

Written Scheme of Investigation (WSI) for an archaeological investigation by trial-trenching and excavation at The Sweyne Park School, Sir Walter Raleigh Drive, Rayleigh, Essex, SS6 9BZ.

NGR: TQ 80155 91685 (centre)

Planning reference: 20/00897/CM

District: Rochford

Parish: Rayleigh

Commissioned by: Matthew Mackenzie (Morgan Sindall)

On behalf of: Morgan Sindall

Curating museum: Southend

Museum accession code: SOUMS: tbc

ECC project code: tbc

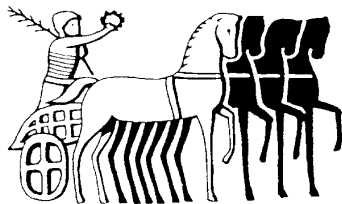
CAT project code: 2021/02b

Oasis IV project ID: colchest3-415303

Site manager: Chris Lister

ECC monitor: Alison Bennett

This WSI written: 15.02.2021



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Site location and description

The proposed development site is located at The Sweyne Park Secondary School, Sir Walter Raleigh Drive, Rayleigh, Essex. The school is located c 1.18km from the main centre of Rayleigh and centred at National grid reference (NGR) TQ 80155 91685.

Proposed work

The current application proposes the construction of a new school block which will provide six additional classrooms, toilets, office, storeroom, relocate a container, open linked canopy and groundworks will include the provision of a new substation. A covered link will connect the new block to the existing school buildings.

Archaeological background (Fig 2)

The following archaeological includes extracts of the ECC brief and the Essex Historic Environment Records (EHER) held at Essex County Council, County Hall, Chelmsford, Essex (accessed via <http://www.heritagegateway.org.uk>).

The Historic Environment Record shows the presence of multi-period occupation in the vicinity of the school site.

Approximately 711m northwest of the site at the former Park School, Rawreth Lane, investigations have shown the presence of a Saxon burial ground with over 146 cremations and a small number of inhumations recorded (EHER 45134). Features discovered also include a series of pits, gullies and ditches thought to be associated to the burials. Artefacts recovered from the burials included pottery, metalwork and glass beads which were dated to approximately 525-600AD. Underlying the Saxon cemetery was a scatter of prehistoric pits and post-holes dating from the early to Middle Iron Age (Ennis, 2005; EAA 127).

Approximately 440m southeast of the site lies location of the former church and chapel of St Mary. Masonry and encaustic tiles date the church and chapel as medieval and indicate the presence of medieval occupation nearby (EHER 13502).

The Domesday Book demonstrates that there was a village at Rayleigh at the end of the Saxon period. The Swein of Essex built his castle there at some point between 1066 and 1086, making it one of the earliest Norman castles in the country (Rumble, 1983, EHER 13586-7). During the medieval period Rayleigh flourished into a town (EHER 13575). The town appears to have remained as a small market town with a small but stable population until the beginning of the 20th century when the introduction of the railway led to its growth as a commuter town for London.

Further detailed information on Rayleigh can be gained from the Historic Towns Report (Medlycott 1999).

Planning background

A planning application was submitted to Essex County Council in September 2020 (20/00897/CM) proposing an *extension to school to provide six additional classrooms, toilets, an office, plant and a storeroom to increase the school by one form entry (150 pupils), relocation of container, open linked canopy and the provision of a substation with associated works*. A full archaeological condition was recommended to Rochford District Council.

The full archaeological condition recommended follows the guidelines given in National Planning Policy Framework (MHCLG 2019) and states:

L1 Archaeological Assessment

No development or preliminary groundworks of any kind shall take place until a programme of archaeological investigation has been secured in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the local planning authority.

L2 Implementation of Archaeological Fieldwork Programme

No development or preliminary groundworks of any kind shall take place until the completion of the programme of archaeological investigation identified in the WSI defined in 1 above.

Requirement for work (Fig 1)

The required archaeological work is for an investigation by trial-trenching and excavation. Details are given in a Project Brief written by ECC Place Services (*Brief for Archaeological Investigation at Sweyne Park School, Sir Walter Raleigh Drive, Rayleigh – ECC 2021*).

Specifically, one archaeological trial-trench will be excavated across the length of the proposed new buildings each measuring 38m long by 1.8m wide, covering an area of 68.4m².

The archaeological work aims to record the location, extent, date and character of any surviving archaeological remains within the area of the proposed development, and assess the potential for further archaeological remains.

Aims of the archaeological evaluation is to target:

- Saxon occupation
- Evidence of medieval or post-medieval occupation, it's nature and extent

This initial trial-trenching evaluation will be followed by a summary report. If significant archaeological deposits are identified, the ECCHEA may decide that further archaeological work is required, potentially comprising open area excavation of those deposits.

General methodology

All work carried out by CAT will be in accordance with:

- professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (ClfA 2014a, b)
- Standards and Frameworks published by East Anglian Archaeology (Gurney 2003, Medlycott 2011)
- relevant Health & Safety guidelines and requirements (CAT 2020)
- the Project Brief issued by ECC Historic Environment Advisor (ECC 2021)

Professional CAT field archaeologists will undertake all specified archaeological work, for which they will be suitably experienced and qualified.

