



KENT ARCHAEOLOGICAL PROJECTS

Kent Archaeological Projects
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Part A: Site-specific written scheme of investigation for an archaeological evaluation and any consequent preservative safeguarding to be undertaken during and following groundworks on land east of The Old Parsonage, Butchers Hill, Shorne, Gravesend, Kent DA12 3EB prior to the construction of an agricultural barn with yard, retaining wall and associated excavation works (Planning Reference 20220080)

1 Introduction

- 1.1 This specification is concerned with an archaeological investigation by evaluation trench and consequent preserving safeguarding of any exposed significant archaeological remains, the evaluation to be undertaken prior to groundworks related to the proposed development.
- 1.2 The proposed development will take place on land lying east of The Old Parsonage, Butchers Hill, Shorne, Gravesend, Kent DA12 3EB, which land is presently used for grazing. Planning consent (Planning Reference 20220080) was granted by Gravesham Borough Council on the 19th May 2020 for a development on land east of The Old Parsonage, Shorne. The application was for change of use from grazing land to agricultural building, comprising the erection of an agricultural barn with yard, a retaining wall and associated excavation works

1.3 Condition 6 of the planning consent required that:

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*

1.4 The planning consent was applied for by Mr D. South, C/O Mr Jonathan Bolton, Synergy Planning & Property Consultants Synergy, The Office, The Larches, Higham, Rochester ME3 7NQ

1.5 The archaeological investigation will be maintained by a recognised **archaeological contractor** (Kent Archaeological Projects), the responsible operative from which will undertake the work according to the terms of a standard Kent County Council specification for evaluations (see **Part B** below).

2 Site location and description

2.1 The site is centred on National Grid Reference TQ 69029 70972 and lies in open grazing land located some 150m east of Mill Hill road on the southwest edge of the village of Shorne (see figures below for site location and the proposed ground plan for the development). The site lies a short distance to the north, northeast and east of a heavily wooded area called Shorn Woods, once part of the medieval Cobham Hall

Estate and now consisting of Randall Wood, Randall Manor, Brewers Wood, Brummelhill Wood and Randall Heath. The wood also encompasses Shorne Woods County Park, which has been the site of protracted archaeological investigation, much undertaken from 2006 - 2015 as part of a community dig undertaken (see Part 4 below).

3 Geology and landscape

- 3.1** The bedrock geology of the area consists of Cretaceous Upper Chalk, described as: ‘the best exposed rock in Kent ... inland exposures, both in chalk pits and road cuttings are too numerous to mention individually, but the extensive chalk pits of the Medway ... and near Gravesend should be noted’ (M^cRae and Burnham 1973, 16). The Tertiary geology of the area consists of sparse, localised deposits of London Clay, which ‘caps many of the small hills around Gravesend’ (*ibid.* 18). The Quaternary geology of the area consists of ‘Head’, which is considered to be highly variable in origin (see, for example Catt *et al* 1987, 141-147). The appropriate Geological Memoir (Dines *et al* 1952, 162) proposes two different schemes, one describing three different types of Head, the other four (see Allen. P. 2004, 4). According to the latter, Head occurs on the north Kent chalklands as ‘simple Head’ occupying valley bottoms, as Head Gravel, as a coombe deposit and as Head Brickearth (see Dines 1927, 12-26; Dines, Holmes and Robbie 1977, 162).
- 3.2** Shorne and its surrounds lie in the West Kent Downs, with this part described in the *Landscape Assessment of Kent* (Kent County Council 2004) as follows:

