



Written Scheme of Investigation for Archaeological Evaluation: Stage 1

Land to Rear of 13-21 High Street
Irthlingborough
Northamptonshire



Site Data

KDK project code:	808/IHS		
OASIS ref:	kdkarcha1-520559	Event/Accession no:	ENN111347
County:	Northamptonshire		
Village/Town:	Irthlingborough		
Civil Parish:	Irthlingborough		
NGR (to 8 figs):	494641 270650		
Present use:	Car park		
Planning proposal:	Erection of block of 8 flats with associated vehicular access, parking and landscaping		
Local Planning Authority:	North Northamptonshire Council		
Planning application ref/date:	20/00997/FUL		
Client:	Davinder Mander Resham Ltd 49 Station Road Polegate, BN26 6EA		

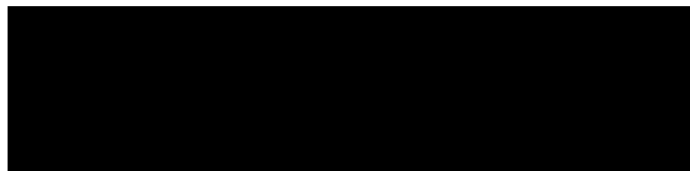
Quality Check

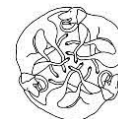
Author	Ellen Shlasko PhD	Version	808/IHS/1.1	Date	10.11.2023
Editor	David Kaye BA ACIfA	Version	808/IHS/1.1	Date	14.11.2023
Revision		Version		Date	

© KDK Archaeology Ltd 2023 No part of this document is to be copied in any way without prior written consent.

Every effort has been made to provide as complete and as accurate a report as possible. However, KDK Archaeology Ltd cannot accept any liability in respect of, or resulting from, errors, inaccuracies, or omissions contained in this document.

© Ordnance Survey maps reproduced with the sanction of the Controller of His Majesty's Stationery Office.
KDK Archaeology Licence No. 100053538





CONTENTS

1. Introduction	3
2. Aims and Methods	7
3. Archaeological and Historical Background	14
4. Reporting	18
5. Archive	19
6. Staffing.....	20
7. Programme.....	23
8. Other Requirements	24
9. References.....	26

Figures:

1. General location	4
2. Site location.....	5
3. Development Plan.....	6
4. Trench location plan	13
5. HER data plan	16
6. HER data plan detail.....	17

Appendices:

1. Environmental Sampling Strategy.....	28
2. Archive Collection and Selection Strategy	30
3. Initial Health & Safety Risk Assessment	34



1 Introduction

1.1 This Written Scheme of Investigation has been prepared on behalf of Davinder Mander as a specification for Archaeological Evaluation at Land to the Rear of 13-21 High Street, Irthlingborough, Northamptonshire. 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 in Briefs (NNC 2023a and NNC 2023b) prepared by Northamptonshire County Archaeological Team (NCAT) acting as Archaeological Advisor (AA) to the Local Planning Authority (LPA), North Northamptonshire Council (NNC). The relevant planning application reference is 20/00997/FUL.

This evaluation forms the first stage of an archaeological assessment of the site, and further stages may be required should significant remains be encountered.

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 & 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 site is located south of the High Street in the town and civil parish of Irthlingborough, North Northamptonshire Council administrative district, at National Grid Reference 494641 270650 (Fig. 1). It is within the bounds of the Irthlingborough Conservation Area.

Description

The site is currently in use as a surface car park. It lies to the south of the High Street and is bound to the north by Nos. 13-29 High Street, on the east by residential properties facing St Peter's Way, on the south by the Louisa Lilley Homes and on the west by industrial units (Fig. 2).

Geology and Topography

Most of the site is underlain by sedimentary bedrock of the Rutland Formation – mudstone. At the southern end of the site the underlying geology changes to Wellingborough Limestone Member, consisting of interbedded limestone and mudstone. No superficial geology has been recorded (<https://geologyviewer.bgs.ac.uk/>). The site slopes slightly downwards from northwest to southeast, at an approximate elevation of 58m AOD.

Proposed Development

The proposal calls for the erection of block of 8 flats with associated vehicular access, parking and landscaping (Fig. 3).



