

DEVELOPMENT ARCHAEOLOGY SERVICES Ltd.

VERS 3

BRIEF AND SPECIFICATION FOR AN ARCHAEOLOGICAL EVALUATION AT LAKE LANE BARNHAM

[PLANNING REFERENCE: BN/23/16/OUT: 4 DWELLINGS] THIS DOCUMENT TRANSFERABLE TO NOVEMBER 2016 APPLICATION FOR 5 DWELLINGS ON THE SAME SITE].

PLANNING AUTHORITY: ARUN DISTRICT COUNCIL

SITE LOCATED AT APPROXIMATELY NGR: SU 9645 0469

1.0 Introduction.

Summary of main requirements comprising: preliminary reconnaissance, the consultation of research background cartographic and documentary sources held at the Chichester Library and the West Sussex Record Office, and of information held in the West Sussex County Council Sites and Monuments Record [Undertaken by DAS Ltd Hall & Pine 2015 as submitted with application] preliminary cable scan trace of proposed trial trench locations; the excavation [by machine] of up to 200m² of evaluation trenching comprising of : 5 X 25m X 1.60m wide trenches with trenches to be located at space site locations within the site areas to include access routes. All under the supervision of a suitably qualified and experienced archaeologist[s]; the excavation and recording of archaeological features and deposits by hand by suitably qualified archaeologist[s]; and the production of a report on the excavations, including an assessment of the findings. A contingency for an additional 80m² of trial trenching for additional investigations may be used (if required).

1.1 A planning application for the construction of a proposed new residential development [Original Planning reference: BN/23/16/OUT though transferred to current 2016 application] For illustrative proposed build layout refer to **Figure 2**.

1.2 The proposed development site is centred at approximately National Grid Reference SU 9645 0469. The assessment site lies at the northern fringes of the low lying Lower Sussex Coastal Plain at a height estimated at approximately +12mAOD. location see **Figure 1]**

1.3

- 1.3 After review of the previously submitted Desk Based Assessment and consideration of all key factors the following Condition [4] was applied to the permission:

4. No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Planning Authority.

Reason: The site is of archaeological significance in accordance with Arun District Local Plan Policy GEN7.

- 1.4 Consultations by Development Archaeology Services Ltd (DAS) on behalf of the applicant with Mr James Kenny, the Chichester District Archaeologist (the advisor on archaeological matters to the Local Planning Authority [ADC] have established that the above programme of archaeological work shall comprise an archaeological investigation of the proposed development site through purposive trenching.

This document or brief and specification constitute the aforementioned ‘written scheme of investigation’

- 1.6 The archaeological contractor [DAS] shall take full responsibility in ensuring that the archaeological work will be of a comparable standard, and will use a similar methodology, to previous archaeological work in the area. Sufficient contingences in terms of time and resources will also be made available to adequately elucidate initial findings. Allied to this, there will be further contingencies made available for all post excavation costs [including the artefactual and environmental material].
- 1.7 Prior to the commencement of the on-site works, DAS shall inform Arun District Councils archaeological consultees [Chichester District Council [Mr. James Kenny] of the proposed team undertaking such works, and will provide [if required] CVs of senior staff and specialists involved with the project. At all reasonable times a member of staff, responsible on DAS’ behalf for the conduct of the on-site work, shall be present.
- 1.8 Prior to commencement of archaeological works on the site, DAS shall have:
- 1.8.1 Consulted all relevant cartographic evidence in West Sussex Record Office and other relevant archives [Undertake by DAS Ltd see Hall & Pine 2014]
- 1.8.2 Obtained a provisional accession number from the designated recipient museum [Littlehampton Museum].
- 1.8.3 Obtained information derived from the Statutory Undertakers on services [gas, electricity, water, sewerage and telecommunications] on the site, and ascertained the

alignments of public rights of way. [Obtained from Seaward Properties Ltd [refer to separate RAMS for detail]