The south-facing, chalk scarp between the Medway and the Darent provides a strong visual boundary, dividing the Kemsing Vale from the deep, dry valleys and wooded plateau of the West Kent Downs. This sense of separation is increased by the extensive tracts of ecologically valuable deciduous woodlands along the top of the scarp. Woodland is very significant in this landscape, providing an important backdrop for the rolling landform, the network of small country lanes, the scattered settlements and the extensive valley pastures. In the east, around Luddesdown, the fields are contained by thick walls of woodland, and strips of remnant coppice, or shaws, occur frequently along the steeper valley sides. Hidden away among the trees are several medieval buildings, such as Luddesdown Court, constructed from the

local Kentish ragstone, while the villages of Vigo and West Kingsdown are set deep in the woodlands themselves. The clay-with-flints soil on the plateau and ridge tops is reflected in the pasture and woodland dominating these areas; in the valleys, the extent of the finer silt soils is reflected by the predominance of arable cultivation. The downland becomes increasingly open in the north, where the intimate character of the scarp top gives way to a large-scale landscape of intensively farmed, rolling valleys and large blocks of deciduous woodland. West of Rochester, the mature woodlands and historic parkland of Cobham Hall are severed from the deciduous coppice woodlands of Shorne Wood Country Park by the busy A2 trunk road and the Channel Tunnel Rail Link (CTRL).

4 The site's archaeological and historical background

4.1 The name Shorne derives from the Saxon word "Scora" meaning a steep slope, this for the most part aptly describing 'the situation of Shorne Parish as it hugs the slope of the hill lying halfway between the town of Gravesend and the City of Rochester upon Medway on the North Downs, Kent.' (Allen, undated, 2). Hasted (1797, 442) provides earlier variants of the place name: 'Northward from Cobham lies Shorne, called in the Textus Rossensis, Scorene, and in other antient records, Sores and Schorne.'

4.2 The Heritage Management summary of the archaeological work undertaken on the Randall Manor site (Kent County Council 2022, 10) is as follows:

The site is known to have been used by people for many thousands of years. A series of worked flint scatters on Randall Heath and the Burnett have been dated to as early as the Mesolithic period (between 12,000 and 6,000 years ago). Additional worked flints have been identified across the park, particularly where the natural gravel beds are present. The Medieval site of Randall Manor, nestled in a valley, was the home of Sir Henry de Cobham, Sheriff of Kent in 1314. Only the foundations remain, which archaeologists excavated over ten years from 2006 to 2015, with the help of local volunteers. The buildings date from the 13th century and survived up until the late 16th century. The site has now been recorded and reburied to protect the feature.

The banks of a very old road can still be seen nearby, known as a hollow-way, which may be even older than the Manor. It was described as "an ancient waie" in 1614. A recent LiDAR survey (2011) covering the Park has shown that many of the banks around the Manor site may have formed part of the medieval fieldscape that surrounded the Manor. On Randall Heath, a feature previously identified as a Bronze Age barrow, has through excavation been shown to be a medieval windmill mound and later a prospect mound.

- 4.2** Apart from the discoveries made in The Kent County Council Historic Environment Record shows eleven archaeological and other heritage sites within a radius of 500m of the development site. These comprise a spread of Mesolithic flintwork (TQ 67 SE14) made up of Thames picks, scrapers, flakes and cores Chapel Farm (TQ 67 SE 51), a post-modern farmhouse, the find-spot (TQ 67 SE9) of a bronze coin of Tasciovanus, lynchet banks (TQ 67 SE 247) in Randal Wood, a probable medieval trackway (TQ 67 SE 247), also in Randall Wood, a dry pond and an adjacent short section of bank (TQ 67 SE 248), similarly in Randall Wood, Shorne School, (TQ 67 SE 214), which was also a Second World War Battle Head Quarters and a Second World War spigot mortar emplacement (TQ SE 214) at Shorne Hill.
- 4.3** The proposed development site lies approximately 75m south-west of St Peter and St Paul Church. The church, which is a Grade II* listed building (list entry number 1083891), is described as follows:

Main construction periods 1100 to 1873, Church (Saxon, Norman, 13th, 14th and 15th C. work). The church at Shorne was formerly dedicated to St Peter and St Paul, but now only to St Peter. The original church was doubtless small: a nave 40 feet long perhaps, and a chancel circa 20 feet. A double-splayed clerestory window in the north wall of the nave has been described as a Saxon window of the 10th-11th centuries by many authorities. A north aisle was added in Norman times and later, perhaps in the 13th century, the nave and chancel were extended and chapels added to the north and south of the chancel. The south aisle was added late in the 13th century and the west tower and north porch in the 15th century. There is strong evidence to suggest that Shorne was a minster in a secondary wave of minster creation in the 8th to mid-10th centuries.

