

LAND AT ASCOT ROAD, GRAVESEND, KENT
(NGR 564927, 172417)

**SCHEME OF INVESTIGATION
FOR AN ARCHAEOLOGICAL EVALUATION**

PLANNING APP. REF. 20220207
SOUTERRAIN PROJECT SOU22-826

October 2022

Produced for:

Holden + Lee

On behalf of:

Avery Healthcare

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CONTENTS

1. SCOPE OF THE DOCUMENT	4
2. PLANNING BACKGROUND	4
3. LOCATION & ASPECT OF THE APPLICATION SITE	6
Location	6
Topography	7
Geology	7
4. THE PROPOSED DEVELOPMENT	7
5. ARCHAEOLOGICAL POTENTIAL & SIGNIFICANCE	7
Palaeolithic Periods	7
Roman Period	8
6. EVALUATION AIMS	8
7. OVERALL MITIGATION STRATEGY	9
8. EVALUATION STRATEGY	9
Proposed Layout of Trial Trenches	9
Health & Safety	9
<i>Risk Assessment</i>	9
<i>Services and Utilities</i>	11
<i>Root Protection Areas</i>	11
<i>Standard Field Procedure</i>	12
<i>Unexpected or Exceptional Discoveries</i>	13
9. LIAISON WITH KENT COUNCIL'S SENIOR ARCHAEOLOGICAL OFFICER	13
10. ANALYSIS & REPORTING	14
11. ARCHIVE	14
12. HEALTH, SAFETY & WELFARE	15
Preliminary Measures	15
Welfare facilities	15
13. INSURANCE	15
14. SCHEDULE	16

15. COPYRIGHT &CONFIDENTIALITY	16
16. GENERAL	16
17. STANDARDS	17
18. PERSONNEL	17
19. REFERENCES	17
APPENDIX 1. KENT COUNTY COUNCIL MANUAL OF SPECIFICATIONS PART B: EVALUATION – TRIAL TRENCHING REQUIREMENTS	19
APPENDIX 2. KENT COUNTY COUNCIL MANUAL OF SPECIFICATIONS PART B: SPECIFICATION FOR PRELIMINARY EVALUATION OF QUATERNARY DEPOSITS AND PALAEOLITHIC POTENTIAL	30
APPENDIX 3. KENT COUNTY COUNCIL HER SUMMARY AND FIELDWORK NOTIFICATION FORM	39

Figures

Figure 1	Location of site
Figure 2	Proposed layout of trial trenches

1. SCOPE OF THE DOCUMENT

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by **Souterrain Archaeological Services Ltd** (the Archaeological Consultant) for **Holden and Lee** (Construction Consultants) on behalf of **Avery Healthcare** (the Planning Applicant).
- 1.2 It has been prepared for an archaeological evaluation, by trial trenching, in advance of redevelopment of an urban site at Ascot Road, Gravesend, DA12 5AW (the Application Site) in accordance with a Planning Condition imposed by **Gravesham Borough Council** (the Local Planning Authority).
- 1.3 The WSI sets out the proposed approach and scope of the evaluation work which is to be executed by **KDK Archaeology Ltd** (the Archaeological Contractor).
- 1.4 The Proposed Development Area (hereafter PDA) is currently occupied by a disused public house and restaurant. The building is to be demolished and replaced with a Care Home.
- 1.5 The aim of the archaeological evaluation is to ascertain the significance and extent of potential buried heritage assets at the Application Site, which will assist in the determination of the scope and level of any further archaeological mitigation work. The overall objective is to ensure that the archaeological interest of any buried heritage assets at the Application Site is properly safeguarded.
- 1.6 The WSI presents:
- an outline of the archaeological potential and historical background of the PDA;
 - the purpose of the investigation;
 - an indicative layout of proposed trial trenches based on the area of development impact; and
 - the field evaluation strategy and methodology.
- 1.7 The investigation is to follow a staged approach (*post.* 7), the Field Evaluation and an Assessment Report being the first and second stages.
- 1.8 The WSI is to meet with the approval of Mr Casper Johnson, **Senior Archaeological Officer** (SAO) of Environment, Planning and Enforcement, Kent County Council (statutory consultant for Gravesham Borough Council) prior to the commencement of groundwork at the PDA.

2. PLANNING BACKGROUND

- 2.1 Gravesham Borough Council Planning Permission 20220207 was granted subject to Conditions on the 13th July 2022, for *“Demolition of the existing former public house building and redevelopment to provide a new 62 bed care home (Use Class C2) in a three-storey building together with associated access, car and cycle parking, structural landscaping and amenity space provision”* at the PDA. The area of the proposed development is defined on the Proposed Site Plan (Drawing No. A202043, AL(9)901, E) by **TDC Arch Design**, submitted with the planning application.



Figure 1. Location of Site

(based on Ordnance Survey mapping 2022, © Crown Copyright. All rights reserved. Licence number AL 100015565)

- 2.2 A Heritage Impact Assessment (Souterrain 2021) formed an integral part of the documentation submitted with the planning application in line with National Planning Policy Framework advice Framework (DLUHC 2021, 194).
- 2.3 Prior to the grant of planning consent the SAO gave the following comments and recommendations¹:

“The Archaeological Heritage Asset Assessment by Souterrain Archaeological Services Ltd (ref SOU21- 723) February 2021 is thorough and supports the understanding that the site has archaeological potential.

As the past development of the site will have had some impact on any below-ground archaeological remains, I think that the most practical approach would be to attach the following condition to any forthcoming consent:

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of

- i. archaeological field evaluation works in accordance with a Written Scheme of Investigation and timetable which has been submitted to and approved in writing by the Local Planning Authority; and*
- ii. following on from the evaluation, any safeguarding measures to ensure preservation in situ of important archaeological remains and/or further archaeological investigation and recording in accordance with a Written Scheme of Investigation and timetable which has been submitted to and approved in writing by the Local Planning Authority.*

Reason: To ensure appropriate assessment of the archaeological implications of any development proposals and the subsequent mitigation of adverse impacts through preservation in situ or by record.

The field evaluation would take the form of trial trenching which could be undertaken before or after demolition and I would be happy to provide the applicant with a brief for the field evaluation on request.”

- 2.4 The above recommendations form Condition No. 7 of the grant of Planning Permission. The reason for the Condition is to ensure that features of archaeological interest are properly examined and recorded in accordance with the National Planning Policy Framework (DLUHC 2021).

3. LOCATION & ASPECT OF THE APPLICATION SITE

Location

- 3.1 The PDA lies in the Civil Parish of Gravesend, in the Borough of Gravesham, Kent (Fig. 1). It comprises of a plot of approximately 0.4 of a hectare, on the southwest side of the junction of Central Avenue and Ascot Road, centred at NGR 564927, 172417 (Fig. 2). The site is currently occupied by a disused 1930s public house.
- 3.2 The PDA is surrounded to the west, north and east by residential properties of mixed age. Those that face the PDA along the north side of Ascot Road and the east side of Central Avenue were built in the 1930s, while those to the west along Ascot Road and Aintree Close were built in the late 70s /early 80s. To the south, the PDA is bordered by Central Avenue Open Space, a public playing field (c. 0.8 ha) and former sports ground created pre-1932.

¹https://docs.gravesham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=C797D979BE4E4FB184CD4E3377BDE0C2

Beyond the Open Space is Ridgeway Avenue, built in the 1930s. The site is partly bounded to the east and north by intermittent mature trees and hedgerow shrubs, with wood-panelled fencing to the west and steel park-railing fence to the south.

Topography

- 3.3 Topographically, the PDA is situated on the east side of the Wrotham Road Dry Valley, on a northwest-facing slope², c. 10 m above the valley bottom. The site has a gradual downward slope, south to north; from c. 36.7 m (SW) - 37.2 m OD (SE), to c.35.35 m OD at Ascot Road³.

Geology

- 3.4 The underlying solid geology is mapped by the British Geological Survey as 'Seafood Chalk of the White Chalk Subgroup' (BGS 2021a). The formation is defined as '*Chalk with flints. With discrete marl seams, nodular chalk, sponge-rich and flint seams throughout. Typology of flints and incidence of marl seams is important for correlation... The lower boundary is conformable on the Grey Chalk Subgroup...*'. The closest available borehole data is c. 460m to the north east at NGR 565300,172700. This revealed soft clay-with-flints at 0.9m to 8m below ground level (c. 30 m OD), above soft weather chalk at 8m to 10.5m below ground level⁴.

4. THE PROPOSED DEVELOPMENT

- 4.1 The proposed development is to comprise a Care Home with parking places, access and hard and soft landscaping. The design principles are provided in the Design and Access Statement which accompanies the planning application. The design layout used for the purposes of the Field Evaluation is 'Proposed Site Plan' (Drawing No. A202043, AL(9)901, E, Dec. 2020) by TDC Arch Design⁵.

5. ARCHAEOLOGICAL POTENTIAL & SIGNIFICANCE

- 5.1 The Heritage Impact Assessment (HIA) identified two main aspects of buried archaeological potential and significance within a 1km radius Study Area: the Palaeolithic period and the Roman period.

Significance

- 5.2 The significance of any archaeology buried at the PDA is determined by how it may augment our understanding of the past and, in this respect, what it may contribute to current regional and national research agenda. The *South East Research Framework (SERF)* is the relevant regional research agenda for the Borough of Gravesham. It provides an overview of current understanding of the region's historic environment and a set of key research questions to guide future work.

Palaeolithic Periods

Production of a minor dataset

- 5.3 The HIA considered the PDA to have low potential for archaeology of the Palaeolithic periods. There are no recorded heritage assets of Palaeolithic date at the PDA, and throughout the 1km Study Area covered by the HIA, finds have been scarce. Notwithstanding this, in terms of Palaeolithic 'site' presence, it is presently acknowledged by the *SERF* that the importance of a specific locality can only rarely be determined with confidence in advance of fieldwork. The

² <https://en-gb.topographic-map.com/maps/fvsq/Gravesend/>

³ Based on: Topographical survey, CLB Surveys Ltd Drw. No. MA20-4274-1 CLB Surveys Ltd March 2020

⁴ www.bgs.ac.uk BGS British Geological Survey ID: 725692 : BGS Reference: TQ67SE148, British National Grid (27700) : 565300,172700 [accessed 20.02.21]

⁵ https://docs.gravesham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=8E1D24643F534F57B6776BA0D3E78E9A

ability to perform Predictive Modelling ahead of development and fieldwork is recognized as a key research priority. But this will require a much improved understanding of the distribution and prevalence of Pleistocene deposits. It is emphasised that the actual boundaries of geological deposits and outcrops are only broadly known, and thus only broadly defined on maps.

- 5.4 The approach to assessing the Early Palaeolithic resource in the South East is thus deposit-centred as opposed to find-centred. Of fundamental importance to research priorities are 'incremental minor snippets of data', with equal weight given to sites that lack actual artefactual evidence, but other vital information they may contain (e.g. palaeo-environment, palaeo-climate, chrono-stratigraphy).
- 5.5 With respect to the above, the PDA has the potential to produce a minor dataset via controlled palaeo-environmental investigation that will contribute to research into, and understanding of, the period.

