

Written Scheme of Investigation For Below Ground Site Investigation

At:

Former St Johns Ambulance Site,
Armoury Drive,
Gravesend,
Kent DA12 1CT

For:

Longley Group LLP,
Unit 4 Brook Court,
Blakeney Road,
Beckenham,
Kent BR3 1HG

Private and Confidential

Ref:

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Sevenoaks
Environmental
Consultancy Ltd

**Armoury Drive, Gravesend: method statement for
watching brief on geotechnical/geoenvironmental augering**

Simon Pratt, February 2022
Canterbury Archaeological Trust

Abstract

This document addresses site-specific issues for an archaeological watching brief on the sinking of five windowlessly-sampled boreholes, each to a depth of 5m, sunk for geotechnical/geoenvironmental sampling, at the former St John's Ambulance Brigade Head Quarters, Armoury Drive, Gravesend, Gravesham, Kent DA12 1NB (NGR 565110 173560; Planning Application 20200561). The site may also be referred to by its proposed new entrance, off Albert Murray Close. This document should be read in conjunction with the relevant generic method statement. The monitoring and recording will be undertaken by a suitably qualified and experienced archaeologist.

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1 General

1.1 Introduction

This document, in conjunction with another (1.2), provides a written scheme of investigation (WSI) for an archaeological watching brief on geotechnical/geoenvironmental augering at the former St John's Ambulance Brigade Head Quarters, Armoury Drive, Gravesend, Gravesham, Kent DA12 1NB (NGR 565110 173560). The site may also be referred to by its proposed new entrance, off Albert Murray Close. Planning Permission (ref 20200561), with conditions, was granted by Gravesham Borough Council on 23 December 2020. Condition 17 called for a programme of building recording and Condition 18 for one of archaeological work (both to be the subject of separate WSIs). However, given the risk of various forms of contamination on the site, a geotechnical/geoenvironmental site investigation will first be conducted and its results, and those of the archaeological watching brief upon it, will inform the design of subsequent archaeological work, including building recording.

1.2 Scope

This document addresses site-specific issues only and should be read in conjunction with the accompanying document, Canterbury Archaeological Trust's (CAT) *Generic archaeological method statement for augering*. In cases of conflict, this document supersedes the generic document, where the current document has lacunae, the generic one will usually take precedence.

1.3 Geology

Digital terrain modelling shows the site is on the northern flank of an island of higher ground on the southern margin of the Thames floodplain. The British Geological Survey (BGS on-line) shows Palaeogene Thanet Formation here overlain about 200m to the east by Quaternary Head clay, silt, sand and gravel and about 200m to the south-west by Palaeogene Lambeth Group sand, silt and clay, the latter capped by a smaller pocket of Palaeogene Harwich Formation gravel and sand about 250m from the site. However, BGS mapping is dependent upon (generally) sparsely distributed data points and Quaternary deposits of Palaeolithic and/or palaeoenvironmental potential might well extend onto the site.

1.4 Heritage assets

An archaeological desk-based assessment (AOC 2020) and heritage statement (anon 2020) were prepared for the planning application. The former concluded there was only a low potential for prehistoric, Romano-British, Anglo-Saxon or medieval remains to be encountered on the site (AOC 2020, 5.1–5.2). Eighteenth- and nineteenth-century maps show that the site was formerly agricultural land and remained undeveloped until becoming part of the 1860s–1960s Gravesend (Milton) Barracks, a non-designated heritage asset entered on the Kent Historic Environment Record (KHER on-line, TQ67SE211). The standing remains comprise a partially rebuilt enclosure wall and two small brick buildings, one with a cast iron water tank above. There is the potential for other military remains to survive below ground.

