

Written Scheme of Investigation for Archaeological Observation, Investigation and Recording

Coombe House

Langley Hill

Kings Langley

Hertfordshire

Derek Watson PhD April 2024



Site Data

KDK project code:	840/KLL						
OASIS ref:	kdkarcha1-5	24114	Event/Accession no:	TBC			
County:		Hertfords	Hertfordshire				
Village/Town:		Kings Langley					
Civil Parish:		Kings Lang	gley				
NGR (to 8 figs):		TL 0659 0	263				
Present use:		Residential					
Planning proposal:		Re-roofing with installation of 3 new rooflights, replacement of windows, construction of front porch. Create new ground floor rear opening and alteration of 2 front openings. Constructing terrace to rear and driveway to front of house.					
Local Planning Author	rity:	Dacorum Borough Council					
Planning application r	ref/date:	24/00193/FHA					
Commissioned by:		Will Fitzgibbon Chalkline Architectural Services Limited 43 Delamere Road Ealing London, W5 3JL					
Client:		Peter Seymour-Howell Coombe House Langley Hill Kings Langley Hertfordshire, WD4 9HG					

Quality Check

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KDK Archaeology Ltd



CONTENTS

1.	Introduction	1
2.	Aims and Methods	6
3.	Archaeological and Historical Background	11
4.	Reporting	14
5.	Archive	15
6.	Staffing	16
7.	Programme	19
8.	Other Requirements	20
9.	References	22
Fig	ures:	
1.	General location	3
2.	Site location	4
3.	Development Plan	5
4.	HER data plan	13
Аp	pendices:	
1.	Environmental Sampling Strategy	24
2.	Archive Collection and Selection Strategy	26
3	Initial Risk Assessment	30



1 Introduction

- 1.1 This Written Scheme of Investigation has been prepared on behalf of Peter Seymour-Howell as a specification for Archaeological Observation, Investigation and Recording at Coombe House, Langley Hill, Kings Langley, Hertfordshire. The work, which is part of a requirement of the National Planning Policy Frameworks (NPPF) and Condition 3 of the Planning Consent, has been defined by the Archaeological Advisor (Hertfordshire Historic Environment Team (HHET)), on behalf of the Local Planning Authority (LPA), Dacorum Borough Council. The relevant planning application reference is 24/00193/FHA.
- 1.2 This Written Scheme of Investigation incorporates the requirements set out by Historic England in *Management of Research Projects in the Historic Environment* (2015) and covers:
 - The scope of the project
 - The objectives and methodologies
 - The archaeological and historical context
 - Dissemination of the results
 - Archive deposition
 - Details of permanent and specialist staff
 - The proposed programme of work
 - Relevant additional information, e.g. insurance, copyright etc.
 - Bibliography of professional and academic resources

1.3 The Site

Location

The development site is situated in the village and civil parish of Kings Langley and is within the administrative district of Dacorum Borough Council. It is centred on National Grid Reference (NGR) TL 0659 0263 (Fig. 1).

Description

The development site, Coombe House, is situated on the south-western edge of Kings Langley, on the western side of Langley Hill, behind (i.e., northwest of) the Grade II Hill Cottage, and Priory Lodge, and was part of the former school of Kings Langley that bounds the site to the west, southwest and south. The school was established on the site of, and incorporating remains of, the former medieval Dominican Priory (Scheduled Monument 1005511), which covers a large area situated to the north (extending to Chipperfield Road), northwest, west and southwest of the development site, currently allotment gardens, a carpark and open and agricultural land. The development site abuts the south-eastern edge of the boundary of the Scheduled Monument, and this part of the property (and the proposed terrace) lies within the boundary of the site of the Dominican Priory (Fig. 2).

Geology and Topography

The bedrock sedimentary geology is chalk of the Lewes Nodular Chalk and Seaford Chalk Formations, formed between 93.9 and 83.6 million years ago during the Cretaceous period; this is overlain by superficial deposits of clay, silt, sand and gravel of the Clay-with-flints Formation, deposited between 23.03 million and 11.8 thousand years ago during the Neogene and Quaternary periods (https://geologyviewer.bgs.ac.uk/). The development site is situated at an approximate elevation of 135m AOD.



Proposed Development

The proposal calls for re-roofing with the installation of 3 new rooflights, the replacement of windows; the construction of a front porch; the creation of a new ground floor rear opening; the alteration of 2 front openings; and the construction of a terrace to the rear and a driveway to the front of the house (Fig. 3).



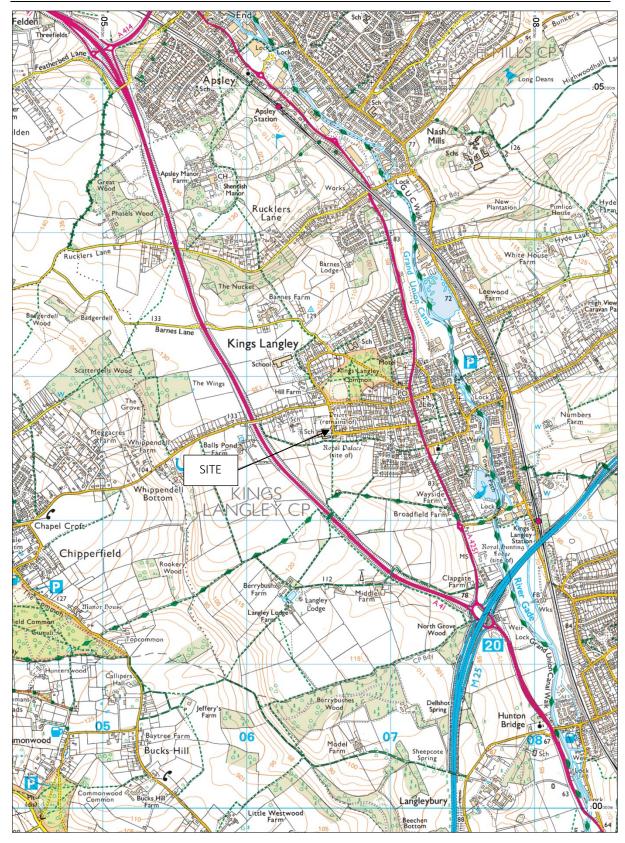


Figure 1: General location (scale 1:25,000)





Figure 2: Site location (scale:1250)