Notification of the supervisor/project manager's name and the start date for the project will be provided to ECCHEA one week before start of work.

Unless it is the responsibility of other site contractors, CAT will study mains service locations and avoid damage to these.

At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. At the end of the project all parts of the OASIS online form will be completed for submission to EHER. This will include an uploaded .PDF version of the entire report.

A project or site code will be sought from ECCHEA and/or the curating museum, as appropriate to the project. This code will be used to identify the project archive when it is deposited at the curating museum.

Staffing

The number of field staff for this evaluation is estimated as follows: One supervisor plus two archaeologists for two days.

In charge of day-to-day site work: Mark Baister/Nigel Rayner.

Evaluation methodology

Where appropriate, modern overburden and any topsoil stripping/levelling will be performed using a mechanical excavator equipped with a toothless ditching bucket under the supervision and to the satisfaction of a professional archaeologist. If no archaeologically significant deposits are exposed, machine excavation will continue until natural subsoil is reached.

Where necessary, areas will be cleaned by hand to ensure the visibility of archaeological deposits.

If archaeological features or deposits are uncovered, time will be allowed for these to be excavated, planned and recorded.

There will be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. For linear features 1m wide sections will be excavated across their width to a total of 10% of the overall length. Discrete features, such as pits, will have 50% of their fills excavated, although certain features may be fully excavated. Complex archaeological structures such as walls, kilns, ovens or burials will be carefully cleaned, planned and fully recorded, but where possible left *in situ*. Only if it can be demonstrated that the complex structure/feature is likely to be destroyed by groundworks, and only then after discussion with the ECCHEA, will it be removed.

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

The depth and nature of colluvial or other masking deposits will be established. Therefore, a sondage will be excavated in each trench to test the stratigraphy of the site. This will occur in every trench unless it can be demonstrated that a feature excavated within a particular trench has clearly penetrated into natural.

A representative section will be drawn of each trench, to include ground level, the depth of machining within the trench and the depth of any sondages.

Trained CAT staff will use a metal detector to scan all trenches both before and during excavation. All spoil heaps will also be scanned and finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds, small finds and soil samples.

All features and layers or other significant deposits will be planned, and their profiles or sections recorded. The normal scale will be site plans at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be appropriate.

The photographic record will consist of general site shots, and shots of all archaeological features and deposits. A photographic scale (including north arrow) shall be included in the case of detailed photographs. A photographic register will accompany the photographic record. This will detail as a minimum feature number, location, and direction of shot.

Trenches will not be backfilled until they have been signed off by the ECCHEA.

Site surveying

The evaluation trench and any features will be surveyed by Total Station or GPS, unless the particulars of the features indicate that manual planning techniques should be employed. Normal scale for archaeological site plans and sections is 1:20 and 1:10 respectively, unless circumstances indicate that other scales would be more appropriate.

The site grid will be tied into the National Grid. Corners of excavation areas will be located by NGR coordinates.

Environmental sampling policy

The number and range of samples collected will be adequate to determine the potential of the site, with particular focus on palaeoenvironmental remains including both biological remains (e.g. plants, small vertebrates) and small sized artefacts (e.g. smithing debris), and to provide information for sampling strategies on any future excavation. Samples will be collected for potential micromorphological and other pedological sedimentological analysis. Environmental bulk samples will be 40 litres in size (assuming context is large enough).

Sampling strategies will address questions of:

- the range of preservation types (charred, mineral-replaced, waterlogged), and their quality
- concentrations of macro-remains
- and differences in remains from undated and dated features
- variation between different feature types and areas of site

CAT has an arrangement with Val Fryer / Lisa Gray whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course. Trained CAT staff will process the samples and the flots will be sent to Val Fryer or Lisa Gray for analysis and reporting.

Should any complex, or otherwise outstanding deposits be encountered, VF or LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF/LG and/or the Historic England Regional Advisor in Archaeological Science (East of England) on sampling strategies for complex or waterlogged deposits will be followed, including the taking of monolith samples.

Human remains

CAT follows the policy of leaving human remains *in situ* unless there is a clear indication that the remains are in danger of being compromised as a result of their exposure or unless advised to do so by the project osteologist or ECCHEA. If circumstances indicated it were prudent or necessary to remove remains from the site during the evaluation, the following criteria would be applied; if it is clear from their position, context, depth, or other factors that the remains are ancient, then normal procedure is to apply to the Department of Justice for a licence to remove them and seek advice from the project osteologist.

Following HE guidance (HE 2018) if the human remains are not to be lifted, the project osteologist should be available to record the human remain *in situ* (i.e. a site visit). Conditions laid down by the DoJ license will be followed. If it seems that the remains are not ancient, then the coroner, the client, and the ECCHEA will be informed, and any advice and/or instruction from the coroner will be followed.

Photographic record

Will include both general and feature-specific photographs, the latter with scale and north arrow. A photo register giving context number, details, and direction of shot will be prepared on site, and included in site archive.

Finds

All significant finds will be retained.