- 1.8.4 Shall have issued a copy of the approved 'Written Scheme of Investigation' to the Field Officer [C. A. Pine [MA BSC.] / Neville Hall BA MIFA] responsible for carrying out the work on site [to be kept on site at all times].
- 1.9 Prior to the excavation of the archaeological trial trenches, a scan will be undertaken using a CAT or other cable-tracer to locate any live services. If services are revealed and are suspected to be live, the area of the services shall be left unexcavated.
- 1.10 A programme of excavation of investigation trenches [as outlined in Section 4 below] will be undertaken using a mechanical excavator, followed by the manual investigation and recording of archaeological features.
- 1.11 Where appropriate, a programme of sampling of archaeological contexts will be carried out for subsequent analysis.
- 1.12 A full written report on the results of the archaeological investigation shall be completed within 30 working days of the completion of the on-site works. Copies of this report will be submitted to the Local Planning Authority, the clients, to the archaeological officers of Chichester District Council [Mr James Kenny as advisor to Arun District Council] and to the West Sussex County HER [Historic Environment Record] Record. This report will become available for public consultation after an appropriate period; and information from the report may be authorised to be used by West Sussex County Council, with due acknowledgement by the planning applicant and DAS.
- 1.13 This report is an essential piece of documentation for use by the Local Planning Authority, and therefore a reasonable basic minimum level of report [as outlined in Section 6 below] will be provided by DAS.
- 1.14 Works carried out by DAS both on site and in post excavation work shall conform to relevant IFA [Institute of Field Archaeologists] guidelines and to Appendix 2 of *The Management of Archaeological Projects* [English Heritage, 1991].

In addition, DAS Ltd will adhere to and be guided by Sussex Archaeological Standards [April 2015]

- 1.15 DAS will liaise with other archaeological field units who have carried out archaeological investigations in the vicinity of the proposed development site to ensure that the work undertaken is in accordance with previous studies in the area.

2.0 Topographical Background and archaeological background.

- 2.1 The development site lies to the west of the main Pagham road, and on the generally flat lower Sussex Coastal Plain, at a height of approximately +12.00 AOD, and is centred at approximately National Grid Reference SU 9645 0469 [See Figure 1]

- 2.4 The site lies on the mid West Sussex Lower Coastal Plain, an area that has provided archaeological evidence for all periods. Experience has shown that archaeological evaluation on similar sites where no archaeological finds have previously been made can often produce significant hitherto unknown remains.

Review of the previously produced Desk Based Assessment for the site [Hall & Pine 2015] suggests generally low to possibly moderate potential for all periods:

It is considered that at the study site the presence of archaeology of all ages should be considered as possible. Some disturbance from previous phases of landscaping may have compromised the archaeological resource.

3.0 Objectives of the Field Evaluation

- 3.1 To establish whether any archaeological remains exist in the area, which require to be recorded under the terms of any Condition likely to be imposed and in line with PPS policy HE 12.3.
- 3.2 The investigation should aim to determine, as far as reasonably possible, the location, form, extent, date character, condition, significance and quality of any surviving archaeological remains, irrespective of period, liable to be threatened by the proposed development. A representative sample of all areas where archaeological remains are potentially threatened should be studied, and attention given to sites and remains of all periods.
- 3.3 The archaeological investigation should also seek to clarify the nature and extent of existing disturbance and intrusions and hence assess the degree of archaeological survival of buried deposits and any surviving structures of archaeological significance.
- 3.4 Within these parameters, the investigation of this site presents an opportunity to address the following objectives:

- 3.4.1 To establish the palaeoenvironmental context of any activity/occupation;
- 3.4.2 Evaluate the likely impact of past land use;
- 3.4.3 Establish the presence or otherwise of masking colluvial/alluvial deposits and of waterlogged organic deposits; and
- 3.4.4 To mitigate the impact of development upon any buried archaeological features and deposits by sampling and recording.
- 3.5 Where physical preservation *in situ* is likely to be considered as a mitigation option, the primary factors affecting the present state of preservation and the direct and indirect effect of the proposed development should also be considered.

4.0 Investigation Methodology.

- 4.1 Up to 5 no. trial trenches [5X 25mX1.60m wide trenches] will be excavated. Trenches will be a uniform c. 25 metres in length and 1.60m wide. An evaluation area of c. 200m² will be excavated. [This area equates to c. 5.0 % of the total development area of the site [estimated at c. 4000m²] Trenches will be positioned at spaced site intervals [Figure 2] to allow a thorough sample of the site to be taken.