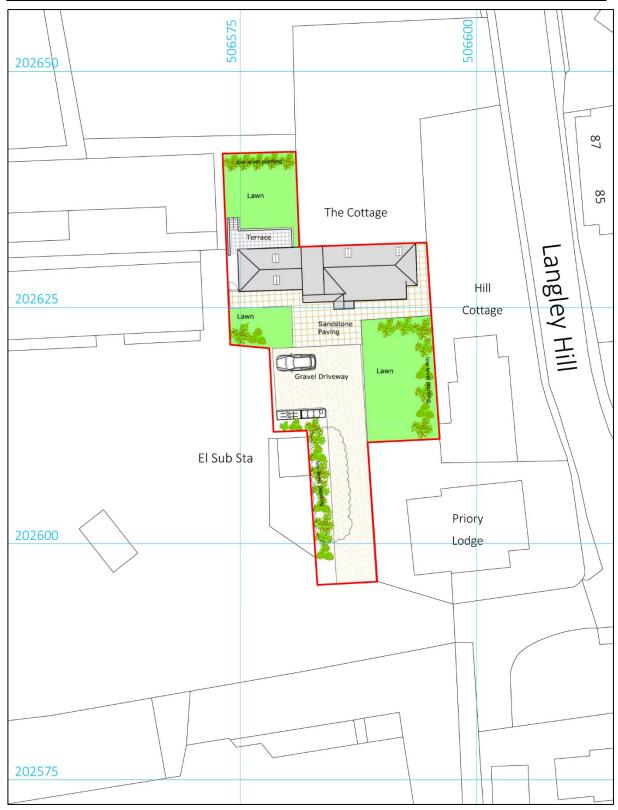


Figure 3: Proposed development plan (scale 1:400)



2 Aims and Methods

2.1 *Aims*

The aims of the project are:

- To establish the date, nature and extent of activity or occupation within the development area
- To establish the relationship of any remains found to the surrounding contemporary landscape
- To recover palaeo-environmental remains to determine local environmental conditions.

The development site was part of the former school of Kings Langley which was established on the site of, and incorporating remains of, the former medieval Dominican Priory (Scheduled Monument 1005511). Coombe House abuts the south-eastern edge of the boundary of the Scheduled Monument, and this part of the property (and the proposed terrace) lies within the boundary of the site of the Dominican Priory. Kings Langley rose to prominence in the medieval period as a royal residence and priory, but its location along the River Gade made it an attractive site for human occupation since prehistory. Additional research aims would, therefore, be as follows (ALGAO East of England, 2021):

- Med (Rural) 06: How can we improve our understanding of medieval rural religious structures and features?
- Med (Urban) 28: How can we improve our understanding of religious institutions within urban centres?

2.2 Standards

The work will conform to the following requirements:

- The relevant sections of the Chartered Institute for Archaeologists' Standard and Guidance for an Archaeological Watching Brief (CIFA 2020a)
- The Chartered Institute for Archaeologists' Code of Conduct (CIfA 2022)
- Current Historic England guidelines (EH 2008, HE 2015)
- The Association of Local Government Archaeological Officers East of England Region Standards for Field Archaeology in the East of England (ALGAO 2003)
- Data Protection Act 2018

2.3 **Methods**

The methods used will be as follows:

- The archaeological monitoring of all groundworks related to the development, including foundation trenches, service trenches, ground reduction, landscaping and any other ground impact. This will include a contingency for preservation or further excavation of any remains encountered
- The analysis of the results of the archaeological work with provisions for subsequent production of a report(s) and/or publication(s) of these results & an archive
- Provisions necessary to protect the archaeological interests of the site

2.4 *Methodology: Watching Briefs*

A programme of archaeological Observation and Recording (also known as a Watching Brief) requires an experienced archaeologist to monitor groundworks such as footing and service trench excavation, ground reduction or landscaping on a development. If archaeological remains are revealed, construction work will stop so that the remains can be investigated and recorded. The Watching Brief is undertaken in accordance with the building contractor's



timetable and so requires close co-operation and communication between contractor and archaeologist.

Each site visit will generate observation records including sketches and photographs as appropriate. These will be entered on KDK *pro forma* sheets. Where possible professionally prepared plans of the development prepared for the client will be used as a basis for locating archaeological features and finds.

Should significant archaeological remains be revealed during the watching brief, an appropriate strategy will be agreed with the client and HHET. Provision for this has been included in the project estimates. Detailed investigation will follow the methods set out in the following section.

2.5 **Methodology: Investigation** (if required)

Excavation

Archaeological features and deposits will be excavated by hand. All discrete features will be half sectioned, where safe to do so. At least 50% of each feature should be investigated. At least 20% of each linear feature will be sampled with slots at least 1m wide. Deeply stratified deposits will be investigated according to site conditions, location of deposits etc. and according to a site-specific strategy agreed with HHET.

Maximum depths of excavation will conform to current Health and Safety regulations.

Surveying

Surveying will be undertaken using Global Positioning System technology (GPS) and the results presented in CAD format and converted to TIFF or PDF as required. All plans and section drawings will be annotated with relative heights and all plans will be related to the OS National Grid. Digital survey data will be presented in an appropriate CAD format and converted to TIFF or PDF as required.

Planning

Site plans will normally be drawn to a scale of 1:100 or 1:50. Where greater detail is required specific areas or features may be drawn to 1:20 or 1:10. Digital surveying equipment may also be used and the results presented in a CAD format. Sections will generally be drawn at 1:10, unless the size of the section is more appropriately illustrated at 1:20. Where greater detail is required, for example, for complex and/or intercutting features, hachures will be included. Plastic film will be used for manual site drawings.

Recording

Each context will be recorded in either electronic format or on KDK's Context Record Sheet, which details dimensions, shape, fill type and inclusions, artefact content, samples and interpretation. A register of contexts will be maintained, and context records will be cross-referenced to all other records.

Photography

The primary photographic record will be complied using a high specification digital SLR camera (minimum 20 mgp). Metric scales, a photo board and a north arrow will be used in all photographs where appropriate. A cross-referenced photographic register will be maintained on KDK's Photographic Record Sheet.



Finds

All stratified finds will be collected by context and, if of particular significance, individually recorded in 3 dimensions on KDK's Object Record Sheet. Un-stratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest.

Finds processing, which can take place during or after fieldwork, involves cleaning, marking, packaging, quantification and initial classification. In most cases the conservation of artefacts will take place after processing, but primary conservation of delicate artefacts may be required on site. First Aid for Finds by Watkinson and Neal (1998) is considered the standard reference for finds recovery, processing and packaging. Provision has been made for finds analysis and conservation in the project estimates.

Environmental

Environmental sampling strategies will be applied as appropriate and according to Historic England guidance (Campbell *et al.* 2011). See Appendix 1 for further details.

If appropriate, environmental samples will be taken from features to enable their date, nature, and condition to be described and analysed. Samples will be taken from the fills of features where organic materials may be preserved, such as pits, ditches and other deposits, especially if waterlogged.

Where there is evidence for industrial activity, macroscopic technological residues (or a sample of them) will be collected by hand. Separate samples (c. 10ml) will be collected for micro-slags (hammer-scale and spherical droplets).

Samples will be taken for scientific dating (such as radiocarbon dating) where, for example, dating by artefacts is insecure or absent and where dating is necessary for the specification for subsequent mitigation strategies (see section on scientific dating below for more information).