- 4.4 The present writer has been unable to find any evidence, strong or otherwise, that ‘Shorne was a minster in a secondary wave of minster creation in the 8th to mid-10th centuries’ and no sources for this assertion are referenced. Neither the church nor the village are mentioned in Domesday, the church first being mentioned in 1132, when Henry 1 granted the church of Shorne, ‘with the tithes of corn and lambs, and with the chapel of Cobham appendant, to the Monastery of St Saviour of Bermondsey.’ (Allen, A. F, undated, 2). The view that the church at Shorne was a minster as described above may derive from the proposition that, in Kent ‘... around 400 churches, organised as minsters and dependant churches, had been established by the time of the Norman Conquest’ (Carder, 2004, 31). However, given its absence in Domesday and earlier documents, the church of St. Peter and St. Paul at Shorne is probably better understood as a ‘secondary mother-church’ (Sweetinburgh, 2004, 41) rather than part of a secondary wave of minster creation in the 8th to mid-10th centuries.
- 4.5 That issue aside, the church is almost certainly Anglo-Saxon in origin because the ‘north wall of the nave ... contains an Anglo-Saxon double-splayed clerestory window high up above the arcade ‘. It is further proposed that ‘The original church would have consisted only of a nave and short chancel. A Romanesque style arch in the north nave wall is probably Anglo-Saxon and may have been inserted to give access to a porch or porticus (See History – Shorne: St. Peter and St. Paul @ www.achuchnearyou)
- 4.5 The remains of a medieval chapel dedicated to St. Katherine lie next to Malthouse Lane, some 400m north of the development site. They were described as follows in 1898:

On the right hand of the road leading up to Shorne Street, and opposite Mr. Maplesden's house, stands an antient and fair chapel, or oratory; which, with some additional building, is now used as a Malt house, and a small tenement erected against the east end of it inhabited by the Maltman. I was informed by an antient and creditable person there that in digging the foundation of the new building, or lean to, a stone coffin and many human bones were disturbed. On the north side is a small orchard which probably was the cemetery to it. This edifice has not been mentioned by any writer, nor have I been able hitherto to meet with anything relative to its foundation and

endowment. It is likely to have been raised by some of the eminent proprietors of the manors of Shorne and Eoundall, but this is merely conjectural. (Arnold 1898, 78-85)

5 *Specific aims of the archaeological work*

The specific aims of the evaluation are to establish and characterise in terms of period and type any significant archaeological remains, with particular focus being on remains potentially associated with the nearby church of St. Peter and St. Paul. An additional focus is to ascertain if the site contains archaeological evidence associated with the medieval remains forming part of Randall Manor as discussed in Parts 2 and 3 above.

6 *Methodology*

- 6.1** The evaluation will consist of the supervised mechanical excavation of test trenches, each cut within the footprint of the proposed building and achieving a minimum of 6% of the development area (see Figure 1). The work and any consequent analysis and/or preservation of finds will take place according to a standard Kent County Council specification for archaeological evaluations (see Part B below).
- 6.2** It is proposed that two evaluation trenches of 20m x 1.8m (Figure 3) will be excavated within the development site using a mechanical excavator equipped with a flat bladed, toothless ditching bucket, under archaeological direction.
- 6.3** The investigation of all archaeological deposits will be undertaken by hand using trowel, mattock and spade. All archaeological deposits and features will be examined and recorded in plan and section. Only partial sample excavation of deposits and/or features will take place during this evaluation stage of investigation, the sample excavation being sufficient to identify their extent, form, function, stratigraphic relationship and, if possible, date. All exposed remains identified as archaeologically significant will be sample excavated.