The trenches will be surveyed in and excavated under the supervision of a suitably qualified and/or experienced archaeologist(s). A contingency provision for an additional 80m² of trial trenching for additional investigations may be used (if required).

- 4.2 The initial excavation of the trial trenches shall be by a 360° tracked mechanical excavator of sufficient size and power, and fitted with a c.1.60-metre-wide toothless ditching bucket. The machine will excavate in less than 10cm spits. The spoil generated will be banked at a safe distance from the trenches' edge [spoil heaps will not exceed 1.2m in height].
- 4.3 The mechanical excavation will remove the modern over-burden, exposing any underlying archaeological/geological deposits, where present. Any archaeology revealed will be recorded in plan and manually excavated. This archaeological evaluation will not exceed a depth of 1.2 metres, given the small nature of the investigation.

- 4.4 All archaeological features, structures and deposits exposed in the trenches will be cleaned, planned and recorded [in a manner compatible with that most widely used elsewhere in the County]:
- 4.4.1 All archaeological contexts revealed through excavation will be planned in relation to the trench within which they lie and this trench will be planned onto a copy of an Ordnance Survey base map of not smaller than 1:1250 scale. All significant deposits will be formally planned at a scale of 1:20 with sections recorded at a scale of 1:10 [this will include all features half-sectioned]. All archaeological contexts will be surveyed using a temporary benchmark derived from an Ordnance Survey benchmark.
- 4.4.2 Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto prepared pro forma recording [context] sheets. Sample recording sheets, finds recording sheets, sample registers and a photographic register will also be used.
- 4.4.3 A photographic record will be made including both black and white prints and colour transparencies to illustrate in both detail and general context the principle features and finds discovered. Working shots to illustrate the nature of the archaeological investigation will also be included.
- 4.5 Archaeological excavation may require work by mattock, pick or shovel; these will only be used for the removal of homogenous deposits. These techniques will not be used to remove complex or sensitive archaeology.
- 4.6 A proportion of archaeological features, structures or deposits, will be excavated. The amount of archaeological context excavated will vary with type: at least 25% of each large discrete feature [e.g. a pit] will be excavated, and 50% of each small discrete feature [e.g. a posthole], with a minimum of 10% for each linear feature / deposit exposed in the trenches. The proportion of each archaeological feature excavated will be sufficient to obtain a representative picture of the feature's date and function.
- 4.7 Particular care will be taken not to damage any areas containing significant remains of potential national importance which may merit preservation *in situ*, even if obscuring underlying archaeological features. Such areas will be protected from the weather and other forms of deterioration. A sufficient sample of these areas will be investigated to assess their character and quality, without compromising the policy of preservation *in situ*.

- 4.8 Chichester District archaeological officer [Mr James Kenny] will be notified at the earliest opportunity of any archaeological contexts considered worthy of preservation *in situ*.
- 4.9 A random sampling strategy [to gather a statistically viable sample] will be used to sample all intrusive features excavated which are considered to be relatively undisturbed. In some instances, purposive sampling will also be implemented. The samples taken will ideally comprise a minimum of 10 litres, and these will be sieved using a flotation tank [screen sieving to 1mm and with a flot screen of 250µm]. The residues produced will be air-dried, sorted and assessed as part of the post-excavation phase.
- 4.10 Human remains: any remains revealed during the archaeological investigations will be covered and protected *in situ*, and reported to the relevant Coroner's Office, and Chichester District Council's archaeological officer [Mr James Kenny as advisor to ADC]. Where their removal is agreed by the appropriate authorities, the relevant Home Office and Environmental Health regulations will be followed.
- 4.11 Any finds believed to fall potentially within the statutory definition of Treasure, as defined by the Treasure Act [1996], shall be reported to the relevant Coroner's Office, to the Littlehampton Museum, the developer/site owner and Arun District Council's archaeological advisor [Mr. James Kenny] The report provided shall outline the date and circumstances of discovery, the identity of the finder and the location of the find.
- 4.12 The trenches, when unattended, shall be secured and clearly marked, in a manner commensurate with Health and Safety regulations. 'Deep Excavation' notices will be used if appropriate.
- 4.13 A Risk Assessment will be carried out prior to the archaeological investigation, and all relevant Health and Safety regulations will be complied with during its implementation. In particular, the mechanical excavator will be kept away from unsupported trench edges, safety helmets, footwear and 'high visibility' jackets will be used by all personnel where necessary.
- 4.14 DAS will also comply with the Construction [Design and Management] Regulations 1994 and with the Construction [Health, Safety & Welfare] Regulations 1996.
- 4.15 A metal detector will be used both on the spoil heap and in the trenches to facilitate investigation and a log kept of the results.