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

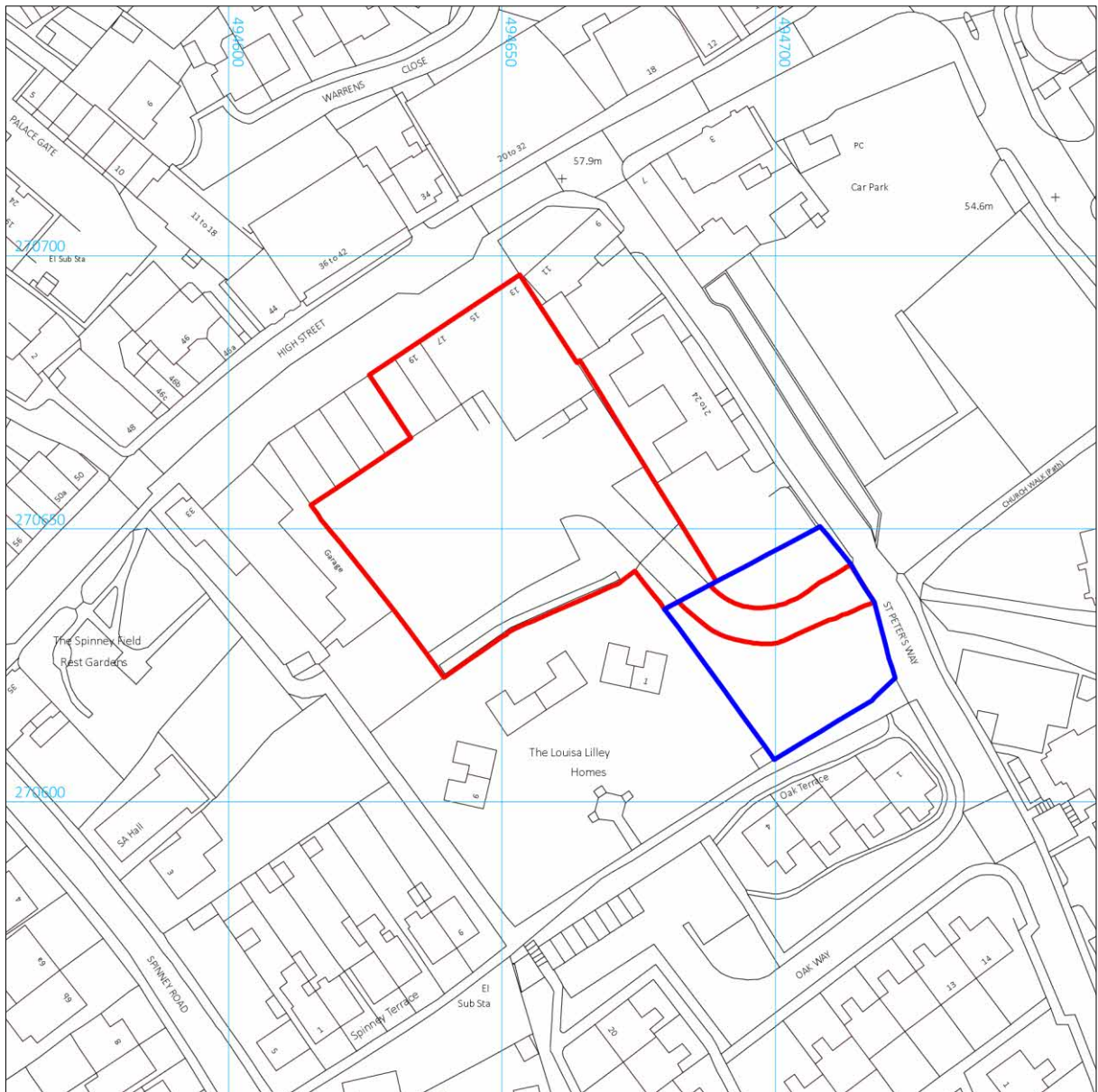


Figure 2: Site location (scale 1:1250. Other land owned by applicant outlined in blue)

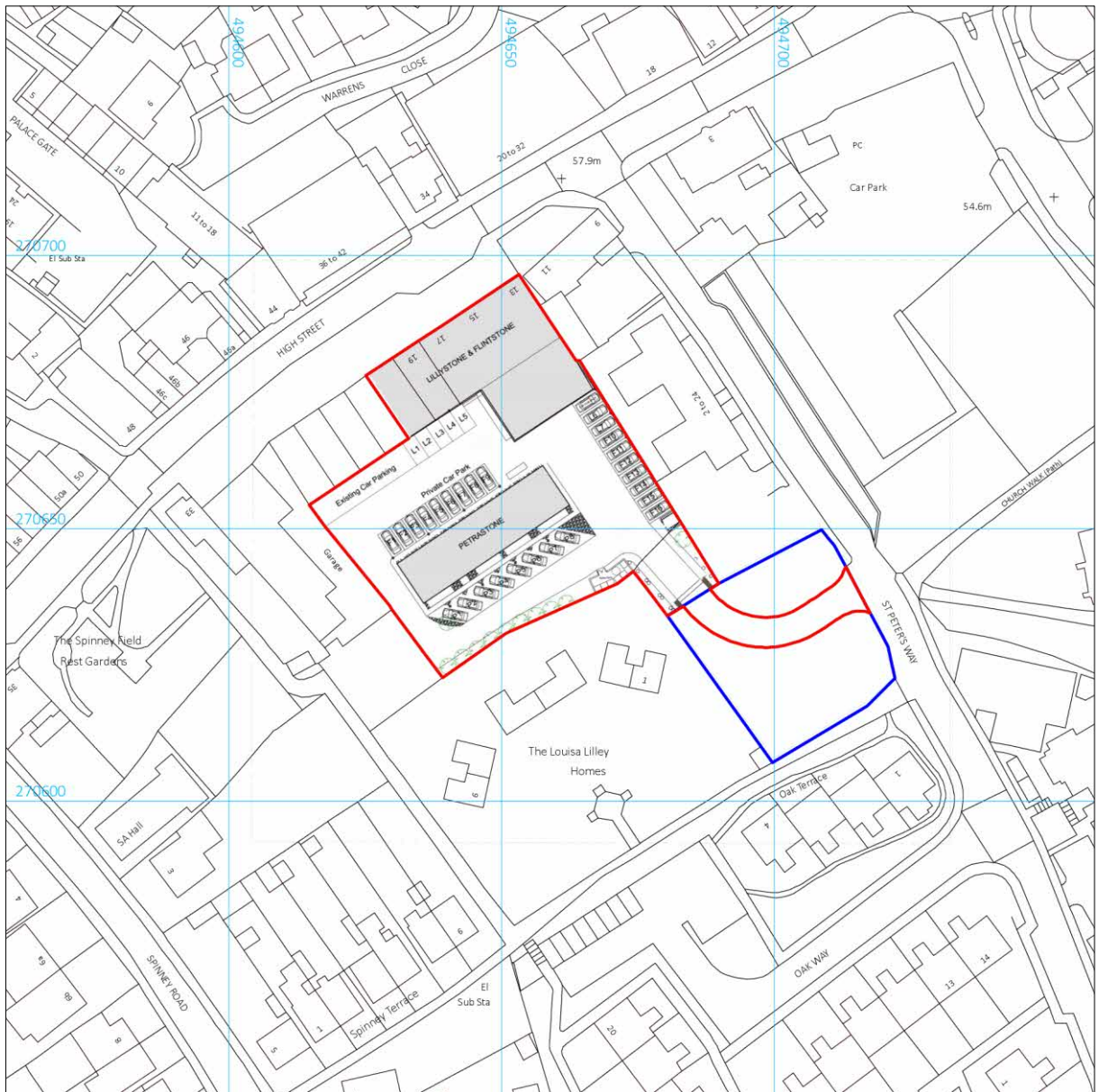
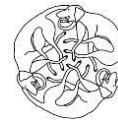


Figure 3: Proposed development (scale 1:1250)



2 Aims and Methods

2.1 Aims

In line with the requirements of the Brief (NNC 2023), the aims of the project are:

- To establish the date, nature and extent of activity or occupation in the development site
- To establish the relationship of any remains found to the surrounding contemporary landscapes
- To recover artefacts to assist in the development of type series within the region
- To recover palaeo-environmental remains to determine local environmental conditions as an intrinsic part of the investigation.