- 6.4** If archaeological features, deposits or artefacts are encountered that are potentially of exceptionally high significance the Kent County Council Senior Archaeological Officer will be contacted in order to discuss how the investigation should proceed.
- 6.5** All finds, including, where appropriate, the results of palaeo-environmental sampling, will be subject to specialist analysis, the results to be incorporated into the evaluation report

7. Reporting

All recording will take place according to established Kent Archaeological Projects procedures, which are as follows:

- 7.1** All features and or deposits will be sample excavated to a minimum of 30% of the their exposed extent in the case of linear (ditch-like or gully-like) features, 50% in the case of features identified as pits, post-holes and post pits, and to a percentage to be agreed with the County Archaeologist in the case of remains considered to be of high archaeological interpretive potential. This will also apply in the event of human remains being exposed.
- 7.2** Sample excavation will take place in most cases in order to cut cross-sections through exposed features, these sections to be subject to measured drawing as scales of 1:10 or 1:20. Similarly, all exposed features will be drawn in plan at scales of 1:10 or 1:20.
- 7.3** All features will be photographed with the feature's context recording number (CRN), a scale and a north sign clearly visible in the photograph. Photographs of each evaluation trench will also be taken following the completion of excavation, the trench number, a north sign and, where relevant CRNs, also clearly visible in the photographs.

8. Monitoring

The project will be monitored on behalf of the Local Planning Authority by the Senior Archaeological Officer of Kent County Council. Kent Archaeological Projects will

inform the Archaeological Officer of the start-date of the evaluation and will liaise with the Officer throughout the duration of the project.

9. Archiving

- 9.1** A comprehensive report containing the detailed results of the evaluation will be prepared on completion of the investigation. The report will comprise a summary of the results of the evaluation and a brief appraisal of their significance, a description of the project's planning background and the site's broader geological, archaeological and historical setting, followed by a detailed account of the evaluation's results. The report will include quantified descriptions of finds, specialist reports, appropriate references, illustrative plans, sections and photographic plates. A statement of the overall archaeological significance of the results will also be provided. The report will be compiled according to the terms Annex 2 of the Chartered Institute for Archaeologists Standards and Guidance for an Archaeological Evaluation and will also contain the KCC HER Summary Form summarizing the results as an appendix.
- 9.2** The report will be submitted to the Senior Archaeological Officer of Kent County Council for comment within three months of completion of the fieldwork. Following approval, a digital copy of the report will be sent to the client. Subject to any contractual requirements on confidentiality, one digital copy (PDF file) of the report will be submitted to the Kent Historic Environment Record within six months of completion of the report.

10. Insurance

In compliance with Employers' Liability (Compulsory Insurance) Regulations 1998, Kent Archaeological Projects is insured with Aviva Insurance to the sum of £10,000,000, costs inclusive (Policy Number 24765101 CHC/UN/000259), with legal liability insurance to the sum of £5,000,000 (Policy Number as above) in the aggregate in respect of Product Liability.

References

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- McRae, S. G. and Burnham, C. P. *The Rural Landscape of Kent*, 1973
- Sweetinburgh, S., 2004, 'Territorial Organisation of the Church' in *An Historical Atlas of Kent* (eds. T. Lawson and D. Killingray)