- 4.17 Upon the completion of the excavation, re-instatement, if required by the site owner, will be the responsibility of the site owner beyond the back-filling and bucket compressing of fills.
- 4.18 Access to the site will be at locations/routes confirmed by the site owner with particular consideration being given to the relevant Health and Safety requirements. Overnight, the site will be secured to discourage public/unauthorised access and lower the risk of damage to the archaeology.
- 4.19 DAS will reserve the right to limit access, at their sole discretion, to employees of DAS, designated representatives of the site owner, and the landowner's agents and assigns. All requests to access the site during investigation work must be through the senior site officer of DAS. All site visits will be logged.

5.0 Monitoring.

- 5.1 Mr. James Kenny [Chichester District Council archaeologist and advisor to Arun District Council] will be invited to visit the site whilst all elements of work are in progress and may wish to monitor the progress, standards, and results of the investigation on behalf of the Local Planning Authority. A minimum of five working days notice will be given prior to the start of the archaeological investigation detailed within this document.

6.0 Site Archive.

- 6.1 An archive of all records and finds is to be prepared consistent with the principle of 'Management of Archaeological Projects' [MAP] [English Heritage, 1991], particularly Appendix 3. However, the detail of the archive is to be fuller than that implied in MAP Appendix 4.2.1 The archive is to be sufficiently detailed to allow comprehension and further interpretation of the site should the project not proceed to detailed analysis and final report production. It must be adequate to perform the function of a final archive for lodgement in the County SMR or museum.
- 6.2 The minimum acceptable standard for the archival report is defined in the 'Management of Archaeological Projects' 5.4 and Appendix 3. It will include all materials recovered [or the comprehensive record of such materials] and all written, drawn and photographic records relating directly to the investigations undertaken. It will be quantified, ordered, indexed and internally consistent. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.

- 6.3 Work on the site archive will be completed within six months of the fieldwork and this will be available for inspection prior to deposition at Littlehampton Museum.
- 6.4 A basic level of conservation will be provided for finds liable to deterioration, and on deposition of these finds at the Littlehampton Museum, a full record of their treatment will be provided. Items for which available resources do not permit stabilisation will be separately packed and listed.
- 6.5 Finds will be appropriately conserved and stored [in accordance with UK Inst. Conservators Guidelines / RESCUE publication *First Aid for Finds* [1987]]; with all 'small finds' boxed together, separate from bulk samples.
- 6.6 All artefacts/ecofacts will be deposited at Littlehampton Museum with the landowner's permission, in accord with the terms of the Treasure Act 1996. The Littlehampton Museum will be consulted regarding the nature of the archive to be presented. Prior to this they will be securely stored by the contractor.
- 6.7 Prior to deposition of the site archive, Copyright [for the written, drawn and photographic record], will be retained by DAS. At deposition of the archive at Littlehampton Museum, written permission will be given for the reproduction of specific material for educational or academic purposes, with due acknowledgement to the Copyright holder [DAS].
- 6.8 Relevant OASIS [Online Access to Index of Archaeological Investigations] on line reporting form will be completed and submitted by the contractor

7.0 Timetable of work

- 7.1 It is anticipated that the archaeological works will commence shortly following the approval of this document by Arun District Council.
- 7.2 The post-excavation work will be undertaken immediately after the fieldwork component. A short summary report [outlining main results and recommendations] will be submitted to Mr. James Kenny, as advisor to the Local Planning Authority within three working days of completion of the field work. A final report will follow and this will be submitted within six weeks of the end of the fieldwork.

