WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL WORKS

In respect of

The Former NXP Works, Southampton

On behalf of

Canmoor Projects Ltd

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CgMs Ref: JG/14189

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1 INTRODUCTION

1.1 Project background and purpose of document

General

1.1.1 This Written Scheme of Investigation (WSI) has been prepared by William Bedford of CgMs Consulting on behalf of Canmoor Projects Ltd. It presents a Project Design for the archaeological works required to help determine the scope of works needed to discharge a planning condition attached to a consent to redevelop the Former NXP Works in Southampton. The study site comprises an 'L' shaped piece of land which is bounded to the west by Allington Road, to the north by carparking adjacent to Second Avenue, to the east by former office buildings and to the south by a boundary with an electricity sub station and a gas works (Fig. 1). The study site measures approximately 2.5ha in extent.

1.2 Archaeological and historical background

1.2.1 The site has been subject to previous archaeological investigations, comprising a desk based assessment (DBA)(CgMs 2012)

1.2.2 There are no designated heritage assets on the study site. There are two Scheduled Monuments (one of which is also Grade II* listed) relating to Redbridge's old bridges, located c750 - 810m to the northwest of the study site and eight Grade II listed buildings within the wider search area around the study site. The built-up nature of the land immediately surrounding the study site means that there will be no impact on the settings of these Scheduled Monuments or on the listed buildings.

1.2.3 A moderate potential for as yet to be discovered archaeological remains dating to the Prehistoric and Roman periods was identified for the study site, along with a low potential for all other periods.

1.2.4 During discussions with Stephen Appleby, the Southampton City Council (SCC) Archaeologist, it was agreed that a programme of archaeological trial trenching should be undertaken ahead of the construction of the development to determine the presence or absence of archaeological deposits and agree the scope / need for further mitigation works. This WSI outlines the scope and methodology of the trial trenching works.

1.3 Geology and topography

Geology

1.3.1 The study site is underlain by Eamley Sand Formation (sand, silt and clay). Superficial geology comprises Tidal Flat Deposits of clay and silt. There is also Made Ground shown across the whole of the study site (CgMs 2012). No reports on ground investigation were available at the time of writing.

Topography

1.3.2 The study site is low lying at approximately 5m Above Ordnance Datum. The study site is also level across its extent. The majority of the site is developed with only the eastern corner currently under grass.

2 SCOPE OF WORKS

2.1 Archaeological trial trenching

2.1.1 The scope of the trenching works will comprise the excavation of 17 trenches measuring 30m by 2m, which will be laid out within the study site as shown in figure 1.

2.1.2 It is understood that the extant buildings will have been removed prior to the commencement of the trial trenching investigation. The ground slab will be removed but the underlying footings and deposits will be left in situ until the necessary archaeological investigations have been completed.

2.2 Reporting

2.2.1 Upon completion of the fieldwork a report will be produced, which will present the findings of the trenching. Results will be presented in a clear and concise manner, with illustrations which allow the spatial interrelationship between features in different trenches to be quickly and easily understood.

3 RESEARCH FRAMEWORK

3.1.1 The aims of the project can be summarised as follows:

- To determine, as far as reasonably practicable, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains.
- To establish the ecofactual and environmental potential of archaeological deposits and features encountered.
- To determine suitable mitigation responses to identified remains.

3.1.2 Specifically, the investigation will also seek to determine whether any remains related to the Roman coin hoard or the identified theoretical Prehistoric potential in the wider study area are present within the study site.

4 METHOD STATEMENT

4.1 Introduction

4.1.1 This section outline the methodologies to be employed to implement the identified stages of work for the employment area, namely:

- Trial Trenching

4.1.2 There are also sections which detail other requirements, such as for reporting, logistical considerations and health and safety.

4.1.3 In order that the investigation supplies information of the required quality, the Codes, Standards and Guidance issued by the Institute for Archaeologists (IfA) form a requirement of this specification.

4.2 Trial Trenching

Fieldwork methodology

4.2.1 All trenches will be excavated using a standard toothless ditching bucket fitted to an appropriate hydraulic tracked or wheeled machine, such as a JCB or 360° Hymac. The machine used will be powerful enough for a clean job of work and able to mound spoil neatly, a safe distance from trench edges. Mini garden excavators or bulldozers are not suitable.

4.2.2 All machine work will be undertaken under the direct supervision of an appropriately experienced archaeologist, machining will cease immediately if significant evidence is revealed.

4.2.3 Machine excavation is to be taken down to the top of 'natural' or the top of any archaeological level, whichever is the higher. In the event of significant archaeological deposits being encountered CgMs Consulting and the SCC Archaeologist are 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.

4.2.4 If the machine has to re-enter the trench, care will be taken to ensure that it does not damage underlying remains, particularly in soft ground conditions. The machine will not be used to cut arbitrary trial trenches down to natural deposits, without regard to the archaeological stratification and leaving a section record only.