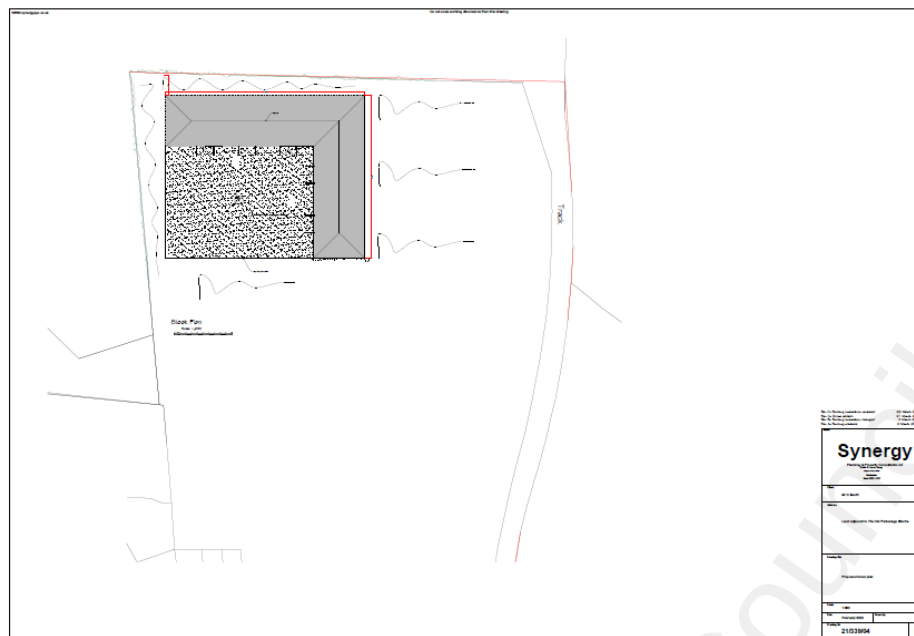


Figure 1. The block plan of the proposed development

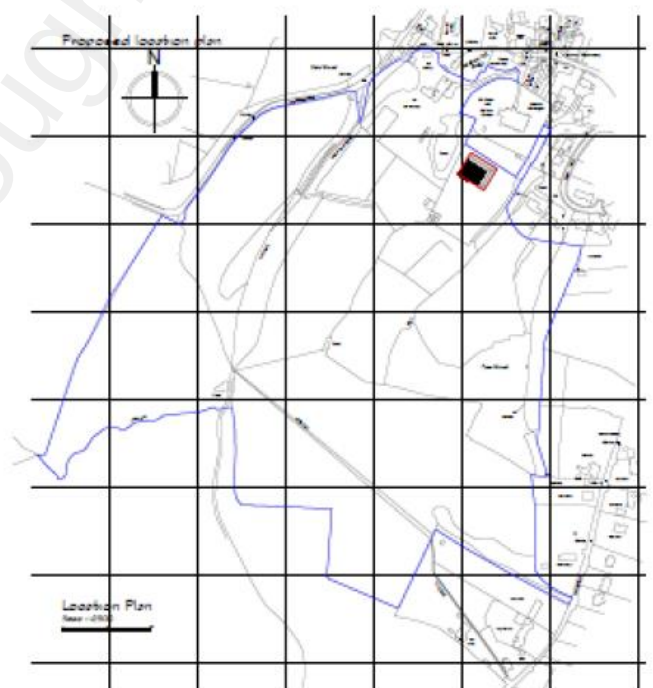
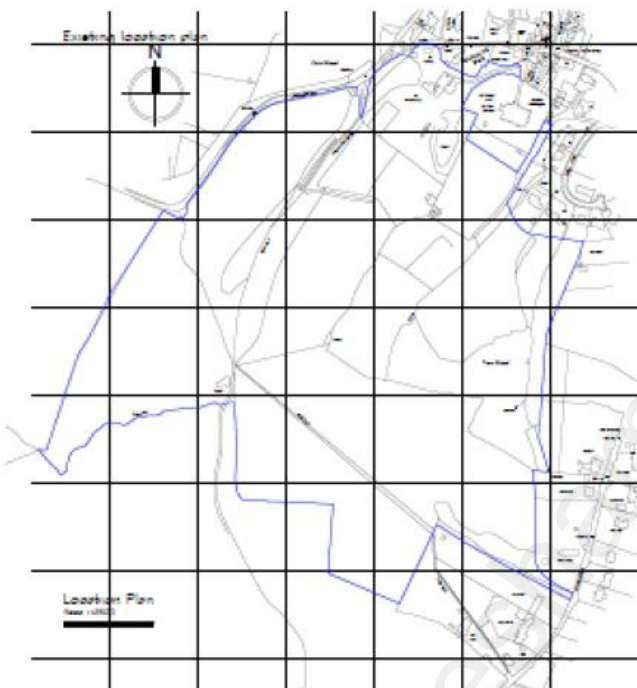