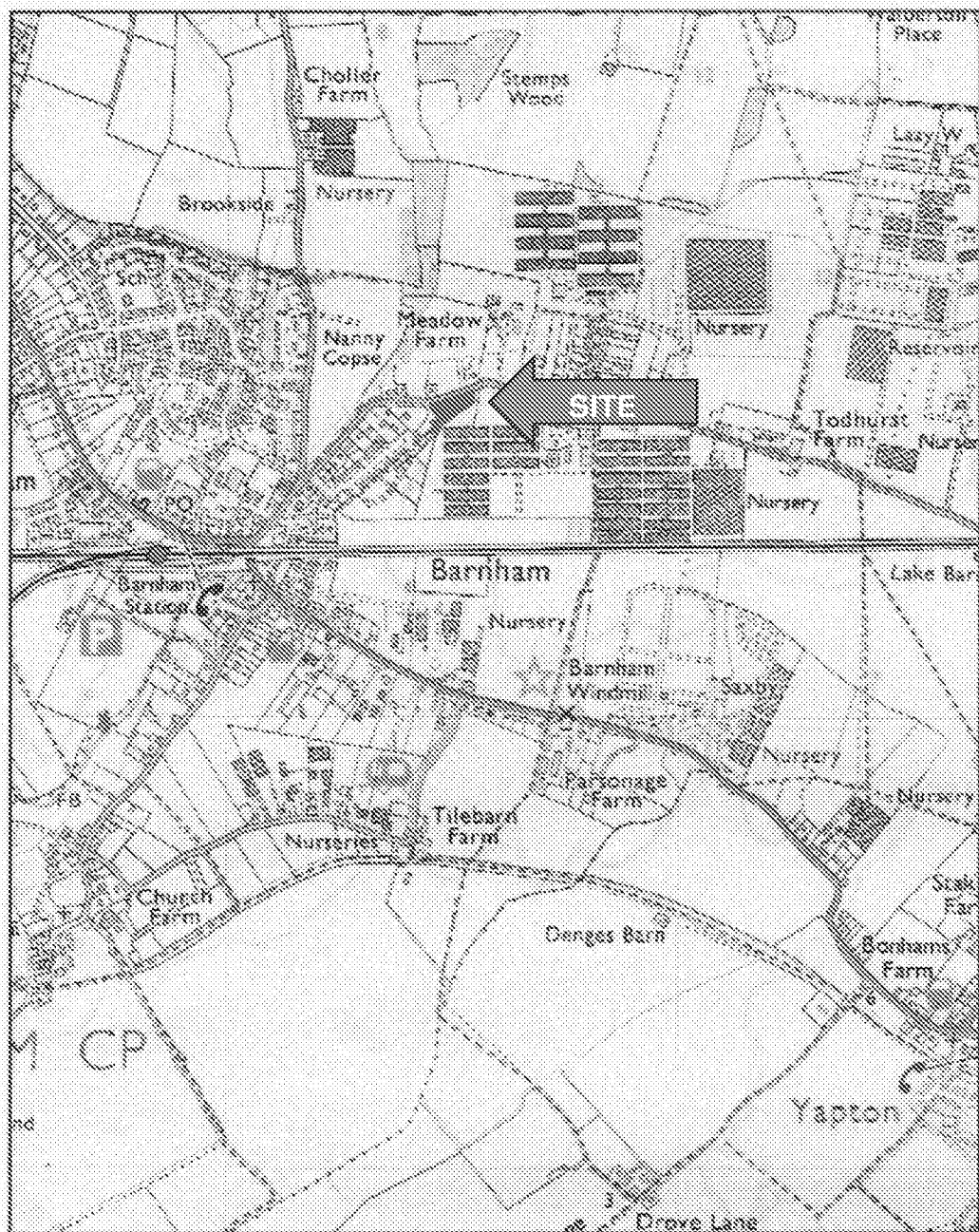


Figure 1: General site location at a scale of 1:25,000. The area of the proposed development site is shown in red. [O.S. copyright licence number 100048723]