Geoarchaeological assessment of buried soils and sediment sequences may also be undertaken if appropriate. This will be done by field inspection by a specialist geo-archaeologist who, following discussion with the Archaeological Advisor, may take samples for laboratory assessment where appropriate,

Deposits will be sampled for the retrieval and assessment of the preservation conditions and potential for analysis of biological remains. The sampling strategy will be developed in collaboration with KDK's consultant specialist. Flotation samples and samples taken for coarsemesh sieving from dry deposits will be processed at the time of the fieldwork if possible, in order to allow a variation of sampling strategies if necessary.

Sampling strategies for wooden structures will follow the methodologies presented in English Heritage's Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood (2010).and guidance (Campbell *et al.* 2011).

All samples will be recorded on KDK's Sample Record Sheet, and a register of samples will be maintained. Provision has been made for sampling, analysis and reporting in the project estimates.

Collection and Selection Strategy

A collection and selection strategy, relating to all aspects of the projects created data and found material, will be agreed between the KDK, HHET and the Depositing Museum. This



strategy is outlined in Appendix 2. *Scientific Dating*

A number of scientific dating techniques are available. Radio-carbon or C14 dating is commonly used to date organic remains including human remains where no other means of dating is available. Archaeomagnetic or thermoluminescence dating may be applied to pottery or ceramic building materials, kiln linings etc. Dendrochronological dating may be possible on certain species of timber where sufficient growth rings have survived. Provision has been made for scientific dating in the project estimates.

Human Remains

An exhumation license from the Ministry of Justice is necessary if human remains are encountered (Section 8.6, below). Under the Human Tissues Act 2004, the Environmental Health Officer must also be notified if the remains are less than 100 years old. Although human remains are generally left *in situ*, if possible, in any investigation or removal of remains will be agreed between KDK, the client, HHET and other appropriate authorities and will be undertaken in accordance with current guidelines (McKinley & Roberts 1993, Brickley & McKinley 2004). Any and all human remains will be treated with care and respect.

Security

The security of the archaeological remains, the archive and the site as a whole will be safeguarded as much as possible. The security of individuals on site, whether KDK staff or not, will perforce take precedence.

2.6 Requirements for the Building Contractor

- Footings, service trenches, soakaways, and ground reduction are to be monitored
- Contractor needs to notify KDK at least 48 hours in advance of work

2.7 Post-excavation work

The archaeological fieldwork will be followed by a period of post-excavation processing and analysis, which will include the cataloguing and analysis of any finds and samples, and the preparation of the archive for the site report and its subsequent deposition.

Artefacts, biological samples and soils will be assessed for evidence of site and deposit formation processes and taphonomy, and especially for evidence of recent changes that may have been caused by alterations in the site environment. Assessment should include x-radiography of all iron objects, (after initial screening to exclude obviously recent debris), and a selection of non-ferrous artefacts (including all coins). Where necessary, active stabilisation or consolidation will be carried out, to ensure long-term survival of the material, but with due consideration to possible future investigations.

Assessment of any technological residues will be undertaken and where appropriate, samples will be submitted for scientific dating.

All soil samples collected for biological assessment, or sub-samples of them, will be processed in-house before being sent to the specialist(s) to assess the preservation state, density and significance of material retrieved. Special consideration will be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment.



Samples collected for geoarchaeological assessment will be processed as deemed necessary by a recognised specialist, particularly where storage of unprocessed samples is thought likely to result in deterioration. Appropriate assessment will be undertaken. Where preservation in situ is a viable option, consideration should be given to the possible effects of compression on the physical integrity of the site and to any hydrological impacts of development.

Animal bone assemblages, or sub-samples of them, will be assessed by our in-house or consultant specialist as appropriate.

Assessment of human remains will have been based partly on in situ observation, but where skeletal remains have been lifted assessment will be undertaken by our in-house specialists

Artefacts such as pottery, glass, small finds etc, will be assessed by the relevant specialist (see Section 6.2).



3 Archaeological and Historical Background

3.1 Kings Langley rose to prominence in the medieval period as a royal residence and priory, but its location along the River Gade made it an attractive site for human occupation at least as far back as the late Mesolithic. The village had two principal areas of development, the main commercial area in the valley bottom along the High Street and on Langley Hill to the west, where the palace and priory were located. The development site is situated within an Area of Archaeological Significance and the Kings Langley Conservation Area.

This section has been compiled with information from the Hertfordshire County Council Historic Environment Record (HER ref: 10.24), previous reports by KDK Archaeology Ltd on an adjacent site (Shlasko 2019, 2021), and reliable online sources. The HER data, with a 500m search radius from the development site, is shown in Fig. 4.

3.2 *Prehistoric – Roman* (before *c*AD450)

There is some evidence for late Mesolithic material and early Neolithic pottery from sites in the Gade valley south of Kings Langley (Hunn & Semmelmann 2009:4). A Neolithic flint axe and 'worked bone' were found at Kings Langley Common, northeast of the proposed development (HER 339). Prehistoric features were also found at sites southeast of the development (HER 16579 & HER 17327). In 1981, a Roman villa was found south of the village near the river (HER 510).

3.3 **Saxon** (c.450 - 1066)

In c.1050, the settlement, called Langalege, appears for the first time in the documentary record (KLP 2024). The name was a fairly common one, meaning 'long wood or clearing' (Mills: 1991: 203-204). At the end of the Saxon period, the manor belonged to Egelwin le Swarte and Aelfleda, his wife, who granted it to the abbey of St Albans (Page 1908). This took place between 1042 and 1049 (Reader 1994:103), but there was some dispute over ownership of the manor by the end of the Saxon period, and the abbey seems to have lost control over the land by 1066 when the manor was held by Særic and Thorir, two of Earl Leofwin's men (Williams and Martin 2002: 379).

3.6 *Medieval* (1066 - 1500)

According to the Domesday Survey, in 1086 the manor of *Langelai* was held by Ralph from Robert, the Count of Mortain. The manor encompassed enough land for 16 ploughs, but at the time there were only two men's ploughs. The population included four *villans*, five *bordars* and one Frenchman, as well as two slaves. The settlement boasted two mills and there were also three ploughs of meadow, pasture for livestock and woodland for 240 pigs (*ibid*).

By the 13th century, the manor had begun a lengthy association with the Crown, as it was granted to a succession of royal women, from Isabella of France, through Katherine of Aragon, Anne Boleyn and Jane Seymour (Page 1908).