Figure 2. Site location

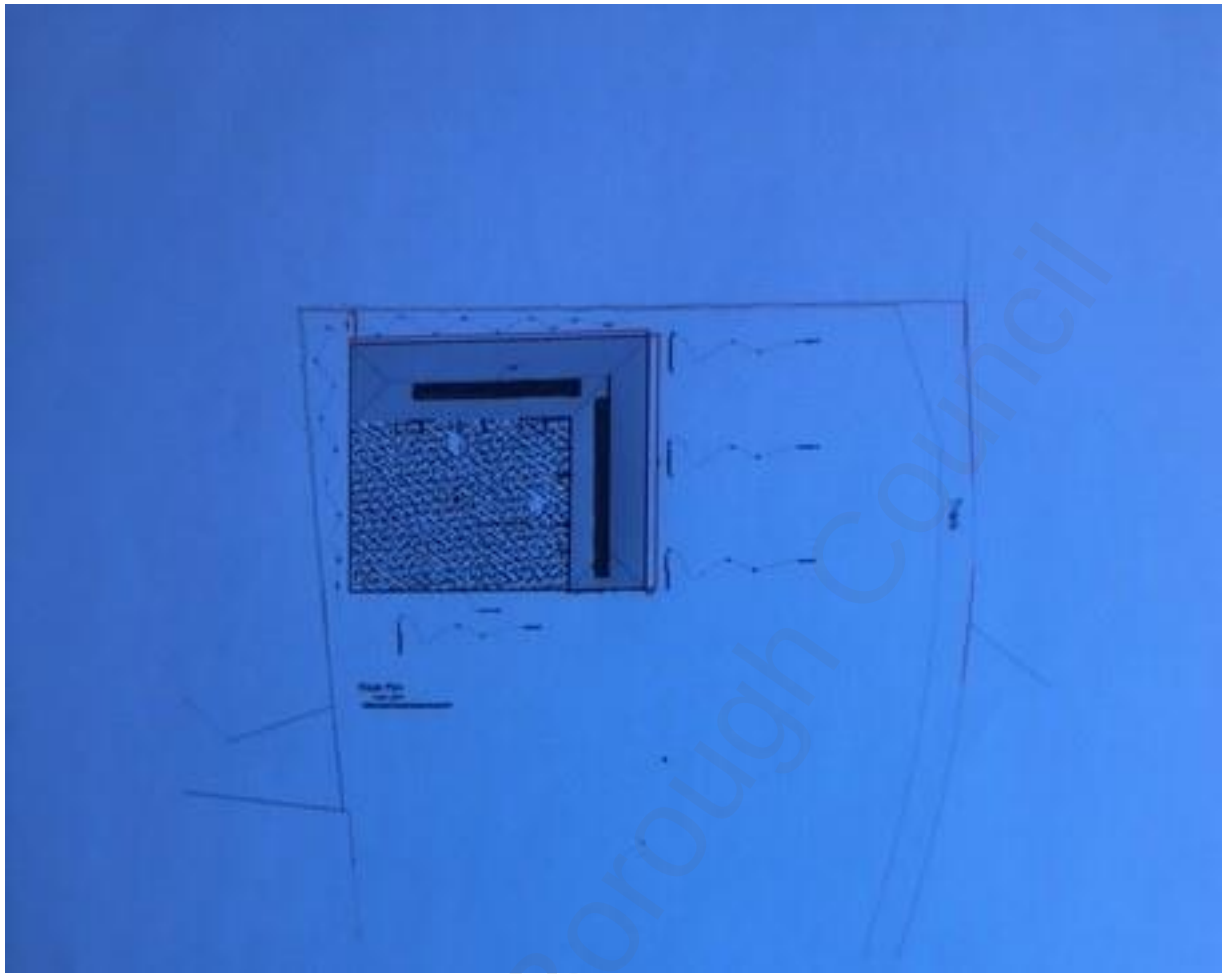


Figure 3. Proposed location of the evaluation trenches (each trench 20m x 1.8m)

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 HER Summary & Fieldwork Notification Form (copy attached). 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 HER Summary & 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 HER Summary & Fieldwork Notification Form (attached) 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 FoI 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 heat-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 Summary & Fieldwork Notification Form (see Appendix)
- 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*.