In addition, the following site-specific research queries from the Regional Research Agenda will also be considered

(<https://archaeologydataservice.ac.uk/researchframeworks/eastmidlands/wiki>):

- 5.3.2: How does the distribution of towns correlate with Iron Age foci, and how far may their social, political and economic roles have overlapped?
- 6.5.1: How may Anglo-Saxon and British communities have utilised late Roman towns and their immediate environs?
- 8.1.1: Can we elucidate the roles of towns as social, administrative, industrial and commercial centres, their integration within regional marketing systems and their relationship to communication routes?
- 8.5.6: What can we deduce from factory/non-factory production data about the changing economy (especially patterns of marketing and consumption)?

2.2 Standards

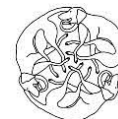
The work will conform to the following requirements:

- The Design Brief
- The relevant sections of the Chartered Institute for Archaeologists' Standard & Guidance for Archaeological Field Evaluation (CIfA 2020a)
- The Chartered Institute for Archaeologists' Code of Conduct (CIfA 2022)
- Current Historic England guidelines (EH 2008, HE 2015)
- Data Protection Act 2018

2.3 Methods

In line with the requirements of the Brief, the methods used will be as follows:

- Stage One: An archaeological field evaluation of the site consisting of a single 25m x 1.8m, located within the footprint of the proposed building, plus an appropriate contingency to clarify features extending beyond the trench if required (Fig. 4).
- Stage Two: An appraisal of the results of the evaluation and their significance with regard to the proposed development. This in turn may lead to the definition of a programme of investigation and recording of archaeological remains which will be destroyed by the development. NCAT may prepare a Brief for the next phase of investigation that will also cover a programme of post-excavation, analysis and publication



Stage Three: The implementation of an agreed programme of archaeological investigation and recording based on the Brief

If heritage assets of archaeological interest are identified by the evaluation the implementation of a programme of archaeological investigation shall be secured in accordance with a WSI which will have been submitted and approved by the LPA.

Excavation

The trenches will be machine excavated under close archaeological supervision to the archaeological horizon or the natural geology, whichever is reached sooner. Due regard will be given to current Health and safety guidelines on the maximum depth of excavation. The machine, which will be of a suitable size, will be fitted with a toothless ditching bucket unless a toothed bucket or breaker is required to remove more solid material. The spoil will be scanned for artefacts.

The trenches will be hand cleaned to produce a base plan, which will be available for the first monitoring visit.

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 10% 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 NCAT.

Bulk sampling in order to retrieve organic and environmental material will be undertaken as appropriate and following Historic England guidance (Campbell et al. 2011).

The trenches will not be backfilled before they have been inspected by NCAT or agreement has otherwise been reached.

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

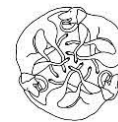
The location of all deposits will be planned at 1:20 Sections will generally be drawn at 1:10, unless the size of the section is more appropriately illustrated at 1:20. Plastic film will be used for manual site drawings. Digital surveying equipment may also be used and the results presented in a CAD format.

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 compiled 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. All finds will be cleaned, marked, sorted and analysed in accordance with the practices and standards described in Preparation of Archaeological Archives; Selection, Retention and Dispersal of Archaeological Collections (1993), the ClfA Standards and Guidance for the collection, documentation, conservation and research of archaeological materials (2020b) and Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation (Brown 2011).

In most cases the conservation of artefacts will take place after processing, but primary conservation of delicate artefacts may be required on site. Radiography may be required to identify some objects. 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.

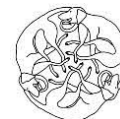
If appropriate, environmental samples will be taken from features to enable their date, nature, and condition to be described and analysed. Samples will be taken from the fills of features where organic materials may be preserved, such as pits, ditches and other deposits, especially if waterlogged.

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 Planning Archaeologist, 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 coarse-mesh 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, NCAT and the Depositing Museum. This strategy is outlined in Appendix 2.

Scientific Dating

A number of scientific dating techniques are available for scientific dating. 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. A site-specific strategy will be formulated with specialist guidance from the appropriate HE Regional Science Advisor.

Human Remains

An exhumation licence 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, during Archaeological Evaluation, any investigation or removal of remains will be agreed between KDK, the client, NCAT 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

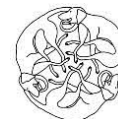
The security of the archaeological remains, the archive and the site as a whole will be safeguarded as much as possible. The security of individuals on site, whether KDK staff or not, will perforce take precedence.

Outreach

In line with the requirements of the brief, and subject to agreement with the client, a public outreach programme will be formulated. This may include:

- Press releases
- Exhibitions
- Public talks/lectures
- Site open days (subject to access and/or Health & Safety considerations)
- Leaflets or brochures

Acknowledgement will be made to the role of the LPA and NCAT in facilitating the work, and to the client for funding it.



2.4 Requirements for the Building Contractor

- Trenches to be pulled with a toothless ditching bucket
- Trenches to be taken down in spits under archaeological supervision
- Trenches to be excavated to archaeology or natural geology whichever comes first
- Trenches not to be tracked or driven over
- Spoil to be stockpiled at least 1m from the trench edge
- Trenches to be backfilled only when released by KDK

2.5 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. All post-excavation work will follow the formula laid out in Historic England's Management of Research Projects in the Historic Environment (2015).

All Saxon and later ceramics should be classified in accordance with the Northamptonshire Ceramic Type Series. The MPRG's Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics will be adhered to (Slowikowski et al 2001).

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).



Following Historic England guidelines a provisional sum based on 75% of the fieldwork costs has been included as a budget figure for post-excavation analysis. This will be reviewed when the proposal for analysis and publication has been agreed. Appropriate resources should be made available to enable the agreed programme of post-excavation analysis to be undertaken. The cost of fieldwork covers all work up to and including the preparation of the Updated Project Design if required containing proposals for further analysis and publication (see Section 4).