4.2.5 Archaeological excavation may require work by pick and shovel or occasionally further use of the machine. Such techniques are only appropriate for the removal of homogeneous or low-grade deposits which may give a "window" into underlying levels. They must not be used on complex stratigraphy and the deposits to be removed must have been properly recorded first.

4.2.6 Particular care should be taken not to damage any areas containing significant remains which might merit preservation in-situ. Such evidence would normally include deep or complex stratification, settlement evidence and structures. Such areas should be protected and not left open to the weather, or other forms of deterioration. Whilst investigation will not be at the expense of any structures, features or finds which might reasonably be considered to merit preservation, it is important that a sufficient sample is studied.

4.2.7 Stripped material will be visually examined for archaeological material and scanned with a metal detector.

4.2.8 Any finds of human remains must be left *in situ*, covered and protected. Removal can only take place under appropriate Ministry of Justice and environmental health regulations. In the event that such remains are exposed the site archaeologist shall inform CgMs Consulting, the developer, the local Environmental Health Officer and the local authority's Archaeological Advisor in order that appropriate measures can be taken for their recording and removal.

4.2.9 Those areas of the site where visual inspection suggests the presence of features or possible features will, if necessary, be hand-cleaned to ensure features are properly defined and sufficient to produce a base plan.

4.2.10 All discrete features will be cleaned sufficient to enable identification and recording.

4.2.11 Trench excavations must be maintained in a safe condition at all times. If necessary, trench sides should be stepped or battered.

4.2.12 Archaeological features should initially only be sampled sufficiently to characterise and date them. However, at least 50% (by plan area) of each post hole, 25% (by plan area) by each pit and a reasonable sample of each linear should be investigated. Care should be taken not to damage archaeological deposits through excessive use of mechanical excavation.

4.2.13 A Project Design issued by the appointed contractor will provide details of the sampling strategies for retrieving artefacts, biological remains (for Palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentaological analysis). Advice on the appropriateness of the proposed strategies will be sought from J. Corcoran, English Heritage Regional Advisor in Archaeological Science (South East). Archaeological field evaluations procedures are outlined in 'Working Papers of the Association for Environmental Archaeology, No 2: Environmental archaeology and archaeological evaluations (1995)', and should form the basis for the proposed strategies.

4.2.14 On completion of recording trenches are to be backfilled, with top and sub soils reinstated in their appropriate sequence.

Trial Trenching Recording Systems

4.2.15 The recording system used must be fully compatible with that used elsewhere in Southampton. Context sheets should include all relevant stratigraphic relationships and for complex stratigraphy a separate matrix diagram should be employed. This matrix should be fully checked during the course of the investigation.

4.2.16 The site archive will be so organised as to be compatible with other archaeological archives produced in Southampton. Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto prepared pro-forma recording sheets. Sample recording sheets, sample registers, finds recording sheets, access catalogues, and photo record cards will also be used. This requirement for archival compatibility extends to the use of computerised database.

4.2.17 The site grid is to be accurately tied into the National Grid, preferably by EDM or theodolite, and located on to the 1:2500 map of the area.

4.2.18 Plans indicating the location of the excavated trenches and the location of all archaeological features encountered are to be drawn at an appropriate scale.

4.2.19 All trench positions are to be accurately tied in to the site and national grid.

4.2.20 All structures, deposits and finds are to be recorded according to accepted professional standards.

4.2.21 Plans of archaeological features on the site should be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 depending on the complexity of the feature.

4.2.22 All archaeological plans and sections should be on drawing film and should include context numbers and OD spot heights for all principal strata and features.

4.2.23 Other plans will include a site location plan, a general plan (e.g. OS 1:1250) showing investigation area and development site in relation to surrounding locality and street pattern. These will be supplemented by trench plans at 1:500 (or 1:200), which will show the location of the areas investigated in relationship to the investigation area, OS grid and site grid (if any). The locations of the OS bench marks used and site TBMs will also be identified.

4.2.24 A photographic record of the project is required. This will include black and white prints and colour transparencies (on 35mm film), illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include working shots to illustrate more generally the nature of the archaeological

operation mounted. The transparencies will be mounted in suitable frames. Digital images are also acceptable.

4.3 Health and safety considerations

General

4.3.1 A risk assessment should be prepared and a copy should be sent to CgMs Consulting prior to commencement of the contract. All relevant health and safety regulations must be followed including, but not exclusively:

- The Health and Safety at Work Act (1974),
- Management of Health and Safety at Work Regulations (1999),
- Manual Handling Operations Regulations 1992 (as amended in 2002),
- The Construction (Design and Management) Regulations (2007), and
- The Reporting of Injuries, Diseases and Dangerous occurrences Regulations (1995).

4.3.2 Where a site is operating under The Construction (Design and Management) Regulations (2007), all works will be implemented in accordance with a Construction Phase Plan prepared by the Principal Contractor.

4.4 Provisional Programme

4.4.1 The precise timetable for the works is yet to be determined. It is anticipated that the fieldwork would be completed within a 2 to 3 week programme on site. A report would then be completed with 3 to 4 weeks of completion of the fieldwork, provided all specialist reports can be produced in time. It is recognised that the above programme may be affected by the presence of archaeological remains – should these be encountered, adequate capacity has been made within the main construction programme to accommodate any required works.