The development site was part of the former school of Kings Langley which was itself established on the site of, and incorporating remains of, the former Dominican Priory. This was a well-established mainly 14th Century religious monastery with evidence for the remains of the church and a range of claustral buildings. The site has very high heritage values based on its evidential, historical and archaeological associations and the grounds of the Priory are scheduled: Dominican Priory (site of) (excluding inhabited parts) (NHLE: 1005511); and contain the Grade II* Priory Remains (now part of the new school) and attached buildings (NHLE: 1348439). The full extent of the priory site is not known, and the Scheduled Monument



extends protection to the known extent at the time of designation. The priory was at one point the richest Dominican priory in England (HER 97; NHLE: 1005511). Although little survives, a geophysical survey identified a medieval wall foundation (HER 31497) to the north of the proposed development site. The Dissolution of the Monasteries (1536 to 1541) under Henry VIII marked the end of the life of the Friary, although it was revived briefly as a nunnery in the reign of Queen Mary I (1556-1558). The development site abuts the south-eastern edge of the boundary of the Scheduled Monument, and this part of the property (and the proposed terrace) lies within the boundary of the site of the Dominican Priory.

The palace and deer park, which gave Kings Langley its royal designation, also appear in the 13th century (HER 96 & HER 4099). The palace was used by Edward I, Edward II, Edward III and Richard II. Edmund of Langley, fourth son of Edward III and the First Duke of York, was born there in 1341. The king held court there in 1349 while the plague was in London. Richard II spent time at the palace and was buried in Kings Langley priory (*ibid*). The palace fell out of use in the 15th century, following a fire in 1431 (Hastie 1991), but the park, which is depicted on a mid-17th century map, was not disparked until 1881. The Dominican Priory was established by Edward II in 1308 (Hunn & Semmelmann 2009:5). Both the palace and the priory were located on the plateau above the village, with a wide ceremonial drive, now Langley Hill, that led up to the palace (HER 12533). Whilst the royal connection brought wealth to the village, Kings Langley also had a market and fair.

3.7 **Post-medieval** (1500 - 1900) & **Modern** (1900 - present)

Most of the surviving structures in the vicinity of the proposed development site date to the post-medieval period, such as the 16th century Hill Cottage (Grade II, NHLE: 1295983; Shlasko 2019, 2021; HER 16431; EHT7024), which is immediately southeast of the development site. The palace was largely gone by the 16th century, and the priory was dissolved in 1538 (Page 1908). The ruins of a manor house built by Sir Charles Morrisson after 1580 remain in the rear garden of 76 Langley Hill (HER 812; Grade II, NHLE: 1100417). The area on Langley Hill around Hill Cottage was no longer centrally placed, as the focus of settlement reverted to the valley bottom. This focus was reinforced by changes in transport, beginning with the development of the Sparrows Herne Turnpike Road in 1782, followed by the Grand Junction Canal in 1804 and the London and Birmingham Railway in 1839 (Hunn & Semmelmann 2009: 7; http://www.kingslangley.org.uk/railway.html). Improved transportation brought new economic opportunities, from the development of coaching inns (e.g., the Old Palace Lodge and Langley Hill House (Grade II, NHLE: 1100414) and The Old Palace Public House (Grade II, NHLE: 1348438)) to the growth of paper mills.

Other heritage assets from these periods include a wall box in the garden wall, Vicarage Lane (HER 5291), the site of a gravel pit (HER 7171) on Kings Langley Common (unknown date; HER 12532); and 'Westmeon', a 1908 Arts & Crafts house on Langley Hill (HER 12997). Undated cropmarks of linear features and possible pits (HER 17327) are situated *c*.350m southeast of the development.

3.8 Site-specific

The Rudolf Steiner School was established on the site of a private school known as Coombe Hill or Priory School in 1949. It provided private education for 3-19 year olds on a site covering approximately 10 acres (4.0 ha). The school closed in March 2019 (https://en.wikipedia.org/wiki/Rudolf_Steiner_School_Kings_Langley).



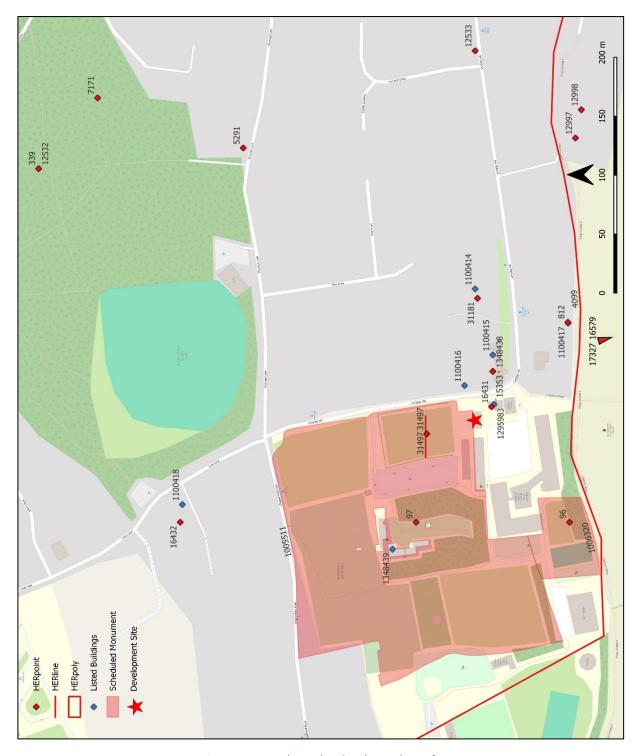


Figure 4: HER data plan (scale as shown)



4 Reporting

- 4.1 A report will be compiled bringing together all the field-work and post-excavation results. The report will typically include:
 - A concise non-technical summary of the results
 - The objectives of the project
 - The methodologies used
 - The circumstances and date at which it was undertaken
 - The identity of the organisation and individuals carrying out the work (in particular the names of the project director, site supervisor and any specialists), in line with GDPR requirements.
 - A summary of the history and archaeology of the site and its context
 - A written account of the results of the project with appropriate supporting illustrations.
 - A conclusion, summarising the results and examining their significance
 - Statement of confidence rating
 - References
 - An index to and the proposed location of the archive
 - Appendices as appropriate
 - An HER Summary Sheet
- 4.2 Electronic and/or paper copies of the report will be provided for the client, HHET and the HER as required.
- 4.3 Interim reports on the project will be submitted to any relevant regional and county journals (e.g. Hertfordshire Archaeology and History), and to any relevant specialist journals (e.g. Industrial Archaeology Review, Journal of the Historic Farm Buildings Group), within one year of the project's completion.
- 4.4 The project has been registered with the Archaeology Data Service, which will allow an OASIS summary form and the report to be submitted once it has been approved.
- 4.5 Where the archaeological remains revealed require sufficient further analysis for a detailed academic report, a post-excavation strategy will be agreed between KDK and HHET. This additional programme of work will follow guidelines established by Historic England (2015), consisting of successive stages of archive assessment, analysis, research and report preparation.