Clay-with-flints deposits

- 5.6 It is possible that the PDA may contain Pleistocene Residual Surface Deposits of potential research interest, comprised of clay-with-flints or colluvial deposits. Concerning clay-with-flints deposits, current *SERF* research priorities include: the identification of in-filled dolines containing Lower to Middle Palaeolithic material; the assignment of artefacts to a particular stage of the Palaeolithic and; determination of the levels of Lower to Middle Palaeolithic activity. Priorities with regard to colluvial deposits include the identification of colluvial/solifluction that may contain minimally-disturbed concentrations of Palaeolithic artefacts (Wenban-Smith, 2019).

Roman Period

- 5.7 A portion of a Roman cremation cemetery was discovered about 250 m to the southeast the PDA. The HIA also noted that the PDA lies adjacent to the course of a historic trackway (now Central Avenue), of unknown origin. Other than this, there has been only two chance finds of artefacts of the Roman period within the 1 km Study Area covered by the HIA. In contrast, however, there is an emerging picture of an extensive Romano-British enclosed rural landscape to the immediate south of the Study Area, where landscape character, elevation and topography are comparable to that of the PDA.
- 5.8 In terms of significance, the *SERF* acknowledges that 'all instances of [Romano-British] rural settlement sites are valuable resources that require mapping, phasing, dating and comparison' in order to determine patterns of continuity and change. (Allen *et al.*, 2019)

6. EVALUATION AIMS

- 6.1 The purpose of the evaluation will be to record the location, extent, date, character, significance and quality of any surviving archaeological remains within the area of the proposed development. This will assist the SAO in the determination of the scope and level of any further archaeological mitigation work, should it be required.
- 6.2 The purpose of the Palaeolithic element of the investigation will be moreover a sample examination of potential Palaeolithic landscape survival and an adequate record of the nature of geological deposits. It will determine the presence / absence of Pleistocene Residual Surface Deposits and the presence/absence of artefacts and palaeo-environmental evidence.

7. OVERALL MITIGATION STRATEGY

7.1 The overall mitigation strategy is to follow a staged approach:

Stage 1 *An archaeological field evaluation of the site to locate, define and characterise any buried archaeological remains.*

Stage 2 *An appraisal of the results of the field evaluation and their significance with regard to the proposed development. This may lead to the definition of a programme of investigation and recording of archaeological remains, which will be unavoidably destroyed by the development.*

Stage 3 *i) A separate Project Design / Written Scheme of Investigation is to be prepared by the Archaeological Consultant for any subsequent phase of investigation, for the agreement of the Developer and the Local Planning Authority. This will cover a programme of post-excavation and analysis and publication.*

ii) The implementation of the agreed programme of archaeological investigation.

7.2 This Scheme of Investigation concerns the Field Evaluation (Stage 1) and the Appraisal Report (Stage 2).

8. EVALUATION STRATEGY

Proposed Layout of Trial Trenches

8.1 The indicative layout of trial trenches (Fig. 2), agreed with SAO, is designed to provide a representative sample of the area of disturbance. The trenches are to be dug post-demolition. The final locations of trenches may vary on the day of excavation dependent on site constraints (e.g. buried services) and considerations.

8.2 Trenches 1 and 2 are to be placed in a zone of presumably least-disturbed land at the rear of the former public house, on ground that is to be impacted by the development footprint. Trench 1 is to be 12 m x 2 m, Trench 2 is to be 10 m x 2 m.

8.4 Trench 3 is to be 8 m x 5 m. This is to be initially dug as a conventional evaluation trench. If nothing worth preservation *in situ* is present, once recorded, a trench one bucket-width would be excavated down its centre (to allow a safe step down to c. 1.5 - 2 m) in order to identify and record any Palaeolithic deposits.

Health & Safety

Risk Assessment

8.5 A Health and Safety Risk Assessment will be carried out by the Archaeological Contractor prior to commencement of the fieldwork. Archaeologists will adhere to all relevant health and safety legislation, regulations and codes of practice.



Figure 2: Proposed layout of trial trenches

Services and Utilities

- 8.6 Services and utilities plans, together with the *Utility Service Report* (Harniss Consulting 2021)⁶ are to be examined by the Archaeological Contractor prior to the commencement of trenching. The area of each trial trench is to be CAT-scanned by the excavation contractor prior to excavation.

Unexploded Ordnance

- 8.7 Given that Gravesend was heavily bombed in World War II, an Explosive Ordnance Desk Top Study⁷ was duly commissioned by the Developer. The study identified a low to medium risk in relation to the potential for unexploded ordnance (UXO) to be present at the site (ASL 2021, 8; EOD Contracts Ltd 2021): *“there is a low risk in relation to the potential for UXO to be present at the site within the public house portion of the site. In the south and west of the site in the playing field portion of the site, a medium risk in relation to the potential for UXO to be present was identified”*. The Risk Map (EOD Contracts Ltd 2021, 6.6) shows that the proposed archaeological trenches are to be placed within the Public House portion of the site, shown as the low risk area.
- 8.8 Specific precautions are therefore required during the investigation and development of the site. In line with the recommendations of the Desk Top Study, no archaeological excavation is to take place without UXO safety monitoring by the project’s Home Office Authorised EOD/UXO Contractor and UXO safety awareness training provided to all site personnel involved with intrusive earthworks at the site as part of future development work (EOD Contracts Ltd 2021, 5.12).

Contamination

- 8.9 If contaminated material is present in the surface or sub-surface deposits at the site, the Archaeological Contractor must immediately inform the Archaeological Consultant, so that appropriate measures can be taken by the Developer to ensure that site workers avoid contact with contaminants. If asbestos is found during the excavation of any the trenches, work on that trench will immediately cease.

Root Protection Areas

- 8.10 The trench locations and temporary soil storage areas must conform to the *Tree Protection Plan* ADAC Ltd (2021a)⁸ and are to be agreed in advance by the project’s Arboriculturalist. All archaeological work must conform to the site-specific *Arboricultural Site Considerations* set out in the Arboricultural Report (ADAC Ltd, 2021b).

PPE

- 8.11 Appropriate Personal Protective Equipment (PPE) will be worn at all times on site. As a minimum this will comprise: hard-hat, hi-visibility jacket or waistcoat and correct protective foot-ware.

Deep Excavations

- 8.12 Archaeological investigations and recording must not exceed 1.2 m without appropriate measures beforehand for securing trench sides (i.e. stepping down the sides). Deep trenches but must be back-filled immediately after recording and must not be left open overnight.

Standards

⁶https://docs.gravesham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=0B445CFE56814BFB965BB6E2B8AD1D8C

⁷https://docs.gravesham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=0B445CFE56814BFB965BB6E2B8AD1D72

⁸https://docs.gravesham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=0B445CFE56814BFB965BB6E2B8AD1D79

- 8.13 The archaeological work will be directed by an appropriately qualified and experienced archaeologist and is to be carried out in accordance with the Chartered Institute for Archaeologists' *Code of Conduct* and *Standard Guidance for Archaeological Field Evaluation* (2020).

County Requirements for Archaeological Fieldwork

- 8.14 In addition to site specific requirements above, the excavation of trenches will adhere to the Kent County Council *Manual of Specifications Part B*, the relevant sections of which are appended to this WSI: *Evaluation – Trial Trenching Requirements* (Appendix 1) and *Specification for Preliminary Evaluation of Quaternary Deposits and Palaeolithic Potential* (Appendix 2).

Standard Field Procedure

- 8.15 The trenches are to be dug under direct guidance of an experienced archaeologist, by a 360° tracked mechanical excavator, fitted with a toothless (i.e. ditching) bucket. Topsoil and overburden will be removed to the top of archaeological deposits or undisturbed geological deposits, whichever is encountered first. Since the objective is to define archaeological remains it will not necessarily be the case that Trenches 1 and 2 will be fully excavated to the geology.
- 8.16 Topsoil and subsoil are to be stored separately. On back-fill, soils are to be returned to the trenches in the reverse order to which it was excavated. Reinstatement of the ground surface will not be undertaken, other than surface compaction by machine.
- 8.17 The trenches will be hand cleaned as necessary using appropriate hand tools and a written, drawn and photographic record will be made of features and deposits in line with KCC expectations for archaeological recording (Appendices 1 & 2).
- 8.18 All archaeological deposits and features will be sampled by hand excavation to provide the information required to meet the objectives of the evaluation (i.e. sufficient to adequately characterise each feature encountered).
- 8.19 Soil samples are to be taken where they are considered to contain important archaeological information. This may be for the purposes of palaeo-environmental or palaeo-economic examination, or to determine site formation processes from soil micromorphologies and pedological structures. *Guidance found in Environmental Archaeology: A Guide to the Theory and Practice of Methods, from sampling and recovery to post excavation (2011)* is to be followed. Specific advice, where appropriate, may be sought from the Historic England Regional Adviser in Archaeological Science.
- 8.20 All excavation will be undertaken with a view to avoiding damage to any archaeological features or deposits that appear to be worthy of *in situ* preservation.
- 8.21 All finds and other relevant material will be retained and removed from the site for post-fieldwork analysis.
- 8.22 The recording system will be compatible with those widely accepted in Kent. Drawings are to be made on drafting film at appropriate scales for archaeological work. The photographic record will comprise black and white accompanied by high-quality digital images taken using a DSLR camera of digital format. The photographic record will also include working shots to represent more generally the nature of the fieldwork.
- 8.23 The stratigraphy of the evaluation trenches will be recorded, even where there are no archaeological remains.

- 8.24 Trenches and archaeological features and deposits are to be surveyed to Ordnance Survey National Grid co-ordinates and Ordnance Datum height by differential RTK GPS or Total Station.
- 8.25 Artefacts of archaeological significance collected during the evaluation will be allocated a unique numeric reference and cross-referenced to the context number. Artefacts will be labelled, packed and stored in appropriate materials and conditions to ensure that no deterioration occurs. Finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in United Kingdom Institute for Conservation's *Conservation Guidelines No. 2* and the Chartered Institute for Archaeologists' *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (2020). Certain classes of material (e.g. late post-medieval to modern pottery and building material) may on occasion be discarded after recording if a representative sample is kept.
- 8.26 All finds of gold and silver will be removed to a safe place and reported to the local Coroner according to the procedures relating to Treasure Act, 1996. Where removal cannot be done on the same working day as the discovery, suitable security measures are to be taken by the Archaeological Contractor to protect the finds from theft.
- 8.27 In the event that human remains are accidentally exposed they will be left *in-situ*, covered and protected and the local authority environmental officer will be informed. If removal is essential it is to only take place under the appropriate Ministry of Justice licence, section 25 of the Burial Act 1857 and, if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981, and after agreeing an appropriate mitigation strategy with the SAO.

Unexpected or Exceptional Discoveries

- 8.28 In the event of discoveries of unexpected or exceptional importance being made during the evaluation, the Archaeological Contractor will signal the discovery immediately to the Archaeological Consultant, and the SAO will be informed as soon as practically possible in order to enable an appropriate mitigation strategy.