4.5 Monitoring

4.5.1 The Archaeological Officer for SCC will be notified at least five working days prior to commencement of work on site of the start date and supervisor/project manager's name.

4.5.2 Reasonable access to the site is to be arranged for representatives of the local authority and the Archaeological Officer for SCC, who may wish to make site inspections to ensure that the archaeological investigation is progressing satisfactorily.

4.5.3 Arrangements for meetings will be made through CgMs Consulting.

4.6 Finds and Samples

4.6.1 A high priority will be given to dating any remains and so all artefacts and finds are to be retained. Consideration should also be given for the use of radiocarbon dating of deposits if suitable deposits are exposed and artefactual dating provides too broad an age range.

4.6.2 Assessments of artefacts should be made by appropriately qualified named specialists. Pottery reports should refer to the appropriate type series.

4.6.3 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained. No finds will, however, be discarded without the prior approval of the Archaeological Officer for SCC.

4.6.4 All finds and samples will be treated in a proper manner and to the standards of the UK Institute of Conservators Guidelines. They will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the UK Institute for Conservation "Conservation Guideline No 2". Appropriate guidelines set out in the Museums and Galleries Commissions "Standards in the Museum Care of Archaeological Collections (1991)" will also be followed.

4.6.5 On completion of the project, it is anticipated that the landowner will consent the deposition of artefacts in a suitable repository agreed with the Archaeological Officer for SCC.

4.7 Reports and Archives

4.7.1 All post-excavation procedures, archiving and report production (including publication as appropriate) will be in accordance with IfA Standards and Guidance and the Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006.

4.7.2 Details of style and format are to be determined by the archaeological contractor. In any event it should include:

i. a summary of the project's background;

ii. the site location;

iii. a methodology;

iv. a description of the project's results;

v. an interpretation of the results in the appropriate context;

vi. a summary of the contents of the project archive and its location (including summary catalogues of finds and samples);

vii. site layout plans on an OS base, with the location of the remediation areas;

viii. plans of each area of intervention in which archaeological features were recognised;

ix. sections and feature sections (with OD heights);

x. representative site photos;

xi. site matrices where appropriate;

xii. a consideration of evidence within its wider context;

xiii. copies of any particularly informative historic plans relevant to the sites interpretation;

xiv. a summary table and descriptive text showing the features, classes and numbers of artefacts located, and soil profiles, with interpretation;

xv. an assessment of the methodology employed and the results obtained (i.e. a confidence rating).

4.7.3 Should significant remains be encountered consideration will be given to a staged post excavation programme, comprising an assessment followed by formal publication. The scope and detail of this will be determined by the nature of the remains encountered and in discussion with the Archaeological Officer for SCC.

4.7.4 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) and Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006. On completion of the project the archive is to be deposited in the appropriate repository to be agreed with Archaeological Officer for SCC.

4.7.5 In addition, at the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/projects/oasis/ must be initiated and key fields completed on Details, Location and Creators Forms. All appropriate parts of the OASIS online form must be completed for submission to the County HER. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

5 OTHER MATTERS

5.1 Contractor

5.1.1 The appointed contractor is yet to be determined, but will be an IfA Registered Organisation with experience of working on similar sites in Southampton.

5.1.2 The field team deployed by the contractor will include only full time professional archaeological staff. All staff in supervisory positions should be members of the IfA at the appropriate level.

5.1.3 The composition of the project team must be detailed and agreed in advance with CgMs Consulting (this is to include any subcontractors).

5.2 Communication

5.2.1 All queries and communication are to be directed through CgMs Consulting. No comment is to be made about this Specification or project to the media or other parties.

5.3 Copyright

5.3.1 It is recognised that the copyright of written, graphic and photographic records and the report rests with the originating body. However, CgMs Consulting and their client require an agreement to facilitate the copying and use of any or all materials resulting from this project.

5.4 Codes of Practice

5.4.1 The following statutory provisions and codes of practice are to be adhered to where relevant:

- All statutory provisions and by-laws relating to the work in question, especially the Health and Safety at Work Act 1974;
- The Institute for Archaeologists Code of Conduct;
- The Institute for Archaeologists Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.

5.4.2 Any finds believed by the archaeological contractor to fall within the statutory definition of Treasure shall be advised immediately to CgMs Consulting and notified to the relevant Coroner's Office.

5.5 Variations

5.5.1 Variations to the Specification or Project Design that the contractor may wish to make must be approved, in advance, by CgMs Consulting and the Archaeological Officer for SCC.

6 REFERENCES

CgMs	2012	Archaeological Desk Based Assessment – Former NXP Works, Second Avenue, Southampton
English Heritage	1991	The Management of Archaeological Projects (2nd ed.)
English Heritage	2006	The Management of Projects in the Historic Environment
Martin, G et al	2003	Domesday Book – A Complete Translation