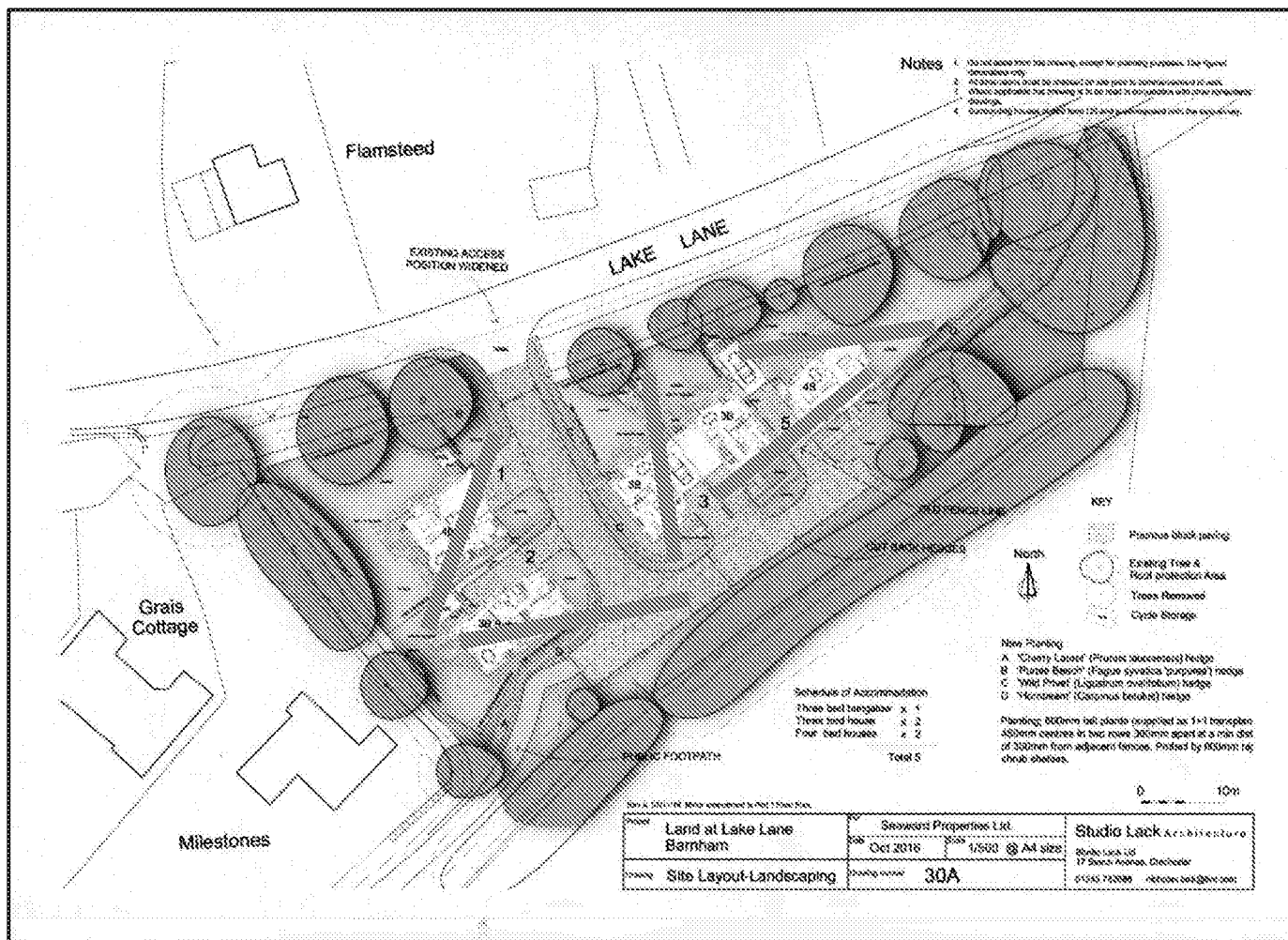


Figure 2: Indicative Trench locations within site area.

Site area c. 4000m²: Evaluation @ 5% = 200m² = 5X 25m X 1.60m wide trenches