9. LIAISON WITH KENT COUNCIL'S SENIOR ARCHAEOLOGICAL OFFICER

- 9.1 Monitoring will be carried out on behalf of the Gravesham Borough Council by the SAO. The Archaeological Consultant (Souterrain) will notify the SAO of the proposed start date of the fieldwork, giving at least 5 working day's notice in writing. The Archaeological Contractor (KDK Archaeology Ltd) will at that time complete Kent County Council's Fieldwork Notification Form & HER Summary Form (Appendix 3 of this WSI).
- 9.2 Pre-arranged site visits by the SAO will be required. A monitoring visit will be arranged with the SAO as soon as the programme of works is established.
- 9.3 The SAO will be at liberty to visit the site at any time during the site works after giving notice to Souterrain in advance of each visit.
- 9.4 The Archaeological Consultant will liaise with the SAO as appropriate during the Archaeological Investigation to inform and update him of the nature of any discoveries.

10. ANALYSIS & REPORTING

- 10.1 Upon completion of the site investigation, the Archaeological Contractor will produce an Appraisal Report appropriate to the results of the fieldwork (*ante*, 7.1, Stage 2) and in line with Kent County Council's expectations for Archaeological Evaluations and Palaeolithic Investigations by trial trenching/test pitting (Appendices 1 & 2). Recovered data will be analysed to a level to provide sufficient archaeological information in which to assess the effect of the proposed development on buried heritage assets. The report will summarise and detail the findings, provide interpretation, and attempt to place the findings into an historical context.
- 10.2 A report will normally contain as a minimum the following elements:
- non-technical summary
 - introductory statements
 - aims and purpose of the investigation
 - methodology
 - site location plans at appropriate
 - an objective summary statement of results
 - conclusion, including a confidence rating
 - supporting illustrations at appropriate scales
 - supporting data, tabulated or in appendices, including a basic quantification of all artefacts and ecofacts (number and weight), and structural data
 - results of the work in the context of relevant HER data in the Study Area
 - references
 - index to and location of archive
 - Museum accessions number
 - OASIS Data Collection Form
- 10.3 Subject to contractual requirements on confidentiality, a copy of the report will be submitted to Kent County Council's Historic Environment Record (HER) within six months of completion of the report.
- 10.4 An OASIS (Online Access to the Index of Archaeological Investigations – see www.oasis.ac.uk) record is to be completed by the Archaeological Contractor. This allows electronic copies of the report to be made available to researchers.

11. ARCHIVE

- 11.1 All identified finds and artefacts from archaeologically significant features will be collected and retained by the Archaeological Contractor.
- 11.2 An integrated project archive (including both artefacts/ecofacts and project documentation) is to be prepared upon completion of the project, in accordance with the requirements of the Kent County Council's Requirements (Appendices 1 & 2) and the receiving museum.
- 11.3 A Museum Accessions Number is to be obtained prior to fieldwork (see Appendix 1, 3.4).

12. HEALTH, SAFETY & WELFARE

See also Section 8.5 to 8.12.

- 12.1 The Archaeological Contractor will adhere to the KDK Archaeology's company Health and Safety Policy and Statement of Responsibilities, the Developer's (or their agent's) Health and Safety Plan (where applicable), the Developer's/ Construction Contractor's Site Rules and all relevant Health and Safety legislation, regulations and codes of practice.

Preliminary Measures

- 12.2 Prior to the commencement of archaeological work, the Planning Applicant/Developer or their Agent is to ensure that all measures to avoid damaging or illegal impacts must be put in place; these may include, but are not limited to, Tree Preservation Orders, the siting of live services, Public Rights of Way, areas of ecological interest and habitats of protected species.
- 12.3 The Planning Applicant/Developer and /or Construction Contractor is to be responsible for any health and safety devices (e.g. fencing, trench shoring, bunting and signage) as necessary to prevent public access and accident.
- 12.4 A Risk Assessment is to be prepared by The Archaeological Contractor prior to the Archaeological Investigation.

Welfare facilities

- 12.5 The Developer/ Construction Contractor is to provide appropriate washing and toilets facilities for the use of archaeological site staff.

13. INSURANCE

- 13.1 KDK Archaeology Ltd (the Archaeological Contractor) holds the following insurances:

Public Liability	£5,000,000
Employer's Liability	£10,000,000
Professional Indemnity (for any single claim)	£1,000,000
Personal Accident	
Details can be supplied on request.	

- 13.2 The archaeological fieldwork will be carried out in accordance with the Archaeological Contractor's Standard Conditions of Contract for work of this nature.
- 13.3 The Archaeological Contractor will not be liable to indemnify the Planning Applicant/Owner against any compensation or damages for or with respect to:
- the use or occupation of land (which has been provided by the owner/applicant) by the Project or for the purposes of completing the Project or interference whether temporary or permanent with any right of way light air or other easement or quasi easement which are the unavoidable result of the Project in accordance with the Agreement
 - any other damage which is the unavoidable result of the Project in accordance with the Agreement
 - damage to buried services or utilities being on the Area or Areas of Work
 - injuries or damage to persons or property resulting from any act or neglect or breach of statutory duty done or committed by the applicant or his agents servants or their contractors (not being employed by KDK Archaeology Ltd) or in respect of any claims

demands proceedings damages costs charges and expenses in respect thereof or in relation thereto.

14. SCHEDULE

- 14.1 The excavation of the evaluation trenches is proposed to commence in the latter quarter of 2022. The evaluation fieldwork is expected to be completed within 1 week.

15. COPYRIGHT & CONFIDENTIALITY

- 15.1 The Archaeological Contractor will retain full copyright of any commissioned reports, tender documents or other project documents under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide an exclusive licence to the Planning Applicant in matters directly relating to the project as described in this Written Scheme of Investigation.
- 15.2 The Archaeological Contractor retains the right to be identified as the author of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988.
- 15.3 A licence is to be granted to Kent County Council's Historic Environment Record for the use of all reports arising from projects for planning purposes and *bona fide* research requests.
- 15.4 The Archaeological Contractor must advise the Planning Applicant of any such materials supplied in the course of projects which are not the Archaeological Contractor's copyright.
- 15.5 The Archaeological Contractor must undertake to respect all requirements for confidentiality about the Planning Applicant's proposals provided that these are clearly stated. It is expected that owners respect the Archaeological Contractor and the Chartered Institute for Archaeologists' general ethical obligations not to suppress significant archaeological data for an unreasonable period.

16. GENERAL

- 16.1 The requirements of the Scheme will be met in full where reasonably practicable. The scope of fieldwork detailed in the main part of the Scheme is aimed at meeting the objectives of the project in a cost effective manner.
- 16.2 Any significant variations to the proposed methodology will be discussed and agreed with the SAO in advance of implementation.
- 16.3 The Archaeological Contractor will attempt to foresee all possible site specific problems and make allowances for these. However there may on occasions be unusual circumstances which have not been included in the programme and costing, the cost of which would need to be met by the Planning Applicant/Owner. These can include: unavoidable delays due to extreme bad weather, vandalism etc; trenches requiring shoring or stepping, ground contamination, unknown services, poor ground conditions; mechanical breakdown; extensions to specified trenches or feature excavation sample sizes requested by the SAO, complex structures or objects, including those in waterlogged conditions, requiring specialist removal.

17. STANDARDS

- 17.1 The Archaeological Contractor is to conform to the standards of professional conduct outlined in the Chartered Institute for Archaeologists' Code of Conduct and the ClfA Standards and guidance for archaeological work. Archaeologists normally will be recognised in an appropriate area of competence by the Chartered Institute for Archaeologists or have an appropriate level of experience.
- 17.2 Where practicable, the Archaeological Contractor will liaise with local archaeological and historical bodies (both professional and amateur) in order that information about particular sites is disseminated both ways (subject to client confidentiality).

18. PERSONNEL

- 18.1 The archaeological investigation is to be carried out by suitably qualified and experienced archaeological personnel.
- 18.2 The project is to be managed by Martin Wilson BA Hons MAAIS MCIfA MEnvSc MInstLM FSAsc of Souterrain.
- 18.3 Archaeological Fieldwork Team is to be managed by David Kaye of KDK BA AfCIA Archaeology Ltd. The fieldwork will be supervised by either Laura Dodd BA MSc or Chris Martin-Taylor BSc.
- 18.4 The nominated Palaeo-environmental specialist is Dr Mike Allen. Other specialists are to be introduced as appropriate.

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APPENDIX 1. KENT COUNTY COUNCIL MANUAL OF SPECIFICATIONS PART B: EVALUATION – TRIAL TRENCHING REQUIREMENTS

1. Introduction

- 1.1 Archaeological trial trenching involves the sampling of a site to determine whether archaeological remains are present and if so, to assess their character, extent, date, condition and potential importance. Trial trenching will aim to determine, as far as is practicable and without comprising the integrity of important archaeological deposits, the full stratigraphic sequence at the site, including information on the 'natural' substrate and soil conditions.

2. General Requirements

- 2.1 Trial trenching will be carried out by archaeological organisations (from here on referred to as 'the Archaeological Contractor') acceptable to the relevant Local Planning Authority, with recognised experience and expertise in the specified type of work to be undertaken. Registration with the Institute of Field Archaeologists (IFA) as a Registered Archaeological Organisation (RAO) will normally be considered as an indicator, but not a prerequisite, of such expertise and experience. A good working knowledge of the archaeology of Kent will also be considered highly desirable.
- 2.2 Prior to any work being undertaken the Archaeological Contractor will inform the County Archaeologist and communicate details of the proposed team, including (if required) CVs for senior staff and specialists. Senior staff and specialists will need to demonstrate an appropriate level of experience and expertise and should preferably be, where appropriate, Members of the Institute of Field Archaeologists (IFA).
- 2.3 Prior to undertaking the trial trenching the Archaeological Contractor will need to demonstrate that the necessary resources are in place to undertake the work, through to reporting. The Archaeological Contractor will have available appropriate specialists necessary to support the successful completion of the archaeological fieldwork and post-excavation work.
- 2.4 The work will be supervised on site at all times by a member of staff with the required level of experience and who will be responsible for the conduct of on-site work.

3. Pre-site Requirements

- 3.1 Prior to undertaking trial trenching the Archaeological Contractor will have gathered and considered the following information:
- Relevant information on the County Historic Environment Record (HER) held by Kent County Council and maintained by the Heritage Conservation Team;
 - Any earlier reports of fieldwork relevant to the site;
 - Solid and drift geology;
 - Geotechnical site investigation data (if available);
 - Any desk-based studies of the site.
- 3.2 In certain circumstances the following will also be considered:
- Relevant published secondary sources
 - Relevant historic maps held at the Centre for Kentish Studies
 - Aerial photographs where cropmarks are considered to indicate archaeology on or close to the site.
- 3.3 The Archaeological Contractor will ensure that all reasonable measures have been taken to identify any constraints to undertaking the evaluation trenching. The Archaeological Contractor will seek information on the presence of services, any ecological constraints, the presence of Public Rights of Way, the presence of contaminated land or any other risks to health and safety.
- 3.4 The Archaeological Contractor will make provisional arrangements for the deposition of the site archive with an appropriate museum or suitable repository agreed with the County

Archaeologist. The Archaeological Contractor will obtain a provisional accession number for the site archive from the recipient museum (except where the museum prefers to issue an accession number following completion of fieldwork) and any guidelines from the recipient museum regarding deposition of the site archive.