2 Issues

2.1 *Specific procedures*

The main contractor will be Sevenoaks Environmental Consultancy (SEC), who are also CAT's Client for this stage of work. It is intended to sink 5 windowlessly-sampled boreholes, of up to 100mm nominal diameter and 5m deep, using a tracked continuous drive ('Terrier-type') sampler. The positions of the boreholes will be determined by SEC's on-site engineer and plotted in. Each borehole will have a hand-dug starter pit about 1m deep. Most of these will be cut in grassed areas, though one may cut through the concrete(?) floor of a standing building. Archaeological monitoring, logging and, if appropriate, subsampling, will be conducted at each position from ground level to the base of the borehole or until it is certainly in Palaeogene deposits, whichever is the shallower, and by a suitably qualified and experienced archaeologist. The attending archaeologist may briefly halt cutting of starter pits to deal with certain or suspected archaeology. If significant archaeological remains are identified that merit preservation and/or fuller investigation, the archaeologist may halt work at a given position entirely, suggesting an alternative one. Backfilling (and re-instatement, if required) to be the responsibility of the main contractor. Recording will be to standard CAT guidelines for augering (see 2.38). A verbal or emailed preliminary report will be made to the Client and to the LPA's archaeological advisor shortly after completion of fieldwork, a preliminary or final (see 2.39) synthesised report within three weeks of that completion.

2.2 *Health and safety monitoring*

Main contractor's site rules to be followed. CAT's Health and Safety Manager, Dr Richard Helm may advise and/or visit.

2.3 *Inductions*

Main contractor's site rules to be followed.

2.4 *Signing in and out*

Main contractor's site rules to be followed.

2.5 *Names and qualifications of anticipated personnel*

Fieldwork and reporting

Project Officer

Simon Pratt MA(Cantab)

CAT

Management and support

Operations Manager	Jon Rady MIFA	CAT
Palaeoenvironmentalist	Enid Allison BSc(Hons) DPhil	CAT
Health and Safety Manager	Richard Helm HND BA(Hons) PhD	CAT

2.6 CSC certification

Project Officer	Simon Pratt	CSCS 02619196
Operations Manager	Jon Rady	CSCS 02619202
Palaeoenvironmentalist	Enid Allison	CSCS 02619077
Health and Safety Manager	Richard Helm	CSCS 02619150

2.7 First-aiders

To be arranged by main contractor.

2.8 Fire extinguishers

To be arranged by main contractor.

2.9 Fire drill, emergency procedures and assembly points

Main contractor's site rules to be followed.

2.10 Unexploded ordnance

Assessment and any monitoring required to be arranged by main contractor.

2.11 Asbestos, guano etc

Some guano expected from previously nesting birds, asbestos possible. Standard hygiene precautions. Main contractor's site rules to be followed. Geoenvironmental engineer present and directing overall work.

2.12 Deep water

None expected.

2.13 Weill's disease

Site welfare facilities to be provided by main contractor.

2.14 Accident book and accident reporting

To be maintained by main contractor and by CAT.

2.15 Additional PPE

Disposable gloves and face-masks to be available (see 2.40). No other special requirements beyond standard (steel toecaps, hard hats, hi-vis, ear defenders, safety glasses/goggles).

2.16 Contact numbers

Simon Pratt	01227 825271	07968 573400
Enid Allison	01227 825273	
Jon Rady	01227 825269	07968 572405
Richard Helm	01227 825268	07968 573406
CAT Main Office	01227 825250	01227 462062
SEC Main Office	01892 822999	

2.17 Environmental protection

No vulnerable receptors nearby. Main contractor's site rules to be followed.

2.18 Protected species

Preliminary ecological survey and bat survey undertaken. No protected species expected. No residential birds expected as the fieldwork will be undertaken outside of nesting season (March–August), by which time the fieldwork will have been completed. Main contractor's site rules to be followed.

2.19 Public health

No risk to public health expected. Working areas to be fenced off.

2.20 Public nuisance (dust, noise etc)

The site adjoins the gardens of various houses, one side road and a wide verge along another such road, from all of which it is separated by high fencing or walling, with some trees. No dust expected. Some unavoidable noise from auger rig will arise, possibly with breaking-out of a floor within a standing building, though noise will be mitigated by the intervening boundaries. Any public complaints to be directed to main contractor's nominee.

2.21 Hot-work permits

No hot-works required for archaeological work.

2.22 Site access and parking for the vehicle carrying the sampling rig

Main contractor's site rules to be followed for geotechnical rig. No rigs required for archaeological work.

2.23 Site access and parking for other personnel

Main contractor's site rules to be followed.

2.24 Working area access for staff and the sampling rig

Fenced areas to be opened for access. If tracking is laid to protect the ground surface, this will be used.

2.25 Site security

Single day duration, no overnight storage of equipment. Any other security to be arranged by main contractor.

2.26 Site fencing and signage

To be arranged by main contractor.

2.27 Working area fencing and signage

To be arranged by main contractor.