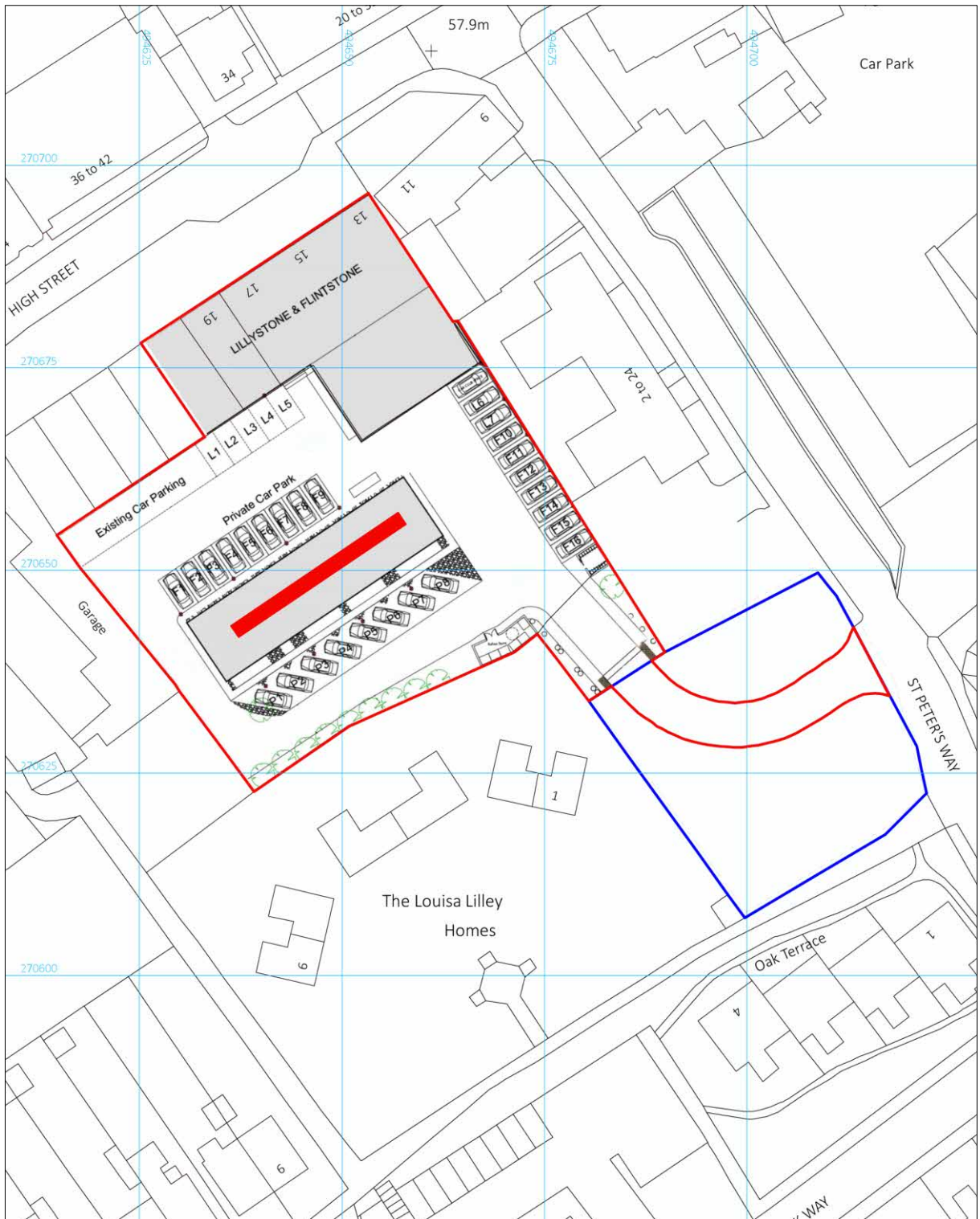
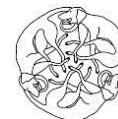


Figure 4: Proposed trench location plan (scale 1:1250)



3 Archaeological and Historical Background

- 3.1 The proposed development site is located in the historic core of Irthlingborough, just to the west of the Grade I listed Church of St Peter. For most of its history, beginning in the early medieval period, Irthlingborough was a small, agricultural settlement, but the growth of the boot and shoe industry in the 19th century led to urban expansion. Although the town originated in the Saxon period, there is archaeological evidence of Iron Age and Roman settlement in the area.

This section has been compiled with information from the Northamptonshire HER, the Irthlingborough Conservation Area Appraisal (The Conservation Studio 2009), the Irthlingborough Extensive Urban Survey (Ballinger 2000) and reliable online sources.

- 3.2 Iron Age-Roman (600BC – c.AD450)

There is an Iron Age hillfort at Crow Hill, northeast of the town, and the earliest archaeological evidence identified within the study area (i.e. 500m of the proposed development site), also dates from the Iron Age. Sites to the north (MNN4387) and east (MNN4303) revealed roundhouse ring ditches, enclosures and other features containing Iron Age pottery, which has also been found elsewhere in the town (MNN27123). These sites indicate continuous occupation into the Roman period, which is also represented in Irthlingborough by a possible villa (MNN141433) south of the town centre, and another possible building near the site of All Saints Church (MNN32326), to the east of the town centre. St Peter's Way, which forms the eastern boundary of the site, may follow the route of a Roman road from Lowick to Irchester: Viatores route 570 (MNN9119).

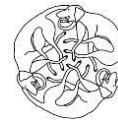
- 3.3 Saxon (c.450 - 1066)

Archaeological evidence indicates that the Crow Hill hillfort was also used during the early medieval period, and this is believed to be the site Yrtlingaburg, a royal estate during Offa's reign in the late 8th century. By the time of the Domesday book, this area consisted of two manors belonging to Peterborough Abbey. Together the two manors were home to the households of seventeen villagers, four freemen, ten smallholders and two slaves. They worked large areas of ploughlands, fifteen ploughs in one and at least eight in the other, and the river provided power for two mills (www.opendomesday.org). This grant pre-dated the Norman invasion, as the abbey was listed as the tenant-in-chief of both manors in both 1066 and 1086.

- 3.4 Medieval (1066 - 1500)

The two manors mentioned in Domesday were represented by two parish churches, the Church of St Peter, located just to the east of the proposed development site (MNN108549), and the Church of All Saints, which was located east of the settlement near the river Nene. An ecclesiastical college was added to St Peter's in the 14th century (The Conservation Studio 2009: 9).