- 3.5 Full copies of the Specification must be issued to the field officer responsible for on-site work and a copy of the agreed Specification and any additional method statements must be available on site at all times. The team carrying out the trial trenching must be familiar with the Specification and have access on site to any previous evaluation or survey reports.

- 3.6 The Archaeological Contractor will inform the County Archaeologist of the start date of the work (at least five working days before) and arrange for monitoring visits to be undertaken, using the Site Fieldwork Notification Form (see Appendix 3). The Archaeological Contractor will continue to keep the County Archaeologist informed of the progress of work and will notify the County Archaeologist immediately if particularly important archaeological remains are encountered.

4. Objectives

- 4.1 The purpose of the evaluation is to establish whether there are any significant archaeological deposits at the site that may be affected by the proposed development.

- 4.2 The evaluation is thus to

- a) ascertain the extent, depth below ground surface, depth of deposit, character, date, significance and condition of any archaeological remains on site;
- b) establish the extent to which previous development and/or other processes have affected archaeological deposits at the site; and
- c) establish the likely impact on archaeological deposits of the proposed development.

5. Scope of trial trenching

- 5.1 The layout and number of trenches excavated will be in accordance with the Specification, details of which are given in Part A. Any amendment to trench design due to on-site constraints will be agreed with the County Archaeologist in advance of the work being undertaken.

- 5.2 Particular issues that will be addressed by the evaluation are set out in part A of this specification.

6. Machine and Hand Excavations

- 6.1 All machine excavation of trial trenches will be carried out under constant archaeological direction by a suitably experienced archaeologist familiar with the ground conditions anticipated on the investigation site.

- 6.2 Machine excavation of trial trenches will be undertaken by a mechanical excavator using a flat-bladed bucket. No mechanical excavators, earthmoving or other vehicles will travel within any excavated trench until it has been signed off by the County Archaeologist or specific agreement has been reached to enable re-stripping.

- 6.3 The Archaeological Contractor will maintain a constant watch and closely inspect on an ongoing basis surfaces exposed during the course of machining. Surfaces will be maintained clear of loose spoil.

- 6.4 Subject to additional requirements of the landowner or client, turf, topsoil and other distinct deposits will be stored separately and at least 1 metre from the edge of the evaluation trench.

- 6.5 Machine-excavated deposits and the exposed surface will be regularly scanned for the presence and collection of artefacts. Exposed surfaces and excavated spoil will be scanned by metal detector.

- 6.6 The excavation by machine is to be taken down to the top of any significant archaeological level or to the top of 'natural' subsoil where no archaeological deposits have been found at a higher level. In the event of significant archaeological deposits being encountered the County Archaeologist is to be informed immediately. Some further limited excavation may be required to

clarify the nature, character and date of the archaeological deposits but the primary objective is to establish the presence/absence of archaeological deposits, their depth and extent.

- 6.7 Where complex archaeological stratification is encountered, deposits will be left in situ and measures to assess the depth of this stratification agreed with the County Archaeologist. Where modern features are seen to truncate the archaeological stratification, then these will be carefully removed without damage to surrounding deposits to enable the depth of stratification to be assessed.
- 6.8 If archaeological remains of limited significance are found to be present cutting through or overlying soils (e.g. colluvium) which conceal lower archaeological horizons then these will need to be recorded and investigated prior to removal of the underlying soil with the agreement of the County Archaeologist.
- 6.9 Machine excavation from the surface must be taken down in spits of no more than 100mm thickness to ensure that deposits and features are not over-excavated and that any artefacts/biological evidence in the soil are recorded.
- 6.10 Test sondages may need to be excavated through 'natural' subsoil in trial trenches to confirm that the solid geology has been reached. Such sondages will be positioned to avoid damage to archaeological remains.

7. Investigation and Sampling Strategy

- 7.1 Archaeological features will generally only be sampled sufficiently to characterise and date them. Full excavation of features will not be undertaken at this stage unless otherwise agreed with the County Archaeologist. Care will be taken not to damage archaeological deposits through excessive use of mechanical excavation.
- 7.2 Where necessary the surface and sections of trenches will be hand cleaned to define archaeological deposits and features clearly.
- 7.3 Measures will be taken to protect particularly significant, valuable or sensitive archaeological remains from exposure, accidental damage and / or theft.
- 7.4 Exposed surfaces will be left for a minimum of 48 hours to allow weathering-out of features to occur. No trenches will be backfilled until agreed with the County Archaeologist.

Burial Remains

- 7.5 Inhumation and cremation burials will normally be left in-situ for the purposes of evaluation. Subject to agreement with the County Archaeologist, graves may be partially excavated to confirm the presence of human remains and their state of preservation but skeletal remains will be left in situ. Graves will be scanned by metal detector to assess whether any grave objects are likely to be present.
- 7.6 Inhumation and cremation burials which are in a fragile state and are likely to be damaged by the reinstatement of evaluation trenches will be excavated and lifted subject to agreement with the County Archaeologist.
- 7.7 The Archaeological Contractor will put in place arrangements to ensure the security, protection from deterioration and damage, and the respectful treatment of human remains and burial goods.
- 7.8 On sites where burial remains are expected the Archaeological Contractor will submit to and agree with the County Archaeologist detailed procedures for the assessment, recording and, where necessary, the excavation of inhumation and cremation burials.
- 7.9 The Archaeological Contractor will have available within the team or on call an appropriately qualified and experienced osteoarchaeologist to supervise the excavation and removal of any human remains (where this is necessary) from the site. The Archaeological Contractor will use an appropriately qualified and experienced archaeological conservator to assist, where appropriate, the lifting of human remains and grave goods / cremation vessels.

- 7.10 In the event that human burials are discovered, a Ministry of Justice Licence will be required (in accordance with Section 25 of the Burial Act 1857) before the remains can be lifted. The need for a Ministry of Justice Licence applies to both inhumation and cremated remains. Application for a Licence will be made by the Archaeological Contractor. The Archaeological Contractor is to comply with the conditions of the Licence and discuss any requirements of that Licence which conflict with the agreed method of investigation with the County Archaeologist.

8. Finds recovery processing and treatment

- 8.1 All artefacts recovered during the excavations on the site are the property of the Landowner. They are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, *Conservation Guidelines no.2* and on completion of the archaeological post-excavation programme the landowner will arrange for them to be deposited in a museum or similar repository agreed with the County Archaeologist and the Local Planning Authority.
- 8.2 Artefacts will be excavated carefully by hand. The Archaeological Contractor will use an appropriately qualified and experienced archaeological conservator to assist in the lifting of fragile finds of significance and / or value.
- 8.3 Artefacts will be collected and bagged by archaeological context. The location of special finds will be recorded in three dimensions. Three-dimensional recording of in-situ flint working deposits will be carried out.
- 8.4 Where appropriate to address the research objectives of the archaeological evaluation, sieving of deposits will be undertaken to maximise recovery of small artefacts. A strategy for such sieving will be agreed in advance with the County Archaeologist.
- 8.5 Records of artefact assemblages will clearly state how they have been recovered, sub-sampled and processed.
- 8.6 Excavated artefacts will be bagged upon recovery or placed in finds trays. They must not be left loose on site.
- 8.7 **Treatment of treasure** - Finds, discovered by the Archaeological Contractor, falling under the statutory definition of Treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to the relevant Coroner's Office, the Kent Finds Liaison Officer (FLO) who is the designated treasure co-ordinator for Kent, the landowner and the County Archaeologist. A Treasure Receipt (obtainable from either the FLO or the DCMS website) must be completed and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is Treasure. Failure to report within 14 days is a criminal offence. The Treasure Receipt and Report must include the date and circumstances of the discovery, the identity of the finder (put as unit/contractor) and (as exactly as possible) the location of the find.
- 8.8 All metal objects, other than late post medieval objects, will be X-rayed unless otherwise agreed with the County Archaeologist.

9. Archaeological Science and Environmental Sampling

- 9.1 A structured programme of environmental sampling appropriate to the aims of the evaluation will be implemented. The strategy and methodology for the sampling, recording, processing, assessment, analysis and reporting of deposits with environmental archaeology potential will be in accordance with English Heritage Centre for Archaeology Guidelines "Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation" (March 2002). Any variation to this guidance will be agreed in advance with both the County Archaeologist and the English Heritage Regional Scientific Advisor. Particular note will be taken of the following requirements.
- 9.2 The Archaeological Contractor will use an appropriately qualified and experienced geo-archaeologist to record any deposits of particular significance such as buried soils or advise on depositional processes.

- 9.3 An appropriately qualified and experienced environmental archaeologist will devise and supervise the implementation of the environmental sampling strategy.
- 9.4 The advice of the English Heritage Regional Scientific Advisor is to be sought regarding specialist sampling requirements and any scientific applications relevant to the archaeological evaluation of this site.
- 9.5 Where deposits are dry, bulk samples for the recovery of charred plant remains, small bones and finds, will be taken from sealed and datable features such as pits, ditches, hearths and floors. Each context will normally be sampled. The size of the sample is expected to be in the range of 40-60 litres per context or 100% of smaller contexts. Samples will not be taken from the intersection of features.
- 9.6 For large features / spreads appropriate consideration will be given to sampling on a grid system if this fits in with the aims of the evaluation.
- 9.7 Where good conditions for the preservation of bone have been identified, all large bones will be collected by hand and sieving of bulk samples up to 100 litres will be undertaken as appropriate.
- 9.8 Mollusc samples of 2 litres each will be taken vertically from appropriate sections to investigate the changes of vegetation through time.
- 9.9 Where deposits are wet, waterlogged or peaty, monoliths will be taken along cleaned vertical surfaces for the retrieval of pollen, diatoms, ostracods and foraminifera. The numbers to be taken will be agreed with the County Archaeologist.
- 9.10 For wet, waterlogged or peaty deposits, bulk samples of 20 litres will be taken from visible layers or spits for the retrieval of plant macro-remains and insects.
- 9.11 Environmental samples from dry deposits will normally be processed by flotation following the evaluation fieldwork and the residues will be sorted to retrieve small bones, small finds and charcoal that has not floated. Environmental samples from wet deposits will normally be sent to specialists for processing in laboratory conditions. The Archaeological Contractor will agree with the County Archaeologist any necessary delay in completion of the reporting of the evaluation to enable provisional results to be included.
- 9.12 The Archaeological Contractor will make appropriate provision for the application of scientific dating techniques such as radiocarbon, dendrochronology, archaeomagnetic dating, OSL and thermoluminescence dating. The advice of the English heritage regional Scientific Advisor will be sought in advance of the application of these techniques. The Archaeological Contractor will agree with the County Archaeologist any necessary delay in completion of the reporting of the evaluation to enable provisional results to be included.
- 9.13 Where appropriate the guidance in the following English Heritage papers will be followed:
- "Guidelines on the recording, sampling, conservation, and curation of waterlogged wood" 1996
 - "Dendrochronology – guidelines on producing and interpreting dendrochronological dates" 1997
 - "Archaeometallurgy" 2001
 - "Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation" 2002
 - "Human bones from Archaeological Sites: Guidelines for Producing Assessment Documents and Analytical Reports" 2004
 - "Geoarchaeology" 2004
 - "Wet Wood and Leather"
 - "Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates" 2006
 - "Guidelines on the X-radiography of archaeological metalwork" 2006