2.28 Timetable and interaction with other works

Timetable to be arranged by main contractor, archaeological work to be scheduled accordingly. All fieldwork currently estimated as lasting 1 day.

2.29 Spoil stockpiling

Any spoil to be stockpiled in accordance with main contractor's provisions.

2.30 Spoil disposal

To be arranged by main contractor. No additional spoil generated by archaeological work.

2.31 Other waste disposal

To be arranged by main contractor.

2.32 Latrines, canteen and drying room

To be arranged by main contractor if required. Single day operation.

2.33 Office or workshop space

No site office required.

2.34 Requirements for breaking out and/or starter pits

The concrete(?) floor in one building will be broken through for one borehole. No other breaking out or coring required. For safety, small starter pits, c 1m deep, will be hand-dug at each position.

2.35 Selection of borehole positions, including alternatives

See geotechnical documentation for general positions, precise positions to be determined on site and then surveyed in.

2.36 Target depths for boreholes

Target depth for all boreholes is 5m below ground level.

2.37 Possibility of integrating archaeological logging with geotechnical analyses

If windowless samples are to be extruded or opened off-site, their archaeological monitoring will be considered.

2.38 Recording

A unique site code (SJAAD 22) will be employed. Unique position references and uniserial context numbers will be assigned in accordance with standard CAT practice as defined in the generic documentation. An unambiguous positional photograph will be taken of each borehole position, preferably in the same sequence as they are logged. Logging will be undertaken in accordance with the procedures detailed in the generic documentation. Positions will be plotted on an existing topographic survey, from which ground levels will be estimated. Finds processing requirements for boreholes are usually minimal but any material recovered will either be spot-dated at this stage or included with material from subsequent fieldwork.

2.39 Reporting

A verbal or e-mailed report on the general results of the logging will be made to the Client and to the LPA's archaeological advisor (in this case, the Heritage Conservation Group of Kent County Council) as soon as possible after its conclusion. The logs will be transcribed into a digital database and used to generate individual written logs and numbered sections of each borehole, arranged along one or more transect lines upon which interpretative functional groups and/or phasing will be identified, albeit tentatively, along with other appropriate information and interpretation. Requirements for processing and analysis of palaeoenvironmental or other subsamples will be assessed when transcription and drawing operations are completed. Although all subsample analyses may not then be completed, an initial synthesized description, graphical representations and overall analysis of the borehole data will be prepared and disseminated by CAT within three weeks of the completion of fieldwork. At a minimum, all transcribed logs will be made available in human-readable form as well as in digital forms capable of ready importation to any 'flat' database and to the auger log system employed by Museum of London Archaeology.

2.40 Risks not covered in the generic documents or with increased severity or probability

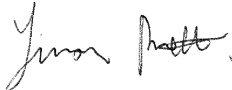
Risk of spreading/contracting covid 19: mitigated through more frequent hand-washing, social distancing, disinfecting of communal surfaces and wearing face-masks and/or disposable gloves where appropriate.

Slightly elevated risk from guano and other contamination: mitigated by more frequent hand-washing, wearing face-masks and/or disposable gloves where appropriate, and continual monitoring by geoenvironmental engineer.

3 Signatures and declaration

3.1 Signatures

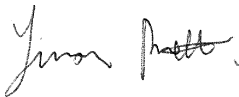
This document and the generic method statement referred to have been read by:

Simon Pratt  3/02/2022

Jon Rady  3/02/2022

3.2 Declaration

I declare that the above method statement and risk assessment cover all anticipated site-specific working procedures and hazards that it can reasonably be expected to encounter in the course of the intended types of work beyond those covered by the generic documents referred to.



Simon Pratt MA(Cantab)
Project Officer
Canterbury Archaeological Trust Ltd
92A Broad Street
Canterbury
Kent CT1 2LU
01 February 2022

References

- Anon 2020, 'Heritage Statement – Site: land at Albert Murray Close, Gravesend, Kent DA12 1NB', unpublished [Gravesend Borough Council?] report (https://docs.gravesend.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=6A20B770B15311EA9D2FE226BB3BE258).
- AOC 2020, 'Land at Albert Murray Close, Gravesend, Kent: archaeological desk-based assessment', unpublished AOC Archaeology Group Client Report 25283.
- BGS on-line, *Geology of Britain Viewer*, British Geological Survey (<https://www.bgs.ac.uk/map-viewers/geology-of-britain-viewer/>).
- KHER on-line, *Kent Historic Environment Record*, Kent County Council (<https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/Default.aspx>).