Irthlingborough was an agricultural community throughout the medieval period. As noted by Ballinger (2000: 6), the village never had a market, despite the presence of a so-called market cross (MNN108445). The shaft of the surviving 13th century village cross was traditionally believed to be used to measure the village's common meadows (Page 1930). As an agricultural settlement, the village suffered during a series of failed harvests at the end of the medieval period (The Conservation Studio 2009: 9), which eventually led to the abandonment of All Saints Church.



3.5 Post-medieval-Modern (1500 - present)

In the late 18th century, the economy of Irthlingborough began to diversify, with the beginnings of a boot and shoe making industry (Ballinger 2000: 6). Originally a cottage industry, by the end of the 19th century there were substantial, purpose-built factories producing footwear or materials for boot and shoe manufacturing throughout the town. The proposed development site was occupied by one such factory until the middle of the 20th century (MNN100903). Ordnance Survey maps from late 19th century show multiple structures on the site, including a large factory building facing the High Street and a row of buildings fronting on St Peter's Way.

By the middle of the 20th century, however, the boot and shoe industry had declined. The factory buildings in Irthlingborough were torn down or converted to other uses. In the early 1930s, the Louisa Lilley Homes (MNN100997), almshouses funded by a bequest from Louisa Lilley, daughter of the founder of the Lilley Boots and Shoes manufactory.

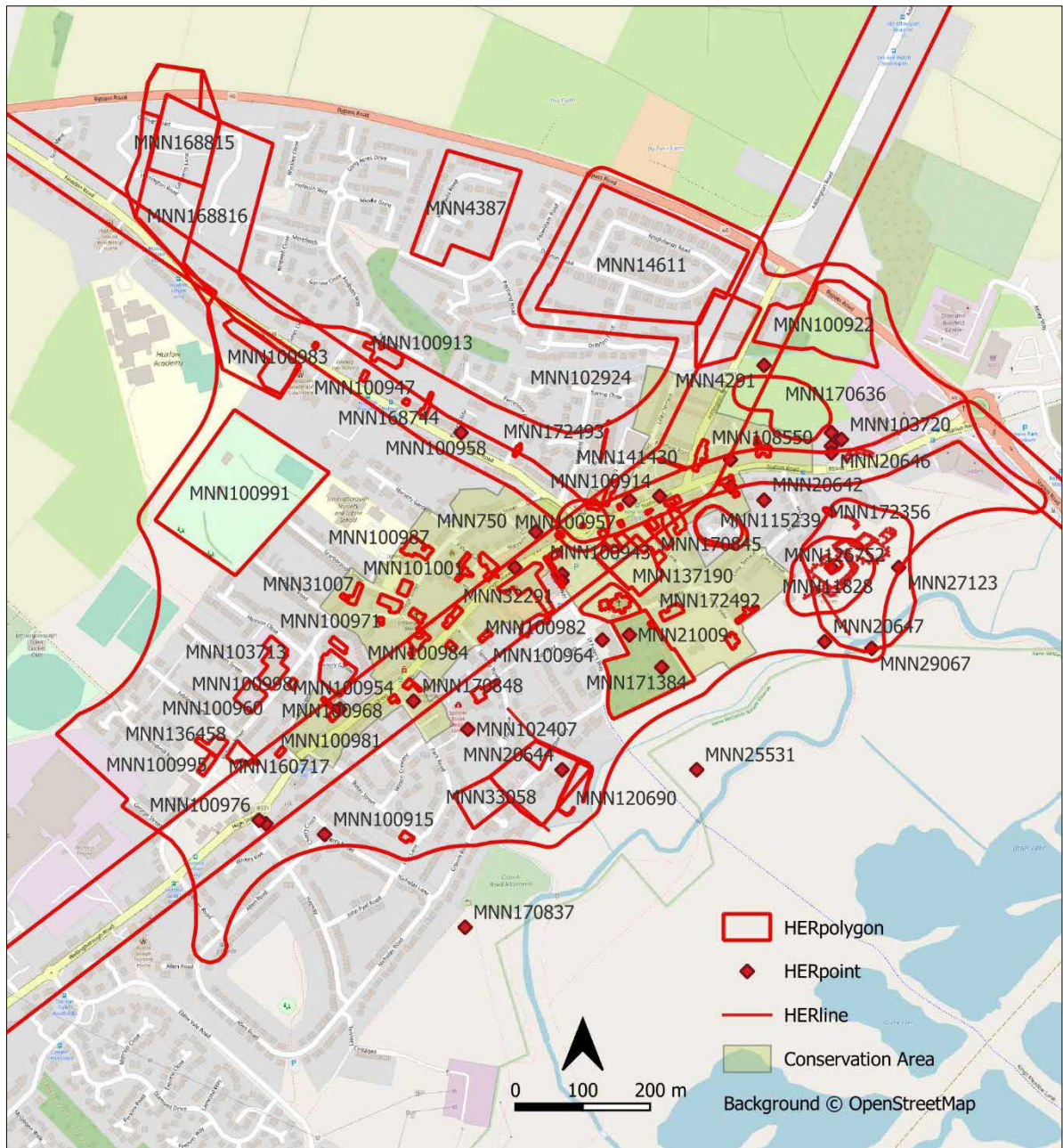
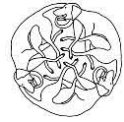


Figure 5: HER data plan (scale 1:10,000)