10. Recording

- 10.1 All trenches, structures, deposits and finds will be recorded according to accepted professional standards. Sufficient data must be recorded to allow the required level of assessment and reporting (see section 11).
- 10.2 Recording must be carried out to a sufficiently high standard to provide a full record of the deposits evaluated, including in trenches where no archaeology is identified.
- 10.3 All features, deposits and finds are to be recorded according to accepted professional standards.
- 10.4 All archaeological contexts are to be recorded individually on context record sheets. A further more general record of the work, comprising a description and discussion of the archaeology, is to be maintained as appropriate. Context sheets are to be primarily filled in by the archaeologist excavating the feature or deposit.
- 10.5 A plan to indicate the location of the boundaries of the evaluated area and the site grid is to be drawn at a scale of 1:1250 (or a similar appropriate scale). Plans indicating the location of the excavated trenches and the location of all archaeological features encountered are to be drawn at an appropriate scale. An overall site plan is to be maintained at a scale of 1:100 or larger scale where appropriate. Sections will be drawn at a scale of 1:10. Significant archaeological features will normally be drawn in plan at a scale of 1:20 or 1:10 if appropriate. All detailed plans and sections are to be related to the 1:100 or 1:1250 plans. The 1:1250 and 1:100 plans are to be accurately related to the National Grid.
- 10.6 Long Sections indicating the full stratigraphic sequence will be drawn for all trenches. Where a very simple sequence is revealed representative sections (minimum 1m wide) at each end of the trench will be sufficient, but where more complex stratigraphy is encountered, complete trench sections will be drawn. In the case of complex stratigraphy, all four sections will be drawn.
- 10.7 All plans and sections are to be levelled with respect to OD.
- 10.8 All plans and sections are to be drawn on polyester based drafting film and clearly labelled.
- 10.9 A full black and white and colour (35mm transparency) photographic record of the work is to be kept. The photographic record is to be regarded as part of the site archive.
- 10.10 The Archaeological Contractor will keep a day to day digital photographic record of the investigation.
- 10.11 The Archaeological Contractor will ensure that the complete site archive including finds and environmental samples are kept in a secure place throughout the period of evaluation and post excavation works.
- 10.12 The site archive is to be consolidated after completion of the evaluation, with all site drawings inked-in, and records and finds collated and ordered as a permanent record.

11. Reinstatement and completion of fieldwork

- 11.1 On completion, trenches will be backfilled, reinstated and left in a safe state to the requirements of the landowner / client.
- 11.2 Where vulnerable archaeological deposits remain within trial trenches these will be appropriately protected from damage as part of the reinstatement. Consideration will be given to providing a marker in backfilled trenches to highlight vulnerable archaeological deposits should re-excavation be necessary.
- 11.3 On completion of fieldwork the Archaeological Contractor will complete the relevant section of the Fieldwork Notification Form and submit it to the County Archaeologist.

12. Reporting

- 12.1 Within three weeks of completion of the evaluation fieldwork (or longer in case of complex sites as agreed with the County Archaeologist) the Archaeological Contractor will produce a report, copies of which (as a minimum) are to be provided to:
- the Developer
 - the County Archaeologist
 - the Local Planning Authority
 - the Local Archaeological Society
- 12.2 When submitting the report to the County Archaeologist the Archaeological Contractor will provide written confirmation that the report has been submitted to the above parties.
- 12.3 If the Archaeological Contractor is required, contractually, only to submit reports directly to the developer or their agent, the Archaeological Contractor must inform the County Archaeologist in writing that they have completed the report and whom it has been forwarded to. The Archaeological Contractor must ensure that the developer is made aware of the need to circulate the report as in 12.1 above.
- 12.4 The Archaeological Contractor may determine the general style and format of the evaluation report but it must be completed in accordance with this specification. The report must provide sufficient information and assessment to enable the County Archaeologist and the Local Planning Authority to reach an informed decision regarding any further mitigation measures that may be required and to stand as an appropriately detailed report on the archaeological fieldwork for future research.
- 12.5 Reports that do not provide sufficient information or that have not been compiled in accordance with the relevant sections of this specification will be returned to the Archaeological Contractor for revision and resubmission.
- 12.6 The report will be submitted to the County Archaeologist in a heat-bound hard-copy and in digital format. The digital copy will be supplied in .pdf format and will contain all text, images and plans present in the hard-copy report in a single .pdf file. The medium will be a CD-ROM formatted according to ISO 9660:1999.
- 12.7 **Report Format** - The final evaluation report will include as a minimum:
- 12.7.1 An **Abstract** summarising the scope and results of the archaeological evaluation.
- 12.7.2 An **Introduction** including:
- the location of the site with a National Grid Reference for the centre sufficient to locate the site to 1m accuracy (e.g. TQ 55555 77777 or easting: 555555, northing: 177777);
 - an account of the background and circumstances of the work;
 - a description of the development proposals, planning history and planning reference together with the archaeological condition (where appropriate);
 - the nature of potential impacts arising from the proposals;
 - the scope and date of the fieldwork, the personnel involved and who commissioned it;
- 12.7.3 An account of the **Archaeological Background** of the development site including:
- geology, soils and topography;
 - any known existing disturbances on the site;
 - background archaeological potential of the site. This will include a summary of the known Historic Environment Record entries within 500m of the boundaries of the site (or wider where appropriate). The HER entries will be quoted with their full KHER identifier (e.g. TR 36 NW 12);
 - summary of any previous phases of archaeological investigation at the development site;
- 12.7.4 The **Methodology** employed during the evaluation must be detailed in the report. Any aims and objectives specified in the specification will be included as will any further objectives identified during the course of the evaluation. Constraints on the evaluation will also be described.

- 12.7.5 The report will include a quantification of the project archive contents, their state and future location.
- 12.7.6 The **Results** of the evaluation field work will be described trench by trench. This description must include for each trench:
- the dimensions of the trench;
 - the nature and depth of overburden soils encountered;
 - description of all archaeological features and finds encountered in each trench, their dimensions, states of preservation and interpretation;
 - a description of the geological subsoil encountered in each trench;
 - heights related to Ordnance Datum for a sufficient number of features and deposits. Where the trench results are complex a table showing the dimensions and heights of features and deposits will be included for each trench.
 - for complex stratigraphy a Harris Matrix diagram.
- 12.7.7 The **Finds** recovered during the course of the evaluation will be described, quantified and assessed by artefact type within the evaluation report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate local reference collections will be referred to for descriptive and analytical consistency. Any implications for future archive, conservation or discard of the artefacts will also be set out.
- 12.7.8 The report will include a table showing, per trench, the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.
- 12.7.9 The evaluation report will include an assessment of the **Environmental** potential of the site. Details will be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the evaluation will be described. Implications for future archive, conservation or discard of environmental samples or remains will be detailed.
- 12.7.10 The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.
- 12.7.11 Any results from the application of archaeological scientific techniques e.g. specialist dating will be included in the evaluation report.
- 12.7.12 An **Interpretation** of the archaeology of the site will be provided, including its location, extent, date, condition, significance and importance. This will be a synthesis of the stratigraphic, finds and environmental results of the investigation and will include, even if no archaeology is identified as present on the site, description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate. This section of the report will be supported by a phased interpretative plan of the site, clearly showing the major areas and periods of archaeological activity.
- 12.7.13 An **Impact Assessment** will consider the potential effects of the development on the archaeological remains. This will summarise the archaeological results, describe how any identified archaeological potential identified relates to the site and how the development proposals will affect that archaeology. The report will highlight any areas of sensitivity within the site. Particular note will be made of any variations in the depth of overburden covering any archaeological deposits revealed.
- 12.7.14 The **Conclusion** will summarises the method, results, interpretation and impact assessment.
- 12.7.15 The evaluation report will assess the potential for preservation at the site to inform decisions about mitigation strategies. It will not include any recommendations on preservation measures or further work unless otherwise agreed with the County Archaeologist.

- 12.7.16 The evaluation report will include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.
- 12.7.17 **Figures / illustrations** – The report will include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to be fully cross-referenced within the document text. As a minimum the evaluation report will include the following figures:
- a site location plan tied into the Ordnance Survey at 1:1250. The plan will also include at least two National Grid points to 1m accuracy and show the site boundary;
 - trench location plans at an appropriate scale showing the layout of archaeological features, coloured by phases or period. The plan will show the location of all trenches and features. A copy of the plan will be overlain on the proposed development plan where this is known. Where possible, projection of archaeological features outside of the trench areas will be included on the plan. This plan will also include two National Grid points;
 - plans of the features revealed in each of the trenches at a larger scale e.g. 1:20 or 1:50; such plans are to also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken will also be indicated;
 - relevant section drawings and trench soil profiles as appropriate;
 - illustrations and/or photographs of significant finds.
- 12.7.18 All report illustrations must be fully captioned and scale drawings must include a bar scale. Standard archaeological drawing conventions must be used. Plan and section illustrations must include the numbers of all contexts illustrated. North must be included on all plans and will be consistent. Sections must indicate the orientation of the section and the Ordnance Datum height of the section datum.
- 12.7.19 Black & White or Colour photographs will be included to illustrate key archaeological features, trenches and site operations. All photographs will be appropriately captioned.
- 13. Archive Preparation & Deposition**
- 13.1 The site archive, to include all project records and cultural material produced by the project, is to be prepared in accordance with *Guidelines for the preparation of excavation archives for long-term storage (UKIC 1990)*. On completion of the project the Archaeological Contractor will arrange for the archive to be deposited in accordance with the provisional arrangements made with a suitable museum or repository at the onset of fieldwork. Any alternative arrangements will be agreed with the County Archaeologist and the Local Planning Authority.
- 14. Monitoring and Liaison**
- 14.1 The Archaeological Contractor is to allow the site records to be inspected and examined at any reasonable time, during or after the evaluation fieldwork, by the client/developer, the County Archaeologist or any designated representative of the Local Planning Authority
- 14.2 Once the trenches have been evaluated and an initial assessment of the archaeology carried out, there will be an on-site meeting with the County Archaeologist to determine if further evaluation work is appropriate in order to meet the objectives.
- 14.3 The Archaeological Contractor will liaise closely with the County Archaeologist throughout the course of the evaluation and will arrange for on-site meetings at key decision points.
- 14.4 The Archaeological Contractor is to make contact with the local archaeological society and keep them informed on the progress of the evaluation. Subject to health and safety constraints the Archaeological Contractor will afford opportunity to the local archaeological society to visit the evaluation site. Copies of all reports will be provided to the local archaeological society.
- 14.5 The Archaeological Contractor is to circulate a completed Fieldwork Notification Form (Appendix 3) at the start and completion of fieldwork and at the completion of post excavation reporting stages.
- 15. Copyright and data protection**
- 15.1 Information submitted to the County Archaeologist in conjunction with planning applications automatically becomes publicly accessible and can be viewed by anyone at any time. In addition, the Local Planning Authority and Kent County Council are subject to the

requirements of the Freedom of Information Act (2000) and Environmental Information Regulations (2004). Information may be subject to Fol or EIR requests and any documentation submitted in connection with the project may be made publicly available unless doing so contravenes the Data Protection Act (1998).

