled via a separate dedicated backups server. Back-ups are configured to provide daily, weekly, and monthly redundancy across all offices. We also back up incrementally to external devices weekly. At our Yorkshire and Milton Keynes offices, digital data is stored on primary servers using multiple virtual configurations. All network data from these offices is mirrored nightly to the Musselburgh network, and is included in the Musselburgh back up. All digital files are protected both at server level using Linux proprietary protection, and by ESET Anti-Virus software on all desktops and portable devices where possible. Access to all CFA business networks is restricted, with variable user-level access to folders and password-protected files as appropriate.

Digital site records such as survey data and digital photographs are stored digitally on our network in compliance with our Security Copies Policy. Hard copy site records are scanned regularly throughout site works and stored digitally on our network in compliance with our Security Copies Policy.

Section 6: Selection and Preservation

Which data should be retained, shared, and/or preserved?

The digital archive will be subject to a selection process, dependant on the results of the works and in line with ClfA, Historic England and ADS guidance. The selection will be based on the below table.

Type of record	CFA	Depository		Delete/ Discard
	Digital only	Physical	Digital	
Admin Files				
WSI, Project Designs and Briefs	x	x	x	
Scheduled Monument Consent	x	x	x	
Correspondence	x			
Quality Records- filled/completed	x			
Plant/car hire documents				x
Watching brief timesheets				x
Handwritten notes				x
Client data files				
Developer maps (digital)	x			
Developer or OS maps/plans (with field notes)		x		
Developer or OS maps/plans (un-annotated)				x
Maps showing locations of services & utilities				x
Geomatic files				
Raw survey data	x			
Processed survey data GIS shapefiles	x		x	
Graphics files				
3D models	x		x	
Photos for 3D models	x		x	
Orthophotos from 3D models	x		x	
CAD Report Figures	x			
GIS Report Figures	x			
Graphics requests				x
HER Data				
SMR/HES/Pastmap/HER printouts				x
Health, Safety and the Environment Records				
Risk assessment	x			
Primary Records				
Primary site records - may be created digitally or on paper	x	x	x	
Photos - Apart from duplicates and images that have been voided	x		x	
Post Excavation files				
Specialist reports and data	x		x	
C14 certificates	x		x	
Archive forms	x		x	
Artefact photography	x		x	
Report				
Appendices	x		x	
Publication	x		x	
Final Reports	x		x	
Draft Reports – older versions				x
Report covers and copies of figures included in reports				x
OTHER				
Duplicates/blank documents/unused documentation				x

What is the long-term preservation plan for the dataset?

An online OASIS form will be completed as part of the archaeological work within three months of the completion of the work. An appropriately formatted copy of the report will also be uploaded to OASIS within three months of the completion of the work.

A digital copy of the project report will be deposited with Hertfordshire Historic Environment Record (HER) within a suitable timescale. This ensures that the report will be made available as a public document as part of the Historic Environment Record.

The resulting digital archive will be deposited with the Archaeological Data Service (ADS) in line with guidance from the Archaeological Archives Forum (Brown 2011), ADS (2025) and CIfA (2019, 2020b, 2022).

This includes:

- A fully ordered and consistent digital data archive, with files named and structured in a logical and formalised manner, accompanied by relevant documentation and metadata.

Have you contacted the data repository?

The Hertfordshire HER will be notified in advance of works.

North Hertfordshire Museums Resource Centre will be notified at set stages of the project, including at project initiation (comprising a project initiation form), a mid-point review, and completion stages to discuss archaeological archiving requirements.

Have the costs of archiving been fully considered?

The estimated costs for the archiving of the project, including preparation and creation of the archive, have been included in the project budget.

Section 7: Data Sharing

How will you share the data and make it accessible?

- An appropriately formatted copy of the report will be uploaded to OASIS within three months of the completion of the work.
- A digital copy of the final report will be deposited with the Hertfordshire HER within a suitable timescale following the completion of fieldwork. This will ensure that the report be made available as a public document as part of the Historic Environment Record
- The paper records will be deposited with the North Hertfordshire Museums Resource Centre, along with the selected digital archive and any finds recovered on site.
- The selected digital archive will be uploaded to ADS and be accessible through their portal.

Are any restrictions on data sharing required?
N/A

Section 8: Responsibilities

Who will be responsible for implementing the data management plan?
The Project Manager will have overall responsibility for implementing the DMP, and ensuring it is reviewed and revised at each stage of the project. • Data capture and data quality is the responsibility of the Field Director, assured by the Project Manager. • Storage and backup of data in the field is the responsibility of the Field team. • Once data is incorporated into the organisations project server, storage and backup is managed as described in section 5. • Data archiving is undertaken by the post excavation team under the guidance of the Post-Excavation and Archives Manager, who are responsible for the transfer of the Archaeological Project Archive to the agreed repositories. • Details of the core project team can be found in the WSI.

Section 9: Bibliography

ADS 2025 *Instructions for Depositors* <https://archaeologydataservice.ac.uk/help-guidance/instructions-for-depositors/> Accessed 21st July 2025

Baker, P and Worley, F 2019 *Animal Bones and Archaeology - Recovery to archive* Historic England

Brown, DH 2011 *Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation* Institute for Archaeologists on behalf of the Archaeological Archives Forum (second edition)

Campbell, G, Moffett, L and Straker V 2011 *A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* Historic England (second edition)

ClfA 2019 *Dig Digital. Work Digital. Think Archive. Create Access. A guide to managing digital data generated from archaeological investigation* https://www.archaeologists.net/sites/default/files/2025-03/DigDigital_Full_Guidance.pdf

ClfA 2020a *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* <https://www.archaeologists.net/sites/default/files/2023-11/ClfA-SandG-Archaeological-Materials-2020.pdf>

ClfA 2020b *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* <https://www.archaeologists.net/sites/default/files/2023-11/ClfA-SandG-Archaeological-Archives-2020.pdf>

ClfA 2022 *Toolkit for Selecting Archaeological Archives* https://www.archaeologists.net/sites/default/files/2025-03/SelectionToolkit_Full_v2.pdf

Hertfordshire Museums 2018 *Hertfordshire Archaeological Archive Standards* [Hertfordshire Archaeological Archive Standards Version 1 April 2017](#) Accessed 30th March 2026

Historic England 2025 *Archaeological Archives* <https://historicengland.org.uk/research/methods/archaeology/archaeological-archives/> Accessed 21st July 2025

Perrin, K, Brown, D H, Lange, G, Bibby, D, Carlsson, A, Degraeve, A, Kuna, M, Larsson, Y, Pálsdóttir, S U, Stoll-Tucker, B, Dunning, C, and Rogalla Von Bieberstein, A, 2014 *The Standard and Guide to Best Practice for Archaeological Archiving in Europe* (EAC Guidelines 1)



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