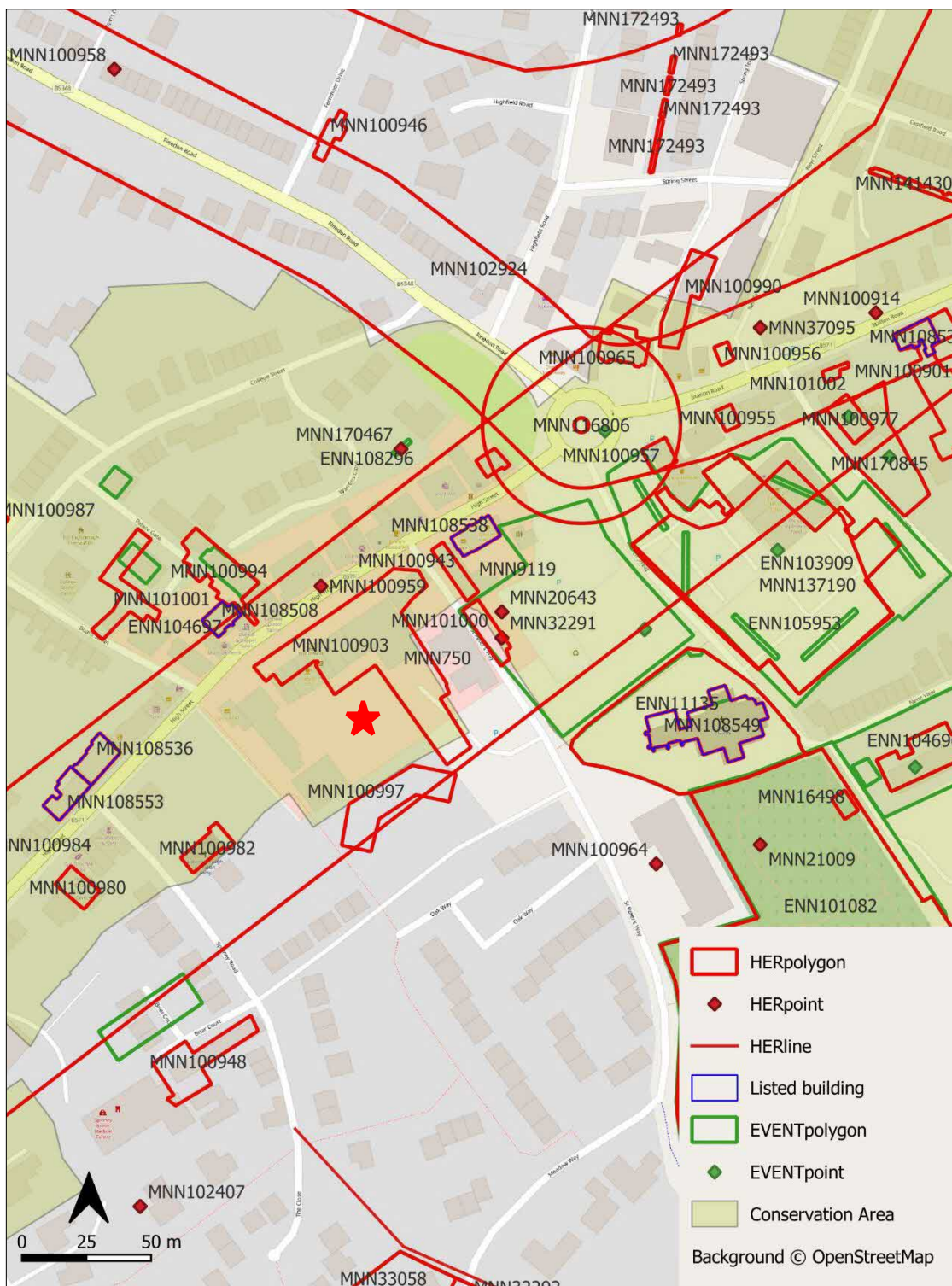
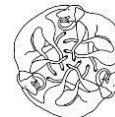
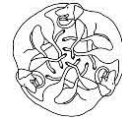


Figure 6: HER data plain detail, site marked with red star (scale 1:2500)



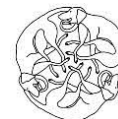
4 Reporting

- 4.1 A report will generally be compiled within 2 months of the completion of the fieldwork. This will bring together all the field-work and post-excavation results, and 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)
 - 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
- 4.2 Electronic and/or paper copies of the report will be provided for the client, NCAT and the HER as required.
- 4.3 Interim reports on the project will be submitted to any relevant regional and county journals (e.g. Northamptonshire Archaeology), 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.



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.
- 5.3 To assist with the creation and curation of the project's archive, the Northamptonshire Historic Environment Record office has been contacted to obtain an Event number (ENN). The Northamptonshire Archaeological Research Centre NARC use this number as a unique identifier linking all physical and digital components of the archive. It will be shown on all paperwork created on site (context forms and plans etc), on relevant ensuing reports and on the OASIS data collection form.
- 5.4 The Northamptonshire Archaeological Research Centre (NARC) has been contacted at the start of the project to make preliminary deposition arrangements. On completion of the project, the archive will be prepared for long term storage in accordance with guidelines prepared by the ClfA (2020c), the UK Institute of Conservation (Walker 1990), the Museums & Galleries Commission (Paine 1992), and will conform to the standards outlined in Donnelly-Symes (2021), MoRPHE Project Planning (HE 2015) and Brown (2011).
- 5.5 The digital archive for this project will be uploaded to the Archaeological Data Service in line with the Northamptonshire Archaeological Resource Centre Standards (2021).



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

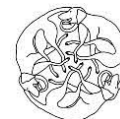
Laura graduated from the University of Reading in 2013 with a BA in archaeology and continued her studies at Durham University where she achieved an MSc in Palaeopathology. She has a particular interest in the isotopic analysis of human remains and during her time at Durham assisted in a project to identify 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 BBAO.

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

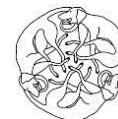
Chris Martin-Taylor graduated from Bournemouth University in 2015 with a BSc in Archaeology. Prior to that, he studied for a foundation degree in Applied Architectural Stonemasonry and Conservation in Dorchester and Weymouth, which included practical training in stonemasonry and historic building conservation. 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

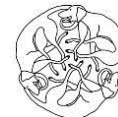
Pat joined KDK as an administrative assistant in 2017 bringing with her a wealth of experience from a long and varied career. Apart from her administrative and financial skills, Pat also provides specialist knowledge in post-medieval porcelain and small finds. She has been the office manager since 2021.



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

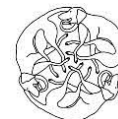


7 Programme

- 7.1 A programme of works will be agreed with NCAT, the client and KDK. KDK will keep NCAT and the client informed of progress throughout the project.
- 7.2 Once the Written Scheme of Investigation has been approved by NCAT, a start date will be agreed with the client allowing NCAT at least two weeks' notice in order to schedule monitoring visits. All monitoring visits by NCAT will be agreed with the client.
- 7.3 The client will allow site access by NCAT and archaeological specialists as required and provide detailed information regarding access requirements to ensure site protocols are not breached.
- 7.4 Proposed Programme

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

Stage	Person-Days	Staff
Trial trenching	2	Site Director/Site Assistant
Report preparation	2	Site Director
Specialist reports	As required	Appropriate specialist
Archive	1	Archivist



8 Other Requirements

8.1 Health & 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 NCAT. 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 NCAT 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. NCAT will be advised of the start date and the anticipated duration of the project at least one week before the commencement of the fieldwork. NCAT 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.