- 15.2 While copyright of reports and other information arising from the fieldwork remains with the originator, the Archaeological Contractor will undertake to make this information available to interested parties. The Archaeological Contractor will agree to allow reports of the fieldwork to be copied and made available to interested parties for archaeological research. The reports may be made available on the Internet no sooner than three months after the submission of the report. Archaeological Contractors who believe that there are special reasons for not publishing the report on the Internet should reach a separate agreement with the County Archaeologist.

16. Health and Safety

- 16.1 The Archaeological Contractor will conduct the work in compliance with the Health and Safety at Work etc Act 1974. The Archaeological Contractor will also follow the guidance set out in "Health and Safety in Field Archaeology" Standing Conference of Archaeological Unit Managers 1997.
- 16.2 The Archaeological Contractor is expected to maintain a Health and Safety Policy and a procedures manual and have available appropriate expertise in Health and Safety advice. Site staff will have an appropriate level of training to enable them to carry out fieldwork safely.
- 16.3 The Archaeological Contractor will maintain the site in a safe condition. All hazards will be appropriately identified and managed. Deep excavations will be appropriately fenced.
- 16.4 The Archaeological Contractor will carry out a risk assessment prior to commencement of fieldwork and where appropriate a COSHH assessment. Risks and measures to reduce risk will be communicated to all working on and visiting the site.
- 16.5 The Archaeological Contractor will have available suitable site accommodation, welfare and toilet facilities.

17. KCC HER

- 17.1 The Archaeological Contractor is to provide the Kent Historic Environment Record with copies of all reports in both hard-bound hard-copy and digital format (see 12.6 above).
- 17.2 Upon completion of the excavation the Archaeological Contractor will supply the Kent Historic Environment Record with a completed HER form (see Appendix 3)
- 17.3 The Archaeological Contractor will supply the Kent Historic Environment Record with the following digital datasets:
- A .dxf file containing polygon data that describes in detail all excavated/ watched area boundaries, whether trenches, test pits, excavated areas or areas examined by watching brief. This .dxf file must be internally geo-referenced (i.e. the co-ordinate system used in the file must be the Ordnance Survey co-ordinate system).
 - A separate .dxf file that contains a number of Layers. Each Layer should represent a different phase of the archaeological remains on site. The name of each Layer must be the phase number used on the site accompanied by a date range (e.g. "2, from –2000 to –800", "7A, from 410 to 700" etc). Each layer must contain only the features relevant to that phase digitized as polylines. Where the dating is based on scientific dating methods such as radiocarbon, the dates must be calibrated calendar dates.
- 17.4 A guidance document has been produced for Kent County Council that will inform contractors as to how this information can be produced within AutoCad. This document is available from the County Archaeologist and Kent County Council Historic Environment Record.
- 17.5 The Archaeological Contractor should also provide a representative selection of digital site photographs illustrating the archaeology of the site and the operations of the investigation.

These will be in .jpg format at a minimum 300dpi. These will be deposited with the County HER and will be used for presentations on aspects of the archaeology of Kent.

- 17.6 It is to be understood that photographs and notes taken by KCC Archaeological Officers in connection with the work that do not identify individuals or site locations may be used by KCC for outreach and publicity purposes, including on social media sites such as Facebook, Twitter etc. The Archaeological Contractor should, **preferably in advance** of the works, raise with the KCC Archaeological Officer any concerns that they or their client may have over the use and dissemination of images or information for outreach purposes. In such cases the Archaeological Contractor and their client will agree a protocol with the KCC Archaeological Officer for the appropriate dissemination and use of images and information which balances the concerns of the contractor and/or client with the objective of ensuring that the people of Kent are kept informed of the archaeological discoveries in the county.'

18 General

- 18.1 In carrying out the work the Archaeological Contractor is to abide by:

- all statutory provisions and by-laws relating to the work in question,
- the Institute of Field Archaeologists *Code of Conduct*,
- the Institute of Field Archaeologists *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*.

APPENDIX 2. KENT COUNTY COUNCIL MANUAL OF SPECIFICATIONS PART B: SPECIFICATION FOR PRELIMINARY EVALUATION OF QUATERNARY DEPOSITS AND PALAEOLITHIC POTENTIAL

1. Introduction

- 1.1 A preliminary evaluation for Quaternary deposits and Palaeolithic potential involves limited intrusive investigation of a site to determine initially whether Quaternary deposits are present/absent, and to provide a preliminary indication of their nature, distribution and Palaeolithic potential.
- 1.2 A preliminary evaluation is much more restricted in scope and intensity than a standard field evaluation. However, if/when Quaternary deposits are found, then they will be subject to similar methods of investigation and standards of recording, as specified below.
- 1.3 If/when Quaternary deposits are found, then the preliminary evaluation will typically be followed by a more intensive field evaluation to investigate their nature, distribution and Palaeolithic potential in more detail.
- 1.4 A preliminary investigation will typically use any, or a combination of, four methods of investigation: (a) window-samples, (b) cable/percussion boreholes, (c) cleaning/recording of standing sections and (d) machine-excavated test pits.
- 1.5 The approach, or approaches, required are specified in the site-specific Part A of the Kent County Council project specification.

2. General requirements

- 2.1 Preliminary evaluation will be carried out by archaeological organisations (from here on referred to as 'the Archaeological Contractor') with recognised experience and expertise in the specified type of work to be undertaken. Registration with the Chartered Institute for Archaeologists (CIfA) as a Registered Organisation (RO) will normally be considered as an indicator, but not a prerequisite, of such expertise and experience. A good working knowledge of the archaeology of Kent will also be considered highly desirable.
- 2.2 The work will be supervised on site at all times for the Contractor by a member of staff with the required level of experience and who will be responsible for the conduct of on-site work.
- 2.3 A designated specialist (or specialists) with Palaeolithic and Quaternary geological expertise should be engaged to supervise the work in the field in conjunction with the Contractor, and to carry out subsequent reporting of the results. A relevant PhD or equivalent research experience and a suitable body of previous work and practical experience, including good working knowledge of the Quaternary deposits of the study region, would normally be considered a pre-requisite to demonstrate suitable expertise. CVs should be provided for any specialists.
- 2.4 The identity of the specialist (or specialists) and the scope of their work should be agreed with the County Archaeologist before the work commences, and then the named specialist/s should carry out the agreed work. If it then becomes necessary for the agreed specialist/s to be replaced or for parts of the agreed work to be carried out by anyone other than the agreed specialist/s, then these variations should also be agreed in advance with the planning authority.
- 2.5 Prior to any work being undertaken the Archaeological Contractor will inform the County Archaeologist and communicate details of the proposed team, including (if required) CVs for senior staff and specialists. Senior staff and specialists will need to demonstrate an appropriate level of experience and expertise and should preferably be, where appropriate, Members of the Chartered Institute for Archaeologists (MCIfA).
- 2.6 Prior to undertaking the preliminary evaluation the Archaeological Contractor will need to demonstrate that the necessary resources are in place to undertake the work, through to reporting. The Archaeological Contractor will have available appropriate specialists necessary to support the successful completion of the archaeological fieldwork and post-excavation work.

3. Pre-site requirements

3.1 Prior to undertaking preliminary evaluation the Archaeological Contractor will have gathered and considered the following information:

- relevant information on the Kent Historic Environment Record (HER) held by Kent County Council and maintained by the Heritage Conservation group
- any earlier reports of fieldwork relevant to the site
- Solid and Drift geology
- geotechnical site investigation data (if available)
- British Geological Survey on-line borehole data
- any desk-based studies of the site

3.3 In certain circumstances the following will also be considered:

- relevant published secondary sources
- relevant historic maps held at the Centre for Kentish Studies
- aerial photographs where cropmarks are considered to indicate archaeology on or close to the site

3.3 The Archaeological Contractor will ensure that all reasonable measures have been taken to identify any constraints to undertaking the preliminary evaluation work. The Archaeological Contractor will seek information on the presence of services, any ecological constraints, the presence of Public Rights of Way, the presence of contaminated land or any other risks to health and safety. Attention will be paid to avoiding any trees, protected or otherwise, that are to be retained or to avoid damage to the roots thereof. Prior to the commencement of fieldwork, the Archaeological Contractor shall agree with the developer, or their agent, any fencing required during the works and requirements for reinstatement at completion. The Archaeological Contractor shall ensure that arrangements are in place for appropriate reinstatement prior to the commencement of any excavations.

3.4 The Archaeological Contractor will make provisional arrangements for the deposition of the site archive with an appropriate museum or suitable repository agreed with the County Archaeologist. The Archaeological Contractor will obtain a provisional accession number for the site archive from the recipient museum (except where the museum prefers to issue an accession number following completion of fieldwork) and any guidelines from the recipient museum regarding deposition of the site archive.

3.5 Full copies of the Specification must be issued to the field officer responsible for on-site work and a copy of the agreed Specification and any additional method statements must be available on site at all times. The team carrying out the preliminary evaluation must be familiar with the Specification and have access on site to any previous evaluation or survey reports.

3.6 The Archaeological Contractor will inform the County Archaeologist of the start date of the work (at least five working days before) and arrange for monitoring visits to be undertaken, using the Fieldwork Notification Form & HER Summary Form (see Appendix 3). The Archaeological Contractor will continue to keep the County Archaeologist informed of the progress of work and will notify the County Archaeologist immediately if particularly important archaeological remains are encountered.

4. Aims and objectives

4.1 The general aims of the preliminary evaluation are to:

- establish the broad presence/absence, nature, character, distribution, extent and depth of Quaternary deposits across the site and, where necessary, to correlate these as a deposit model
- develop a preliminary assessment of the possible Palaeolithic potential of the site
- establish a broad preliminary model for the site's archaeological potential, by identifying preliminary Historic Environment Areas (HEAs) of different character and potential (see section 9.7 below)

4.2 More-specific objectives of the preliminary evaluation are thus to:

- ascertain (where Quaternary deposits are encountered) their extent, depth below ground surface, character, date and Palaeolithic potential
- establish the extent to which previous development and/or other processes have affected Quaternary deposits at the site
- establish the likely impact on any surviving Quaternary deposits of the proposed development
- determine the presence and potential of lithic artefact evidence and faunal remains in the sediments encountered
- determine the presence and potential of palaeoenvironmental evidence in the sediments encountered
- determine the presence of, or potential for, undisturbed primary context Palaeolithic occupation surfaces in the sediments encountered
- interpret the depositional and post-depositional history of any artefactual or biological evidence found
- establish correlations of any Pleistocene deposits found with reference to adjacent and regional sequences and to national frameworks
- assess in local, regional and national terms, the archaeological and geological significance of any Pleistocene deposits encountered, and their potential to fulfil current research objectives
- establish whether there is a need for further, more-detailed, field evaluation to clarify the Palaeolithic potential, and if so to make recommendations on the methods and location of further intrusive or non-intrusive works

4.3 Further site-specific aims and objectives may be specified in Part A.

5. Scope and methods

5.1 The preliminary evaluation will involve any, or a combination of, the following four methods of investigation: (a) window-samples, (b) cable/percussion boreholes, (c) cleaning/recording of standing sections and (d) machine-excavated test pits. The site-specific specification (Part A) will determine which of these methods is applicable for the current site, and the number and location of interventions.