5 Archive

- 5.1 The project archive consists of the electronic and paper records, photographs, artefacts and environmental samples. On occasion associated records, photographs or finds are also acquired. It is essential that this primary information is stored in a suitable environment to allow it to be studied by anyone with an interest to do so.
- 5.2 During the course of the project the client will be asked to sign a Transfer of Title form to allow any artefacts found during the excavation to be deposited as part of the full archive with the local museum.
- As Dacorum Museum is currently unable to accept physical archives, KDK will make alternative arrangements to hold the archive until deposition can be arranged.
- 5.4 The digital archive for this project will be uploaded to the Archaeological Data Service in line with the Hertfordshire Archaeological Archive Standards 2017.



6 Staffing

6.1 **KDK Staff**

Karin Kaye MA MCIfA

Karin graduated from the Institute of Archaeology, UCL with an MA and first-class honours degree in medieval archaeology. Her archaeological career began at the Heritage Network, in Hertfordshire, where she was given a solid grounding in commercial archaeology. In subsequent posts she gained considerable experience in managing all types of archaeological projects as well as specialising in historic buildings and church archaeology. She co-founded KDK Archaeology Ltd with David Kaye, which began trading in early 2013.

David Kaye BA ACIfA

David graduated with an honours degree from the Institute of Archaeology, UCL in 2004 following a long career in photography, graphic design, and exhibitions. He joined Heritage Network, in Hertfordshire, whilst still a student and gained considerable experience in his seven years there. Since then he has led many excavations, including a large Roman field system at a quarry site, an Anglo Saxon cemetery at a school, and an ongoing Roman roadside settlement at an industrial complex. Apart from the day-to-day project management, David is responsible for all elements of Health and Safety.

Laura Dodd MSc MCIfA

Laura graduated from the University of Reading in 2013 with a BA in archaeology and continued her studies at Durham University where she achieved an MSc in Palaeopathology. She has a particular interest in the isotopic analysis of human remains and during her time at Durham assisted in a project to identify potential childhood origins of several individuals found in a mass grave. Laura has taken part several large-scale excavations such as the Roman field school at Silchester and the Amheida project in Egypt's Dakhla oasis. Since joining KDK in 2015 Laura has gained experience of running all types of fieldwork and is now the post-ex and archives manager. She is also the company osteo-archaeologist and is a member of BABAO.

Ellen Shlasko PhD

Ellen has been working as a reports officer for KDK since 2015. Previously, she was based in the US, where she specialised in the historical archaeology of the southeast. A graduate of Brandeis University, she holds a MA in historical archaeology from the College of William and Mary in Virginia and a PhD from Yale University. Ellen is also active in the Welwyn Archaeological Society and the Community Archaeology Geophysics Group, which has been mapping the Roman city of Verulamium since 2013.

Barney King PCIfA

Barney King began working in archaeology after a varied career as a projectionist, theatre technician and plumber's assistant, among other occupations. He started working on large scale Romano-British sites in Hertfordshire and Buckinghamshire, after enjoying a stint of archaeological volunteer work. He joined KDK as field technician and company quartermaster in 2017, and is now responsible for maintaining IT systems, surveying and processing environmental samples.



Chris Martin-Taylor BSc

Chris Martin-Taylor graduated from Bournemouth University in 2015 with a BSc in Archaeology. Prior to that, he studied for a foundation degree in Applied Architectural Stonework and Conservation in Dorchester and Weymouth, which included practical training in stonemasonry and historic building conservation. He has worked on numerous sites in the midlands and southeast England, as well as taking part in the experimental archaeology project at Guédelon Castle in France. Chris joined KDK in 2017 and has enjoyed developing his skills in many aspects of archaeological fieldwork. He has a keen interest in the history and archaeology of the post-Roman and medieval periods, particularly the study of the early medieval built environment.

Derek Watson PhD

Derek Watson graduated from the Institute of Archaeology, UCL in 2004 with a PhD in Archaeology. He also has a first-class honours degree in Environmental Archaeology from the Institute of Archaeology and an MSc from the University of Sheffield in archaeological environmental science and palaeoeconomics. He has worked on both commercial and academic archaeological projects in North America, Europe, North and West Africa, and has directed his own research projects in Ghana. Derek has been working as a zooarchaeologist and a reports officer for KDK since 2018.

Pat Reeves

Pat joined KDK as an administrative assistant in 2017 bringing with her a wealth of experience from a long and varied career. Apart from her administrative and financial skills, Pat also provides specialist knowledge in post-medieval porcelain and small finds. She has been the office manager since 2021.



6.2 *Specialists*

The following are KDK's preferred specialists:

Subject	Specialist	Organisation
Building materials: Roman	Rob Perrin	Freelance
Building materials: post-Roman	Karin Kaye	KDK Ltd
Ceramics: prehistoric	Sarah Percival	Freelance
Ceramics: Roman	Rob Perrin	Freelance
Ceramics: Post-Roman	Paul Blinkhorn	Freelance
Coins: Roman	Peter Guest	Vianova Archaeology
Coins: Saxon	Anna Gannon	Freelance
Coins: Post-Saxon	Murray Andrews	Freelance
Environmental: seeds	Lisa Gray	Freelance
Environmental: archaeobotanical	Lisa Gray	Freelance
Environmental: mollusca	Mike Allen	Freelance
Environmental: soils	Mike Allen	Freelance
Environmental: animal bone	Derek Watson	KDK Ltd
Environmental: animal bone	Matilda Holmes	Freelance
Environmental: human bone	Laura Dodd	KDK Ltd
Environmental: human teeth	Patrick Mahoney	KORA
Environmental: pollen	Rob Scaife	Freelance
Bone antler & ivory small finds	Ian Riddler	Freelance
Glass	Hilary Cool	Freelance
Lithics	Sarah Bates	Freelance
Lithics	Lyndon Cooper	Pre-Construct Archaeology
Metalwork	Quita Mould	Freelance
Quernstones	Chris Green	Freelance
Industrial waste	Lynne Keys	Freelance
Saxon & medieval small finds	Rosie Weetch	Freelance
Timber	Damian Goodburn	Freelance



7 Programme

- 7.1 A programme of monitoring will be agreed with HHET prior to the commencement of fieldwork and in full consultation with the client. KDK will keep HHET and the client informed of progress.
- 7.2 Unless significant archaeological remains are encountered requiring further analysis, the report will normally be available no later than four weeks after the fieldwork has been completed. The archive will normally be ready for deposition within six months of completion of the report.

7.3 Proposed Programme

A provisional outline of the timetable and staffing of the different phases of the projects are as follows:

Stage	Person-Days	Staff
Observation and recording	As required	Site Director
Investigation & Recording of Significant Archaeology	As required	Site Director
Report	2 minimum	Site Director/Reports Officer
Specialist Reports	As required	Appropriate specialist
Archive	0.5	Archivist



8 Other Requirements

8.1 Health and Safety

All work by KDK staff will be carried out according to the relevant Health and Safety legislation. This includes, *inter alia*, the following:

- Health and Safety at Work Act 1974
- Construction (Design and Management) Regulations 2015
- The Management of Health and Safety at Work Regulations 1999
- Personal Protective Equipment at Work Regulations 1992
- Work Equipment Regulations 1998
- Manual Handling Operations Regulations 1992
- Workplace (Health, Safety and Welfare) Regulations 1992

A copy of KDK's *Health and Safety Policy* will be supplied if requested by client or HHET. An Initial Risk Assessment (Appendix 3) has been completed prior to the commencement of the project, and will be checked and updated on site.