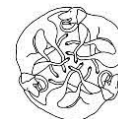
8.6 Human Remains

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 licence 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 & Specifications

Association of Local Government Archaeological Officers (ALGAO) 2003 Standards for Field Archaeology in the East of England. East Anglian Archaeology Occasional Paper 14

Brickley M & McKinley J I 2004 Guidelines to the Standards for Recording Human Remains. Chartered Institute for Archaeologists Technical Paper.

Brown, D H 2011 Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation: revised. Institute for Archaeologists on behalf of the Archaeological Archives Forum.

Campbell G, Moffett L & Straker V 2011 Environmental Archaeology: a guide to the theory and practice of methods from sampling and recovery to post-excavation. Portsmouth: English Heritage

CIfA 2019 Archaeological Archive Selection Toolkit. Reading: Chartered Institute for Archaeologists

CIfA 2020a Standard and Guidance for Archaeological Field Evaluation. 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

Donnelly-Symes, B 2021 Northamptonshire ARC: Archaeological Archives Standard Northamptonshire County Council

EH 2008 The Management of Research Projects in the Historic Environment. PPN3: Archaeological Excavation. London: English Heritage

EH 2010 Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood

HE 2015 The Management of Research Projects in the Historic Environment: the MoRPHE Project Managers' Guide. London: Historic England

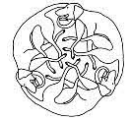
McKinley J.I. & Roberts C. 1993 Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains. Chartered Institute for Archaeologists Technical Paper 13

NNC 2023a Brief for the Archaeological Field Evaluation of Land at the Car Park Rear of High Street, St Peter's Way, Irthlingborough, Northamptonshire. Northampton: North Northamptonshire Council

NNC 2023b Brief for a Programme of Archaeological Investigation of Land at the Car Park Rear of High Street, St Peter's Way, Irthlingborough, Northamptonshire. Northampton: North Northamptonshire Council

Paine C. (ed) 1992 Standards in the Museum Care of Archaeological Collections. London: Museums & Galleries Commission

Slowikowski, A. M. Nenk, B. Pearce, J. 2001 Minimum Standards for the Processing, Recording, Analysis and Publication of post-Roman Ceramics (MPRG Occasional Paper 2)



Society of Museum Archaeologists 1993 Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland. The Society of Museum Archaeologists

Walker K. 1990 Guidelines for the Preparation of Excavation Archives for Long-Term Storage. London: United Kingdom Institute for Conservation, Archaeology Section

Watkinson D. & Neal V. 1998 First Aid for Finds. Hertford & London: Rescue

Secondary Sources

Ballinger J 2000 Irthlingborough: Northamptonshire Extensive Urban Survey. Northampton: Northamptonshire County Council: <https://archaeologydataservice.ac.uk> (accessed 09.11.2023)

British Geological Survey (BGS): <https://geologyviewer.bgs.ac.uk/> (accessed: 09.11.2023)

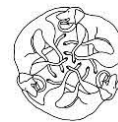
The Conservation Studio 2009 Proposed Irthlingborough Conservation Area Character Appraisal. Cirencester: The Conservation Studio

Domesday Book: www.opendomesday.org

East Midlands Research Framework:

<http://archaeologydataservice.ac.uk/researchframeworks/eastmidlands/wiki/>

Page W 1930 'Parishes: Irthlingborough', pp 207-214 in A History of the County of Northampton: Volume 3. British History Online <http://www.british-history.ac.uk/vch/northants/vol3/pp207-214> [accessed 09.11.2023].



Appendix 1: Environmental Sampling Strategy

Stage 1: 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

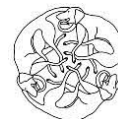
The sampling strategy outlined during Stage 1 will be readdressed after the site has been stripped. The updated strategy will be discussed with all on site personnel as well as NCAT, the ES and HE where appropriate. The on-site collection and treatment of samples will be as follows:

- 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.

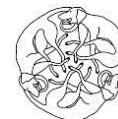
Stage 3: Post-Excavation

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 NCAT 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 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. archaeobotanist, zooarchaeologist etc.) All other aspects of the processing, along with unsuitable samples, are discarded after the report has been approved by the planning archaeologist.

If a second phase of work is required after the Archaeological Investigation, (i.e. Strip, Map and Sample Excavation) collected samples may be processed when this is complete.



Appendix 2: Archive Collection and Selection Strategy

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

Digital Data

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.

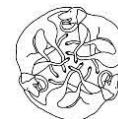
Storage and Back up (how will data be stored, accessed and backed up during the project?):

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 (kdkarcha1-520559) 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

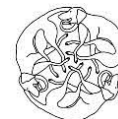
All project related paper documentation, for example fieldwork sheets, drawings, black and white photographs, maps, as opposed to administration paperwork, will be archived as part of the document archive with the museum. Duplicate documentation will be recycled and any administrative paperwork will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

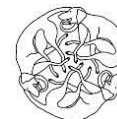
For small projects where the digital archive comprises of only digitally born photographs the data will be stored on OASIS using OASIS images.

Materials and Artefacts

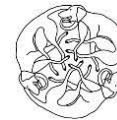


The key finds groups and how these will be selected for retention or discard are outlined below:

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	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, NCAT and the museum
CBM	All CBM will be collected other than obviously post medieval CBM from unstratified contexts unless they appear archaeologically significant. However, where large quantities are found a further discussion between KDK, NCAT and the museum may result in an amended approach ie sampling	All collected CBM will be retained, although unidentifiable fragments from poor or unstratified contexts may be discarded subsequent to full quantification, specialist advice and discussion with NCAT 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 NCAT and the museum
Clay Pipes	All clay pipes will be collected	All items will be retained unless fragments are plain or from poor or unstratified contexts
Worked Wood and other plant derived objects	All worked wood or other plant derived objects will be collected	All items will be retained unless items are deemed unsuitable for long term preservation. All items will be checked by a specialist for selection and any discard agreed with NCAT and the museum
Leather and Textiles	All leather and textiles will be collected	All items will be retained unless items are deemed unsuitable for long term preservation. All items will be checked by a