5.2 Generic specifications for the application of these methods are given below, but only those specified for this specific site (see Part A) need be followed in carrying out the preliminary evaluation.

5.3 Window samples [not relevant]

5.4 Cable percussion boreholes [not relevant]

5.5 Recording of standing sections[not relevant]

5.6 Machine-excavated test pits

5.6.1 The layout and number of test pits will be in accordance with the site-specific specification (see Part A). Test pits may on occasion need to be slightly moved at discretion of the on-site field supervisor and Palaeolithic specialist to avoid post-Palaeolithic remains or for other circumstances such as the presence of services or features such as trees, overhead cables, etc.

5.6.2 Each test pit will be dug by a tracked 10-20 tonne 360° mechanical excavator (or other suitable type to be agreed with the County Archaeologist) with a toothless bucket of the same width as the trial trenches. Each test pit will be one bucket-width wide, 3-4m long and up to 5m deep. If sediments are too tough for excavation to be achieved with a toothless bucket, then it is acceptable to switch to a toothed bucket, although the toothless bucket must be reverted to whenever possible. Excavation will cease at a shallower depth if it is clear that Quaternary deposits are not present, and that pre-Quaternary deposits have been reached; care will be taken to ensure that the presence of Quaternary deposits has not been masked by pre-Quaternary deposits having been redeposited on top of in situ Quaternary deposits. Excavation will cease if primary context Palaeolithic evidence is encountered, and the County Archaeologist informed.

- 5.6.3 Each test pit will be taken down in horizontal spits of 5-10cm, respecting the interface between sedimentary units when unit changes are encountered. The work will be directed by a recognised Palaeolithic specialist with experience of recording and interpreting Pleistocene sediments, who will record and number the sequence of sedimentary units as excavation progresses following standard descriptive practices. The textural characteristics (grain-size, consolidation, colour, material and sedimentary structures) of sedimentary units will be recorded, and the shape and nature of their lithostratigraphic contacts (dip, conformity and overall geometry). Test pits will be entered at the maximum safe depth (based on an assessment of the ground conditions by a competent person) to record the upper stratigraphy. After excavation has progressed beyond this depth, recording will typically take place without entering the test pit. It may, however, be occasionally necessary to widen and step out the upper part of a test pit to allow direct access to its lower part, for instance for controlled artefact/fossil recovery, to investigate for the presence of an undisturbed landsurface, or for controlled sediment sampling.
- 5.6.4 On-site spit/sieve sampling. Spit-samples of at least 150 litres will be numbered, their position in the stratigraphic sequence recorded, and set aside at regular c. 25cm intervals as excavation progresses. At least 100 litres from each spit-sample will be dry-sieved on site through a c. 1cm mesh for recovery of lithic artefacts and faunal remains. If the sediment encountered is not suitable for dry-sieving (i.e. too clayey), excavation will proceed in shallower spits of c. 5cm, looking carefully for the presence of any archaeological evidence, and the spit samples will also be carefully investigated by hand (using archaeological trowels) for any archaeological evidence. The remainder of the spit-sample may be sampled for palaeoenvironmental biological remains (see details below) or clast lithology, if appropriate.
- 5.6.5 Palaeoenvironmental sampling. The presence/potential for palaeoenvironmental micro-biological evidence such as pollen, insects, molluscs and small vertebrates will be assessed for each sediment unit by field inspection by the Palaeolithic/Quaternary specialist. He/she will consider the potential of the sediments encountered, and guide sampling as appropriate (including specifying any special needs for off-site processing methods). Provision should be built into the archaeological programme for processing any samples taken and reporting on the results at the evaluation stage.
- 5.6.6 Chronometric dating. Consideration will be given to the suitability of any sediment units encountered for optically stimulated luminescence dating (OSL). Samples for analysis should ideally be taken with *in situ* dosimetry readings using a portable gamma ray spectrometer. This can be done under the guidance of the Palaeolithic specialist in the field at the evaluation stage, if the appropriate equipment is available, or carried out subsequently. If suitable sediment is encountered it is advisable to take an OSL sample anyway, even without *in situ* dosimetry measurement, as this sample can still provide a date, in case there is no future opportunity for renewed investigation.
- 5.6.7 Section drawing and photography. A representative section from each test pit will be drawn at a scale of 1:20 and photographed in colour (digital) once excavation has reached its full depth, and at appropriate stages in the course of excavation if features of interest are revealed. Other sections will also be drawn and/or photographed as appropriate, particularly where more complex stratigraphy is encountered. A series of working shots will also be maintained during the course of the fieldwork.
- 5.6.8 Backfilling. Each test pit will be dug in turn and backfilled as soon as possible following excavation and the completion of recording. No test-pits will be left open untended or overnight. In exceptional circumstances (for instance by special request of the County Archaeologist) Palaeolithic test pits may be left open for longer periods if deemed safe to do so, but these will then have to be fenced off and marked with clear warning signs. The Archaeological Contractor shall ensure that arrangements are in place for appropriate reinstatement prior to the commencement of any excavations.
- 5.6.9 Post-Palaeolithic features. Careful attention will be paid to the presence of any post-Palaeolithic features or remains in the upper part of natural deposits. If post-Palaeolithic archaeological remains are encountered excavation will cease, the exposed features or deposits carefully cleaned and recorded; the County Archaeologist will be informed if significant remains are encountered. Where vulnerable archaeological deposits have been identified these will be

appropriately protected from damage prior to backfilling. Consideration will be given to providing a marker in backfilled trenches to highlight vulnerable archaeological deposits should re-excitation be necessary. The Palaeolithic test pit will then be located in a different place to avoid affecting more recent remains.

- 5.6.10 Service avoidance. Before excavation begins the statutory authorities will be consulted, where this has not already been done, for information regarding the presence of any below/above ground services. The site will be walked over and inspected to visually identify, where possible, the location of above and below ground services. Test pit locations will be scanned before excavation commences with a Cable Avoidance Tool (CAT) to verify the absence of any live underground services. Any site procedures concerning permissions to dig will be followed.

6. Finds recovery, processing and treatment

- 6.1 All artefacts recovered during the excavations on the site are the property of the Landowner. They are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, *Conservation Guidelines no.2* and on completion of the archaeological post-excavation programme the landowner will arrange for them to be deposited in a museum or similar repository agreed with the County Archaeologist and the Local Planning Authority.
- 6.2 Artefacts will be excavated carefully by hand. The Archaeological Contractor will use an appropriately qualified and experienced archaeological conservator to assist in the lifting of fragile finds of significance and/or value.
- 6.3 Artefacts will be collected and bagged by archaeological context. The location of special finds will be recorded in three dimensions. Three-dimensional recording of in-situ flint working deposits will be carried out.
- 6.4 Where appropriate to address the research objectives of the archaeological evaluation, sieving of deposits will be undertaken to maximise recovery of small artefacts. A strategy for such sieving will be agreed in advance with the County Archaeologist.
- 6.5 Records of artefact assemblages will clearly state how they have been recovered, sub-sampled and processed.
- 6.6 Excavated artefacts will be bagged upon recovery or placed in finds trays. They must not be left loose on site.
- 6.7 All metal objects, other than late post medieval objects, will be X-rayed unless otherwise agreed with the County Archaeologist.
- 6.8 Treatment of treasure. Finds falling under the statutory definition of Treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to the relevant Coroner's Office, the Kent Finds Liaison Officer (FLO) who is the designated treasure co-ordinator for Kent, the landowner and the County Archaeologist. A Treasure Receipt (obtainable from either the FLO or the DCMS website) must be completed and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is Treasure. Failure to report within 14 days is a criminal offence. The Treasure Receipt and Report must include the date and circumstances of the discovery, the identity of the finder (put as unit/contractor) and (as exactly as possible) the location of the find.
- 6.9 Scientific dating. The Archaeological Contractor will make appropriate provision for the application of scientific dating techniques such as radiocarbon, dendrochronology, palaeomagnetic dating, OSL and thermoluminescence dating. The advice of the Historic England regional Scientific Advisor will be sought in advance of the application of these techniques. The Archaeological Contractor will agree with the County Archaeologist any necessary delay in completion of the reporting of the evaluation to enable provisional results to be included.

7. Surveying and recording

- 7.1 All interventions (test pits, boreholes, window samples and/or cleaned sections), deposits and finds will be recorded according to accepted professional standards. Sufficient data must be recorded to allow the required level of assessment and reporting (see section 9).
- 7.2 As a minimum, the locations and ground-surface level of all interventions need to be surveyed to 1cm accuracy.
- 7.3 All interventions should be recorded individually on separate record sheets, with each record sheet including details of the location co-ordinates (NGR to 0.01m) and ground surface height (OD), the sediment sequence encountered, and any finds made and/or sampling carried out. A further, more general record of the work, comprising a description and discussion of the archaeology, is to be maintained as appropriate.
- 7.4 A plan to indicate the location of the boundaries of the evaluated area and the site grid is to be drawn at a scale of 1:1250 (or a similar appropriate scale). Plans indicating the locations of the interventions are to be drawn at an appropriate scale. Sections will typically be drawn at a scale of 1:20, although can also be drawn at 1:10 or 1:50 if appropriate.
- 7.5 All section drawings will include a horizontal datum line, with both ends (and intervening points along the line if appropriate) tied in with the OS grid to 0.01m accuracy, and with its height above OD surveyed to the same level of accuracy. All plans and sections are to be levelled with respect to OD.
- 7.6 All plans and sections are to be drawn on polyester based drafting film and clearly labelled.
- 7.7 A full colour digital photographic record of the work is to be kept, including general shots of work in progress and a day-to-day digital photographic record of the investigation. The photographic record is to be regarded as part of the site archive.
- 7.8 The Archaeological Contractor will ensure that the complete site archive including finds and environmental samples are kept in a secure place throughout the period of evaluation and post excavation works.
- 7.9 The site archive is to be consolidated after completion of the evaluation work, with all records and finds collated and ordered as a permanent record.

8. Reinstatement and completion of fieldwork

- 8.1 On completion, all interventions will be backfilled or otherwise reinstated and left in a safe state to the requirements of the landowner / client.
- 8.2 Palaeolithic test pits should by default be backfilled directly after excavation of each has been completed, and before excavation of further test pits commences. In exceptional circumstances (for instance by special request of the County Archaeologist) Palaeolithic test pits may be left open for longer periods if deemed safe to do so, but these will then be fenced off and marked with clear warning signs.
- 8.3 Where vulnerable archaeological deposits remain in the ground these will be appropriately protected from damage as part of the reinstatement. Consideration will be given to providing a marker to highlight vulnerable archaeological deposits should re-excavation be necessary.
- 8.4 On completion of fieldwork the Archaeological Contractor will complete the relevant section of the Fieldwork Notification Form and submit it to the County Archaeologist.