8.2 *Insurance*

KDK holds the following insurance cover (further details can be provided if required):

Employer's Liability £10,000,000

Public Liability £5,000,000

Professional Indemnity £1,000,000

8.3 *Copyright*

Unless otherwise agreed, full copyright of any written, graphic, electronic or photographic records and reports rests with KDK, which will licence their use in relation to the specific project by the client or sponsoring body in all matters relating to the project, as described in this Written Scheme of Investigation.

KDK will assign joint copyright to the museum or repository undertaking curation of the archive, but retains the right to be identified as author of all project documentation and reports, as defined in the Copyright, Designs and Patents Act 1988 (Chapter IV, sec.79).

8.4 Curatorial Requirements

Monitoring is carried out by HHET to ensure that project is being carried out in accordance with the brief and approved Written Scheme of Investigation, to enable the need for modifications to the project to be independently considered and validated and to control and validate the use of available contingencies. HHET will be advised of the start date and the anticipated duration of the project at least one week before the commencement of the fieldwork. HHET will be allowed access to the site as required, as will other professionals as required to ensure compliance with project health and safety requirements and access controls.

8.5 'Treasure'

The 1996 *Treasure Act* and its 2003 amendment specifies that the finders of specific types of artefacts it defines as treasure must report them to the Coroner within fourteen days of discovery. Failure to do so could lead to a maximum penalty of three months in prison and a fine of £5000. Further details are available on the Portable Antiquities Scheme website at



www.finds.org.uk. The Portable Antiquities Scheme will be notified of any finds that could be considered treasure within 48 hours of discovery.

8.6 **Human Remains**

Under recent changes in legislation to Section 25 of the Burials Act 1857, an application for a licence should be made whether buried human remains are to be removed from the ground or intended to be left *in situ* (since excavation is likely to disturb them). A site-specific license will be procured from the Ministry of Justice in advance of the project if human remains are thought to be encountered during the fieldwork.

Human remains in a Church of England site and municipal and private cemeteries that have been consecrated are protected by ecclesiastical as well as secular laws. The requirements for dealing with human remains on such a site should be detailed in a Faculty that must be procured from the Diocesan Registrar before works begin.

8.7 General Data Protection Regulations

As data controllers for personal information collected during the project, KDK will comply with the principles and letter of the GDPR regulations in the processing, management and archiving, where appropriate, of that data.



9 References

Standards and Specifications

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- Association of Local Government Archaeological Officers (ALGAO) 2003 Standards for Field Archaeology in the East of England. East Anglian Archaeology Occasional Paper 14
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- Brickley M. & McKinley J. I. 2004 *Guidelines to the Standards for Recording Human Remains*. Chartered Institute for Archaeologists Technical Paper
- CIFA 2019 Archaeological Archive Selection Toolkit. Reading: Chartered Institute for Archaeologists
- CIfA 2020a Standard and Guidance for an Archaeological Watching Brief. Reading: Chartered Institute for Archaeologists
- CIFA 2020b Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Reading: Chartered Institute for Archaeologists
- CIFA 2020c Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives. Reading: Chartered Institute for Archaeologists
- CIFA 2022 Code of Conduct. Reading: Chartered Institute for Archaeologists
- EH 2008 The Management of Research Projects in the Historic Environment. PPN3: Archaeological Excavation. London: English Heritage
- EH 2010 Waterlogged Wood: Guidelines on the Recovery, Sampling, Conservation and Curation of Waterlogged Wood. London: English Heritage
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Secondary Sources

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- Hastie S. 1991 *Kings Langley: A Hertfordshire Village*. Kings Langley: Kings Langley Local History and Museum Society
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- Medlycott M. (ed) 2011 Research and Archaeology Re-visited: A Revised Framework for the East of England. East Anglian Archaeology Occasional Paper 24
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- Reader R. 1994 Matthew Paris and Anglo-Saxon England: A Thirteenth-Century Vision of the Distant Past. Durham U. https://core.ac.uk/download/pdf/108165.pdf
- Shlasko E. 2019 Heritage Asset Impact Assessment: Hill Cottage, Langley Hill, Kings Langley, Hertfordshire. KDK Archaeology Report 462/KLL/1.1. Leighton Buzzard: KDK Archaeology Ltd
- Shlasko E. 2021 Written Scheme of Investigation for an Archaeological Strip, Map & Sample Excavation and Archaeological Observation, Investigation & Recording: Hill Cottage, Langley Hill, Kings Langley, Herts. Report for KDK Archaeology Ltd, 604/KLL2/1.1

Williams, A. & Martin G.H. 2002 Domesday Book: A Complete Translation. London: Penguin

Online Sources

British Geological Survey (BGS): https://geologyviewer.bgs.ac.uk/

Historic England:

- Priory: https://historicengland.org.uk/listing/the-list/list-entry/1005511;
- Hill Cottage: https://historicengland.org.uk/listing/the-list/list-entry/1295983;
- Palace: https://historicengland.org.uk/listing/the-list/list-entry/1005252

Kings Langley History: http://www.kingslangley.org.uk/railway.html

KLP 2024 Kings Langley Parish: Welcome to Kings Langley https://kings-langley.parish.uk/

Wikipedia: https://en.wikipedia.org/wiki/Rudolf_Steiner_School_Kings_Langley



Appendix 1: Environmental Sampling Strategy

Stage I: Pre-excavation

KDK's general environmental sampling strategy is outlined in Section 2.3. Where appropriate a more detailed site specific strategy will be formulated at the start of a project based on the advice of KDK's Environmental Specialist and/or Historic England's Regional Science Advisor. The sampling strategy will:

- Take into account the research aims and objective of each individual project
- Identify the different categories of environmental remained expected to be encountered
- Outline the environmental analysis to be completed

The sampling strategy will be regularly reviewed throughout the excavation to ensure that it remains appropriate to the specific research aims.

Stage 2: Excavation

The sampling strategy outlined during Stage I will be readdressed after the site has been stripped. The updated strategy will be discussed with all on site personnel as well as HHET, the ES and HE where appropriate. The on-site collection and treatment of samples will be as follows:

- Sample sizes will normally comprise 40 litres of material; however, more or less than 40 Litres can be taken if deemed appropriate. <100% of smaller features such as postholes will be collected.
- Samples from wet or waterlogged contexts will be prioritized as these conditions are better suited for the preservation of organic material.
- When excavating human remains, multiple samples will be taken separately and clearly labelled with the areas they represent (e.g. head, pelvis)
- Samples will be placed into clean buckets which will then be labelled inside and out with the site code, context number, sample number and bucket number
- A register of all samples will be maintained and all samples will be recorded individually on KDK's Sample Records Sheet
- All samples will be removed from site and stored within a designated area at the KDK offices
- All unlabelled, duplicated or potentially contaminated samples will be discarded on site
- Modern and post-medieval samples, or those deemed unsuitable for sampling, will not be taken unless these features address specific research aims.