Find Type	On site selection	Post Excavation selection
Other	All other items found will be collected	specialist for selection and any discard agreed with NCAT and the museum All medieval or older items will be retained. Post medieval items will be discussed with NCAT and the museum to agree retention strategy
Environmental samples	<p>40l samples will be taken from archaeologically significant features in line with the agreed sampling strategy, see Appendix 3 for details. This means that environmental samples will not be taken routinely from backfilled contexts unless there are archaeologically significant 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</p> <p>The Environmental Specialist will be engaged to discuss more detailed strategies in areas of specific interest if they arise</p> <p>Securely stratified deposits that contain dating evidence will be targeted, particularly corn driers, hearths, kilns, pits and cesspits, of all periods across the site</p> <p>Different parts or layers in kilns /ovens will be sampled to examine function</p> <p>10 litre samples for insect analysis from waterlogged deposits if present, and additional samples for plant macrofossils may also be taken.</p> <p>Pollen samples will be taken from a representative selection of contexts of different potential time spans</p> <p>20% of the pre-medieval quarry pits, if present, will be sampled to determine the presence of mineralised material</p>	<p>Tangible artefacts found through the environmental processing will be retained for archiving, this includes the flots from archaeobotanical analysis</p> <p>All other retention from the processing will be discarded</p>



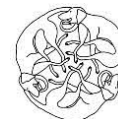
Appendix 3: Initial Health & Safety Risk Assessment

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

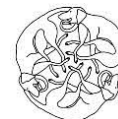
The Accident and Emergency Unit closest to the site is:	Kettering General Hospital Rothwell Road Kettering, Northamptonshire NN16 8UZ Note: The availability of the A&E is not known right now. Please call 111 for advice before traveling.
---	---

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.

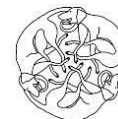
Site-Specific Hazards:	Risks:	Mitigation:
NB: Asbestos, contaminants etc	Serious health risks	The developer is to ensure that the site is free of hazardous materials. Where such material is discovered during fieldwork, the developer will remove it or make it safe before KDK continues with onsite work. 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:	Archaeological Evaluation, Land to rear of 13-21 High Street, Irthlingborough, Northamptonshire	
Project Code:	808/IHS	
Date of Assessment:	10.11.2023	
Assessed By:	Ellen Shlasko	
Site staff to sign:		



Archaeological Fieldwork: General Hazards								
Task	Hazard	Adverse Effect	People at Risk	Likelihood × Consequence = Risk Score			Actions to minimise risk	Residual Risk
Travel to and from workplace	Traffic accident	Major	Field staff, visitors, public	2	4	8	Ensure suitable insurance is in place. Maintain vehicles in good condition. Staff to observe 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 appropriate footwear. Be mindful of environment	4
General site work	Manual handling	Moderate	Field staff	3	4	12	Instruct staff in correct lifting techniques. Use suitable equipment to transport heavy loads. Train staff to use equipment.	4
General site work	Adverse weather	Minor	Field staff, visitors	2	2	4	Wear appropriate clothing. Provide welfare facilities. Cease work in very adverse weather.	2
General site work	Presence of contaminants, pathogens and other hazardous substances	Major	Field staff	2	4	8	Review results of available geotechnical assessments. Conduct COSHH 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



Archaeological Fieldwork: General Hazards								
Task	Hazard	Adverse Effect	People at Risk	Likelihood × Consequence = Risk Score			Actions to minimise risk	Residual Risk
General site work	Environmental pollution	Moderate	Field staff, visitors, public	2	4	8	Dampen down dry surfaces. Restrict hours of plant operation as necessary 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
Soil stripping	Excavating plant	Catastrophic	Field staff, visitors	3	5	15	Induct plant operators Identify designated routes for plant movement. Clearly signal instructions / intentions to plant operators. Maintain safe distance from plant. Use appropriate PPE.	
Soil stripping	Live services	Catastrophic	Field staff	3	5	15	Obtain service maps Use CAT scanner to locate services.	5
Soil stripping	Power lines	Catastrophic	Field staff	3	5	15	Observe HSE guidelines for plant operation in vicinity of power lines. Establish goal posts to constrain plant movement.	5
Soil stripping	Undermining structures	Catastrophic	Field staff, visitors, public	3	5	15	Leave a suitable gap between excavation and adjacent structures (e.g. at least 5m). Locate trenches outside tree canopy.	5
Soil storage	Subsidence	Catastrophic	Field staff, visitors, public	3	5	15	Induct plant operators Identify designated routes for plant movement. Identify suitable storage areas away from the edges of excavation. Compact spoil and grade slopes of soil stores.	5
Hand excavation	Human remains	Major	Field staff	2	4	8	Instruct staff in appropriate protocols and hygiene Provision of welfare/hygiene facilities. Use appropriate PPE.	5
Hand excavation	Deep features	Catastrophic	Field staff	4	5	20	Fence or suitably demarcate areas of deep excavation. Step or batter edges of	4



Archaeological Fieldwork: General Hazards								
Task	Hazard	Adverse Effect	People at Risk	Likelihood × Consequence = Risk Score			Actions to minimise risk	Residual Risk
							excavated area Assess stability of strata Shore all vertical faces deeper than 1.2m Use secured ladder for access/egress. Monitor regularly for signs of subsidence. Cease work if heavy rain causes strata to become unstable. Consider use of auger to record the depth and sample the base of feature. Machine excavate if permitted. Use appropriate PPE.	
Hand excavation	Hand tools	Minor	Field staff	3	2	6	Train field staff in correct use of tools. Instruct and closely supervise staff until competent. Monitor staff compliance. Use appropriate PPE.	5
Hand excavation	Power tools	Major	Field staff	3	4	12	Employ suitably qualified contractors if appropriate. Use correct tools for job. Train field staff in correct use of tools. Instruct and supervise staff until competent. Monitor staff compliance. Use appropriate PPE.	4
Hand Excavation	Tool/equipment failure	Major	Field staff	3	4	12	Maintain equipment. Replace worn or broken equipment.	4
Recording Excavation	Working at height (photography)	Catastrophic	Field staff	3	5	15	Subcontract a remotely operated elevated camera or cherry picker.	4