9. Reporting

- 9.1 Within three weeks of completion of the fieldwork (or longer in case of complex sites as agreed with the County Archaeologist) the Archaeological Contractor and specialist/s will produce a report, copies of which (as a minimum) are to be provided to:
- the Developer
 - the County Archaeologist

- the Local Planning Authority
 - the Local Archaeological Society
- 9.2 When submitting the report to the County Archaeologist the Archaeological Contractor will provide written confirmation that the report has been submitted to the above parties.
- 9.3 If the Archaeological Contractor is required, contractually, only to submit reports directly to the developer or their agent, the Archaeological Contractor must inform the County Archaeologist in writing that they have completed the report and whom it has been forwarded to. The Archaeological Contractor must ensure that the developer is made aware of the need to circulate the report as in 9.1 above.
- 9.4 The Archaeological Contractor may determine the general style and format of the evaluation report, but it must be completed in accordance with this specification. The report must provide sufficient information and assessment to enable the County Archaeologist and the Local Planning Authority to reach an informed decision regarding any further mitigation measures that may be required and to stand as an appropriately detailed report on the archaeological fieldwork for future research.
- 9.5 Reports that do not provide sufficient information or that have not been compiled in accordance with the relevant sections of this specification will be returned to the Archaeological Contractor for revision and resubmission.
- 9.6 The report will be submitted to the County Archaeologist in a hard-bound hard-copy and in digital format. The digital copy will be supplied in .pdf format and will contain all text, images and plans present in the hard-copy report in a single .pdf file.
- 9.7 **Report Format** - The final preliminary evaluation report will include as a minimum:
- 9.7.1 An **Abstract** summarising the scope and results of the preliminary evaluation.
- 9.7.2 An **Introduction** including:
- a map showing the site location, with OS grid lines and a linear scale
 - the location of the site with National Grid Reference for the centre sufficient to locate the site to 1m accuracy (e.g. TQ 44444 77777, or 12-figure NGR 544444 177777)
 - an account of the background and circumstances of the work
 - a description of the development proposals, planning history and planning reference together with the archaeological condition (where appropriate)
 - the nature of potential impacts arising from the proposals
 - the scope and date of the fieldwork, the personnel involved and who commissioned it
- 9.7.3 An account of the **Archaeological Background** of the development site including:
- geology, soils and topography, including a description of the likely pre-Quaternary and Quaternary geology of the proposed development site and the surrounding area up to 3km from the site boundary, so far as could be interpreted prior to the preliminary evaluation work
 - any known existing disturbances on the site
 - background archaeological potential of the site for (a) Lower/Middle Palaeolithic, and (b) Upper Palaeolithic. This will include a review of known Historic Environment Record (HER) entries and other relevant records within the site, and for up to 3km from the site boundary. The HER entries will be quoted with their full KHER identifier (e.g. TR 36 NW 12)
 - summary of any previous phases of archaeological investigation at the development site
- 9.7.4 A review of the **Aims and objectives** of the evaluation as specified in the site-specific (Part A) and generic (Part B) specifications must be detailed in the report, together with any further objectives identified during the course of the evaluation.
- 9.7.5 The **Methodology** employed during the preliminary evaluation must be detailed in the report, including a description of the range and quantity of different interventions and a site layout plan showing all interventions. Any constraints on the evaluation will also be described. Simply referring to the methodology outlined in the specification is not acceptable.

- 9.7.6 The **Results** of the preliminary evaluation will be described for each trench/test-pit, borehole or standing section, including location, dimensions, nature of deposit encountered. The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.
- 9.7.7 Any results from the application of archaeological scientific techniques e.g. specialist dating will be included in the evaluation report.
- 9.7.8 An integrated **Quaternary stratigraphic framework** and deposit phases across the site, with interpretation of formation processes and deposit date, supported by (a) fence diagrams showing representative stratigraphic cross-sections across the site and (b) an appendix with full sedimentary descriptions of the sequence in each test pit, the ground surface height (mOD) at each test pit, the depth and thickness of each sedimentary unit identified during excavation, the sampling of each sedimentary unit, the finds and palaeoenvironmental evidence recovered from each sedimentary unit, and a representative photo of the full sequence in each test pit.
- 9.7.9 **Finds recovery**, including lithic artefacts and any larger mammalian fossils, including sub-sections (supported by tables as appropriate) covering:
- on-site sieve sampling for, and recovery of, artefacts tied in with the integrated Quaternary stratigraphic framework
 - a summary report on any lithic artefacts recovered, describing their technology and typology, assessing their condition and degree of disturbance, their importance and relevance to Palaeolithic research priorities, and their potential for further analysis
 - summary reports on any mammalian bones and other palaeoenvironmental remains recovered, assessing their condition and degree of disturbance, their importance and relevance to Palaeolithic/Quaternary research priorities, and their potential for further analysis, supported by any relevant specialist reports as appendices
- 9.7.10 A **Quaternary dating and stratigraphic framework**, tied in with the global MIS framework and any key site-specific regional horizons and nearby sites.
- 9.7.11 A **Preliminary site model of deposit character and Palaeolithic potential**, dividing the site into Palaeolithic Historic Environment Areas (HEAs) of differing character and potential, supported by an appendix giving attribute details for each separate Palaeolithic HEA of its characteristic Quaternary deposits, its potential significance for Palaeolithic remains (including palaeoenvironmental remains) and suitable approaches to further investigation.
- 9.7.12 The area covered by the HEA model should include a buffer zone of 50m around the site boundary, although it is recognised that modelling of the buffer zone may be based on less substantive data than within the site.
- 9.7.13 An **Impact Assessment** will consider the potential effects of the development on the sub-surface Quaternary deposits and any likely remains. The report will highlight any areas of sensitivity within the site. Particular note will be made of any variations in the depth of overburden covering any Quaternary deposits.
- 9.7.14 The **Conclusion** will summarise the method, results, interpretation and impact assessment.
- 9.7.15 The conclusion will assess the potential of the site for preservation of Palaeolithic remains at the site, and the likely importance of any remains with reference to regional and national research priorities. It will then identify any priorities for further, more detailed Palaeolithic evaluation, and make recommendations for suitable approaches to further intrusive or non-intrusive investigation to achieve a satisfactory understanding of the Palaeolithic potential of the site.
- 9.7.16 The evaluation report will include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.
- 9.7.17 The report will include a quantification of the project archive contents, their state and future location.

- 9.7.18 **Figures / illustrations** – The report will include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to be fully cross-referenced within the document text. As a minimum the evaluation report will include the following figures:
- a site location plan tied into the Ordnance Survey at 1:1250 and showing the site boundary. The plan will also include at least two National Grid points to 1m accuracy, north arrow and a linear scale
 - a site layout plan showing all intervention locations at an appropriate scale and the distribution of Palaeolithic HEAs. A copy of the plan will be overlain on the proposed development plan where this is known. Projections of HEAs for 50m beyond the site boundary will be shown on the plan. This plan will also include two National Grid points, north arrow and a linear scale
 - relevant section drawings as appropriate
 - illustrations and/or photographs of significant finds
- 9.7.19 All report illustrations must be fully captioned and scale drawings must include a linear scale. Standard archaeological drawing conventions must be used. North must be included on all plans and will be consistent. Sections must indicate the orientation of the section and the Ordnance Datum height of the section datum.
- 9.7.20 Black & White or Colour photographs will be included to illustrate key archaeological features, interventions and site operations. All photographs will be appropriately captioned.
- 10. Archive preparation & deposition**
[as per Appendix 1, section 13]
- 11. Monitoring and liaison**
[as per Appendix 1, section 14]
- 12. Copyright and data protection**
[as per Appendix 1, section 15]
- 13. Health and Safety**
[as per Appendix 1, section 16]
- 14. KCC Historic Environment Record**
[as per Appendix 1, section 17]
- 15. General**
[as per Appendix 1, section 18]

APPENDIX 3. KENT COUNTY COUNCIL HER SUMMARY AND FIELDWORK NOTIFICATION FORM

Sections A and B to be sent digitally to KCC Heritage Conservation Group <u>in advance of the start of fieldwork</u> . Section C to be completed and sent <u>at end of fieldwork</u> . Section D to be filled in and sent with completed report.				
SECTION A - PROJECT DETAILS				
Site/Project Name:			NGR:	
Site Address:				
Archaeological Contractor (inc name and address of project contact):				
Commissioning Body/Client:				
Development Proposals/Reason for Fieldwork:			Planning Reference:	
SECTION B - COMMENCEMENT OF FIELDWORK				
Type of Archaeological Fieldwork:		Site Supervisor:		
		Site Contact Details:		
Specification for Works?:				
Local Museum Notified:				Site Code:
	Date:			
Local Arch Soc Notified:				
	Date:			
START DATE:		ANTICIPATED DURATION:		days/weeks
I (archaeological contractor) confirm that all necessary provision has been made for the resources to complete the archaeological fieldwork, post-excavation analysis and reporting in accordance with the agreed specification.				
Name:				
On behalf of:				
Signed:			Date:	
SECTION C - COMPLETION OF FIELDWORK				
Date Fieldwork Completed:			Was fieldwork monitored by KCC/EH/Other?	

Further Fieldwork Anticipated:		Who?					
Map attached showing site location and extent of intervention?							
Summary of results (Continue on separate sheet if necessary):							
Agreed Reporting Stages and Program:							
Name:							
On behalf of:							
Signed:		Date:					
SECTION D - COMPLETION OF POST-EXCAVATION ANALYSIS & REPORTING							
Reports Submitted (Titles)	Copies to: (Number)						
	KCC	LPA	Arch Soc	Client	EH	Other	Digital Copies

HER Data:							
Digital Mapping Data?		Notes:					
Location and Destination of Archive:							
Name:							
On behalf of:							
Signed:					Date:		

Guidance for Completing the Kent Archaeological Fieldwork Notification Form

Purpose

The purpose of the form is to improve the notification, tracking and monitoring of archaeological fieldwork in Kent. Its primary purpose relates to archaeological work being undertaken for the purposes of planning and development but it is hoped that it will be also usable by archaeological societies and other bodies undertaking fieldwork in the county.

Approach

- The archaeological body undertaking the fieldwork should fill in the form. Sections A and B should be filled in before fieldwork starts and submitted to the County Archaeologist. This may be submitted in digital copy to speed things along but a signed copy should follow in the post.
- Section A contains details of the project while Section B refers specifically to the onset of the phase of fieldwork. In signing section B the Archaeological Contractor is confirming that the necessary funds and resources to complete the works to the specification have been made available.
- The form should not be filled in separately for each period of an intermittent watching brief but should be filled in for major stages of fieldwork, for example separate phases of evaluation and excavation.
- Section C should be submitted at the completion of the fieldwork stage and should if known indicate whether further work is anticipated. This section sets out a brief summary of findings and what reports are to be submitted. For excavations these will include interim, assessment and full reports. Again the form may be submitted digitally with a signed copy to follow in the post. (The details of Sections A and B should remain filled in on the same form).
- Section D should be submitted as reports are submitted to the County Archaeologist. For excavations the form need not be submitted with interim reports but should be submitted with assessment and full reports.