When dealing with waterlogged, insect and pollen, and deeply stratified sediments (e.g. peat) it may be necessary to seek advice from ES, HE and other environmental specialists (e.g. palynologists (pollen specialists) do discuss additional sampling methods.

Stage 3: Post-Excavation

Once excavation is complete, a final sampling strategy will be produced. This will highlight the samples most appropriate for processing and those which are to be deselected. This strategy will be discussed with and approved by HHET and the ES. Some of the samples may be selected for a preliminary assessment where a single bucket of material will be processed to analyse the potential value of the

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sample. At this time if the sample is deemed unsuitable for further processing, no further action will be taken.

All bulk samples will either be subjected to dry sieving, or be processed using a flotation tank. The remaining material from this process will be fully dried, sorted and bagged before being sent to the relevant specialists for analysis (i.e. archaeobotonist, zooarchaeologist etc.) All other aspects of the processing, along with unsuitable samples, are discarded after the report has been approved by the planning archaeologist.



Appendix 2: Archive Collection and Selection Strategy

Project Details:

Name Coombe House, Langley Hill, Kings Langley, Hertfordshire Site Code 840/KLL

Accession number TBC Project Type Watching Brief

Contact David Kaye (Project Manager) or Laura Dodd (Post-ex manager/archivist)

Introduction:

This strategy, which concerns all of the data that is created and the archaeological material recovered during the course of the project, will be agreed between KDK, HHET and the depositing Museum. It is consistent with the projects aims and objectives and local research framework.

An identical version of this Appendix will be created and kept up to date as the project progresses. Updates will be agreed with HHET and the museum.

Digital Data Management Plan

Data Collection (what will be collected and how?):

Data will be collected in line with the Project Brief and WSI standards and requirements. Data acquisition standards are in line with the ADS guide to Good Practice. Specific data will be:

Excel Spreadsheets will be used on site to collect fieldwork data and registers Word documents will be used to produce draft reports which will be finalised in pdf format Digital images will be taken and saved as JPGs

Digital survey data will be presented in an appropriate CAD format and converted to TIFF or PDF as required.

A working project folder will be maintained of all project related data on the company server. Tablets will be used on site and downloaded to the folder on the company server on a daily basis.

Documentation and Metadata:

A summary of all data sources and contributors will be provided as part of the final archive alongside a meta data summary. This will be prepared in line with ADS deposition guidelines.

Ethics and Legal Compliance (how are any ethical, copyright and IPR issues being managed?):

KDK have a GDPR compliant privacy policy which underpins the management of personal data. Personal data is not stored in the project related folders but separately on the company server. Any personal data will be removed from the project archive and permission to use individuals' names in any reporting is gained prior to use.

Copyright of all data created by the team is owned by KDK and permission to include data from external sources is secured on the engagement of that source.

Where formal permission or licence agreements are required for data sharing these will be included in the project documentation.

Storage and Back up (how will data be stored, accessed and backed up during the project?):

Organisational IT is managed by an internal IT and data manager who is responsible for the management and verification of daily back-ups and who supports access to security copies as needed.



The onsite company server is automatically backed up 5 times a day to a secure off site server through an encryption process.

Sufficient data storage is available on the onsite company server, which includes single factor authentication and permissions-based access. The server is accessible by staff on and off site through a secure log-in.

Off site access to the project files on the server is provided to support back up of raw data while fieldwork is ongoing. Where internet access is not possible, the raw data is backed up to a separate hard drive until direct access to the server can be established.

Only KDK staff can access the server. External specialists and contractors are sent whatever documentation they need via email or WeTransfer, none of which contain sensitive information.

Selection and Preservation (what will be retained, shared and/or preserved, what's the long-term plan for data preservation, are ADS informed and have costs been considered?):

The collection and selection strategy, including the data management plan will be reviewed throughout the project and specifically at the end of fieldwork and/or before post excavation work starts and following full analysis. The updated plans will be included in all reporting stages. Prior to deposition the plans will be updated and finalised in agreement with the planning archaeologist, museum, client and ADS if appropriate.

All versions of data will be retained until report approval. Final versions of digitally born data will be archived on ADS. Paper records will be archived at the museum in line with museum guidance. Duplicate documents will be deleted and the remaining data will be retained in the file structure on the company server.

The full costs of archiving in line with museum guidelines have been included in the project costs.

Data Sharing and Accessibility (how will data be shared and made accessible and are there any restrictions):

The project has been added to the OASIS Index of Archaeological Investigations (kdkarcha1-524114) and will be updated as the project progresses. A final version of the approved report will be added to OASIS along with details of the project archive location.

The final version of the report will be supplied to the Historic Environment Record when approved by the planning archaeologists. Any further data which they request will be provided directly. No restrictions to data or data sharing are envisaged at this stage.

Responsibilities (who is responsible for data management):

The project manager is responsible for implementing the data management plan and ensuring it is reviewed at each stage of the project. The data capture, metadata production and data quality is the responsibility of the project team, quality assured by the project manager.

Storage and back up of data in the field is the responsibility of the field team and once data is on the organisational server it is the responsibility of the IT and data manager.

Data archiving is undertaken by the project team in conjunction with the archive officer and the archive officer is responsible for the transfer of the archive to the final repository.

Paper data

All project related paper documentation, for example fieldwork sheets, drawings, photographs, maps, as opposed to administration paperwork, will be archived as part of the document archive with the museum. Duplicate documentation will be recycled and any administrative paperwork will be scanned and retained digitally by KDK.



Small and Blank Projects

Where archaeological work results in no finds or features of archaeological significance a single all in one report will be prepared and, if agreed with the CAO and museum, will be uploaded as the digital archive to OASIS. Also, if agreed, there will be no paper archive deposited with the museum.

For small projects where the digital archive comprises of only digitally born photographs the data will be stored on OASIS using OASIS images.