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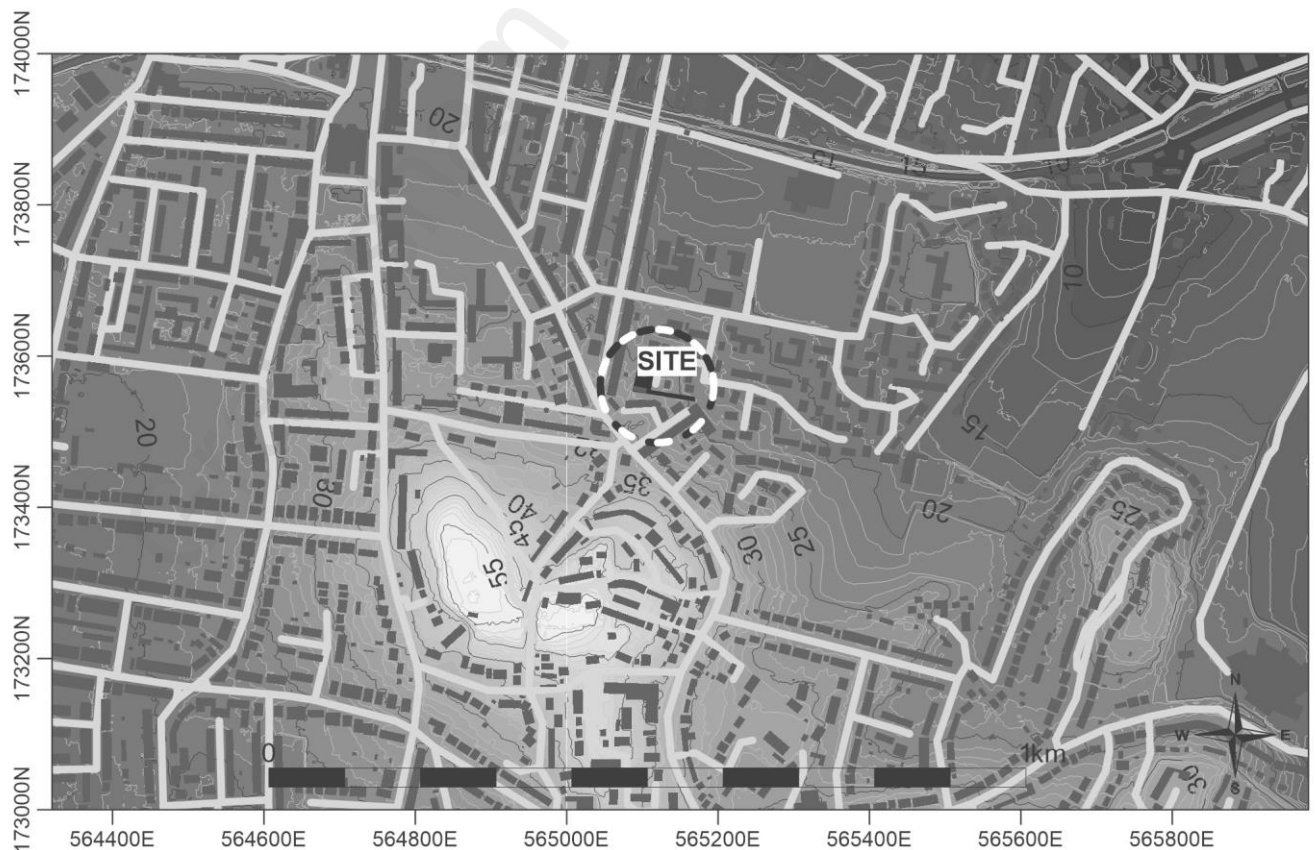
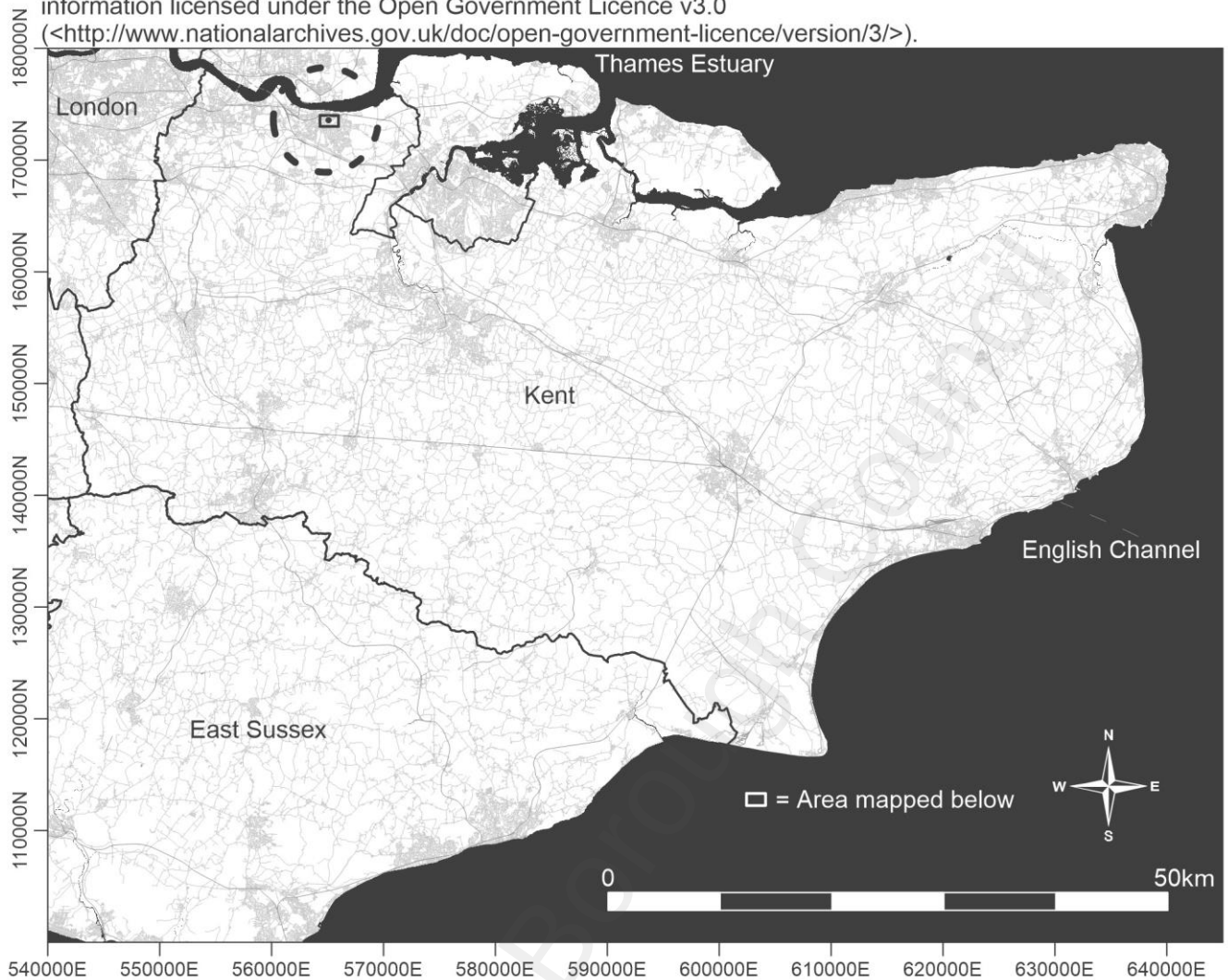


Fig 1 Location maps (1:625,000 and 1:10,000).



Do not scale. All dimensions are in millimetres unless otherwise stated. This drawing should be read in conjunction with all relevant project information and contract documentation. All dimensions to be checked prior to fabrication and/or commencement of works. All works to comply with all relevant building codes, building regulations and best practice. All dimensions are approximate and may vary slightly due to manufacturing tolerances. All dimensions are to be checked prior to fabrication and/or commencement of works. All works to comply with all relevant building codes, building regulations and best practice. All dimensions are approximate and may vary slightly due to manufacturing tolerances.

[illegible]

Project Name: 13-534 Albert Murray Louise

Jobbing Name:
Existing size Plan

If Wiring Number:
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Project No:	18A-334	Drawn by:	ML5	Scale:	1:250 @ A3
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