Materials and Artefacts

The key finds groups and how these will be selected for retention or discard are outlined below:

Find Type	On site selection	Post Excavation selection
Pottery	All pottery sherds will be collected other than obviously post medieval sherds from unstratified contexts unless they appear archaeologically significant All CBM will be collected other than	The majority of pottery collected will be retained for archiving. Exceptions may be made for sherds recovered from unstratified contexts or repetitive and undiagnostic sherds. All pottery will be quantified and subject to specialist input. Deselection will be undertaken in discussion with the specialist, HHET and the museum All collected CBM will be retained, although
CBIVI	obviously post medieval CBM from unstratified contexts unless they appear archaeologically significant. However, where large quantities are found a further discussion between KDK, HHET and the museum may result in an amended approach ie sampling	unidentifiable fragments from poor or unstratified contexts may be discarded subsequent to full quantification, specialist advice and discussion with HHET and the museum
Worked Stone	All worked stone found will be collected	All worked stone will be retained for archiving, in discussion with the museum. All unworked stone will be discarded following quantification
Animal Bone (including worked bone, antler, horn and ivory)	All animal bone found will be collected	All animal bone will be retained. Disposal may be considered for very fragmented and poorly preserved objects or those which have been recovered from unstratified contexts and that have no further intrinsic interest
Ferrous and non-ferrous metals	All metal will be collected	All precious metals will be retained. Other ferrous or non-ferrous metals will be retained with the exception of unidentifiable fragments and those beyond conservation. Also common bulk finds such as nails may be subject to retention of a sample following discussion with the specialist and museum
Glass	All glass objects will be collected other than obviously post medieval glass from unstratified contexts unless they appear archaeologically significant	All items will be retained although post medieval and modern items may be sampled following discussion with HHET and the museum
Clay Pipes	All clay pipes will be collected	All items will be retained unless fragments



Find Type	On site selection	Post Excavation selection
		are plain or from poor or unstratified
		contexts
Worked Wood	All worked wood or other plant derived	All items will be retained unless items are
and other plant	objects will be collected	deemed unsuitable for long term preservation. All items will be checked by a
derived objects		specialist for selection and any discard
		agreed with HHET and the museum
Leather and	All leather and textiles will be collected	All items will be retained unless items are
Textiles		deemed unsuitable for long term
		preservation. All items will be checked by a
		specialist for selection and any discard
0.1		agreed with HHET and the museum
Other	All other items found will be collected	All medieval or older items will be retained.
		Post medieval items will be discussed with
		HHET and the museum to agree retention
Environmental	40l samples will be taken from	strategy Tangible artefacts found through the
samples	archaeologically significant features in line	environmental processing will be retained
'	with the agreed sampling strategy, see	for archiving, this includes the flots from
	Appendix 3 for details. This means that	archaeobotanical analysis
	environmental samples will not be taken	, ,
	routinely from backfilled contexts unless	All other retention from the processing will
	there are archaeologically significant	be discarded
	reasons to do so. Environmental sampling	
	will focus on areas of naturally silted fills	
	and where organic matter, charcoal and	
	carbon are more likely to be found	
	The Environmental Specialist will be	
	engaged to discuss more detailed	
	strategies in areas of specific interest if	
	they arise	
	Securely stratified deposits that contain	
	dating evidence will be targeted, particularly corn driers, hearths, kilns, pits	
	and cesspits, of all periods across the site	
	Different parts or layers in kilns /ovens will	
	be sampled to examine function	
	10 litre samples for insect analysis from	
	waterlogged deposits if present, and	
	additional samples for plant macrofossils may also be taken.	
	Pollen samples will be taken from a	
	representative selection of contexts of	
	different potential time spans	
	20% of the pre-medieval quarry pits, if	
	present, will be sampled to determine the	
	presence of mineralised material	



Appendix 3: Initial Health and Safety Risk Assessment

In accordance with current legislation and KDK's Health and Safety Policy, an Initial Health and Safety Risk Assessment has been prepared.

The Accident and Emergency Unit closest to the site is:

Watford General Hospital
Vicarage Road, Watford
Hertfordshire, WD18 0HB
Tel: 01923 244366

A risk assessment for tasks and hazards typical to this type of project appears on the following pages. An assessment of site-specific hazards appears below.

Site-Specific Hazards:	Risks:	Mitigation:	
Close proximity to machinery	Danger of individuals being hit	 Clearly signal instructions / intentions to plant operators. Maintain safe distance from plant. Use appropriate PPE 	
Deep features	Collapse of sides; falling into features	 Maintain awareness of surroundings Wear appropriate PPE Shore sides if needed 	
NB: Asbestos, contaminants etc	Serious health risks	The developer is to ensure that the site is free of hazardous materials. Where such material is discovered during fieldwork, the developer will remove it or make it safe before KDK continues with onsite work. KDK to be informed of the use of pesticides, insecticides, herbicides or similar substances on the site prior to the start of any fieldwork.	
Project:	Coombe House, Langley Hill, Kings Lang	gley, Hertfordshire	
Project Code:	840/KLL		
Date of Assessment:	08.04.2024		
Assessed By:	Derek Watson PhD		
Signed by site staff:			



Task	Hazard	Adverse Effect	People at Risk	Likelihood × Consequence = Risk Score		ence	Actions to minimise risk	Residua Risk
Travel to and from workplace	Traffic accident	Major	Field staff, visitors, public	2	4	8	 Maintain vehicles in roadworthy condition. Ensure suitable insurance is in place. Only qualified staff to drive vehicles. Staff to observe speed limits and other traffic regulations 	4
Access/egress workplace	Moving vehicles and plant	Catastrophic	Field staff, visitors	2	5	10	 Observe site speed limits. Park in designated area. Transport by vehicle to excavation area if required. 	5
Access/egress workplace	Reversing vehicles and plant	Catastrophic	Field staff, visitors	2	5	10	 Observe site speed limits. Park in designated area. No reversing without assistance/supervision. 	5
General site work	Trips/slips	Minor	Field staff, visitors	3	2	6	 Ensure good housekeeping. Cease work if site conditions are extremely poor. Use vehicles to traverse uneven ground if possible. Use appropriate footwear. 	4
General site work	Manual handling	Moderate	Field staff	3	4	12	 Use equipment to transport heavy loads if possible. Train staff to use equipment. Instruct staff in correct lifting techniques. Monitor staff compliance. 	4
General site work	Adverse weather	Minor	Field staff, visitors	2	2	4	Wear appropriate clothing.Provide welfare	2



		Archaeologic	al Fieldwo	rk: Ge	neral	Hazard	ds	
Task	Hazard	Adverse Effect	People at Risk	•		at Risk Consequence risk	Actions to minimise risk	Residual Risk
							facilities Cease work in very adverse weather.	
General site work	Presence of contaminants, pathogens and other hazardous substances	Major	Field staff	2	4	8	 Review results of available geotechnical assessments. Conduct COSSH assessment if hazard identified. Inform staff of identified hazards. Restrict working areas if necessary. Provide welfare/hygiene facilities. Monitor staff health. Use appropriate PPE. 	4
General site work	Environmental pollution	Moderate	Field staff, visitors, public	2	4	8	 Dampen down dry surfaces. Restrict hours of plant operation if noise is an issue. Seek to minimise landfill. 	2
General site work	Fire	Catastrophic	Field staff, visitors, public	2	5	10	 Compile fire risk assessment if required. Maintain good housekeeping Provide suitable firefighting equipment 	5