All finds, where appropriate, will be washed and marked with site code and context number. CAT may use local volunteers to assist the CAT Finds Officer with this task.

Most of our finds reports are written internally by CAT Staff under the supervision and direction of Philip Crummy (Director) and Howard Brooks (Deputy Director). This includes specialist subjects such as:

ceramic finds (pottery and ceramic building material): Matthew Loughton
animal bones: Alec Wade (or Adam Wightman, small groups only)
small finds, metalwork, coins, etc: Laura Pooley
non-ceramic bulk finds: Laura Pooley
flints: Adam Wightman
environmental processing: Bronagh Quinn
project osteologist (human remains): Meghan Seehra

or to outside specialists:

animal and human bone: Julie Curl (*Sylvanus*)
environmental assessment and analysis: Val Fryer / Lisa Gray
radiocarbon dating: SUERC Radiocarbon Dating Laboratory, Glasgow
conservation/x-ray: Laura Ratcliffe (LR Conservation) / Norfolk Museums Service,
Conservation and Design Services

Other specialists whose opinion can be sought on large or complex groups include:

flint: Hazel Martingell
prehistoric pottery: Stephen Benfield / Nigel Brown / Paul Sealey
Roman pottery: Stephen Benfield / Paul Sealey / Jo Mills / Val Rigby /
Gwladys Monteil
Roman brick/tile: Ernest Black / Ian Betts (MOLA)
Roman glass: Hilary Cool
small finds: Nina Crummy
other: EH Regional Adviser in Archaeological Science (East of England).

All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

Requirements for conservation and storage of finds will be agreed with the appropriate museum prior to the start of work, and confirmed to ECCHEA

Post-excavation assessment

An updated post-excavation assessment will be submitted within 2 months or at an alternatively agreed time with the ECCHEA.

Where archaeological results do not warrant a post-excavation assessment then agreement will be sought from the ECCHEA to proceed straight to grey literature / publication.

Results

Notification will be given to ECCHEA when the fieldwork has been completed.

An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment* (HE 2015).

The report will be submitted within 6 months of the end of fieldwork, with a copy supplied to the Historic Environment Advisor as a single PDF.

The report will contain:

- Location plan of trenches in relation to the proposed development. At least two corners of each excavated area will be given a 10 figure grid reference.
- Section/s drawings showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale.
- Archaeological methodology and detailed results including a suitable conclusion and discussion. Appropriate discussion and results section assessing the site in relation to the Regional Research Frameworks (Brown and Glazebrook 2000, Medlycott 2011).
- All specialist reports or assessments
- A concise non-technical summary of the project results.

An OASIS summary sheet shall be completed at the end of the project and supplied to the ECCHEA. This will be completed in digital form with a paper copy included with the archive. A copy (with trench plan) will also be emailed to the Hon. Editor of the Essex Archaeology and History Journal for inclusion in the annual round-up of projects (paul.gilman@me.com).

Publication of the results at least a summary level (i.e. round-up in *Essex Archaeology & History*) shall be undertaken in the year following the archaeological fieldwork. An allowance will be made in the project costs for the report to be published in an adequately peer reviewed journal or monograph series.

Archive deposition

The requirements for archive storage shall be agreed with the Curating museum.

The paper archive will be deposited with the appropriate museum within two months of the completion of the final publication report and confirmed in writing to the ECCHEA.

The digital archive resulting from the work will be deposited with the Archaeology Data Service (www.archaeologydataservice.ac.uk) to safeguard the long-term curation of the digital records. The ECCHEA will be notified when the digital archive has been deposited. Prior to deposition CAT's data management plan (based on the official guidelines from the Digital Curation Centre [DCC 2013]) will ensure the integrity of the digital archive. A summary of the contents of the archives shall be supplied to the ECCHEA at the time of their deposition.

Monitoring

ECCHEA will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.

Notification of the start of work will be given ECCHEA one week in advance of its commencement.

Any variations in this WSI will be agreed with ECCHEA prior to them being carried out.

ECCHEA will be notified when the fieldwork is complete.

The involvement of ECCHEA shall be acknowledged in any report or publication generated by this project.

References

Note: CAT reports, except for DBAs, are available online in PDF format at <http://cat.essex.ac.uk>

Brown, D	2011 (2 nd Ed.)	<i>Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation</i>
Brown, N and Glazenbrook, J	2000	<i>Research and Archaeology: a frame work for the Eastern Counties 2 Research agenda and strategy</i> , East Anglian Archaeological, occasional papers 8 (EAA 8)
CAT	2016	<i>Colchester Archaeological Trust Finds Retention Policy</i> . By S Benfield
CAT	2020	<i>Health & Safety Policy</i>
CifA	2014a	<i>Standard and Guidance for archaeological evaluation</i> . Updated Oct 2020
CifA	2014b	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i> . Updated Oct 2020
CifA	2014c	<i>Code of Conduct</i> . Revised Oct 2019
ECCPS	2018	<i>Brief for Archaeological Investigation at The Swayne Park School, Sir Walter Raleigh Drive, Rayleigh</i> . By A Bennett

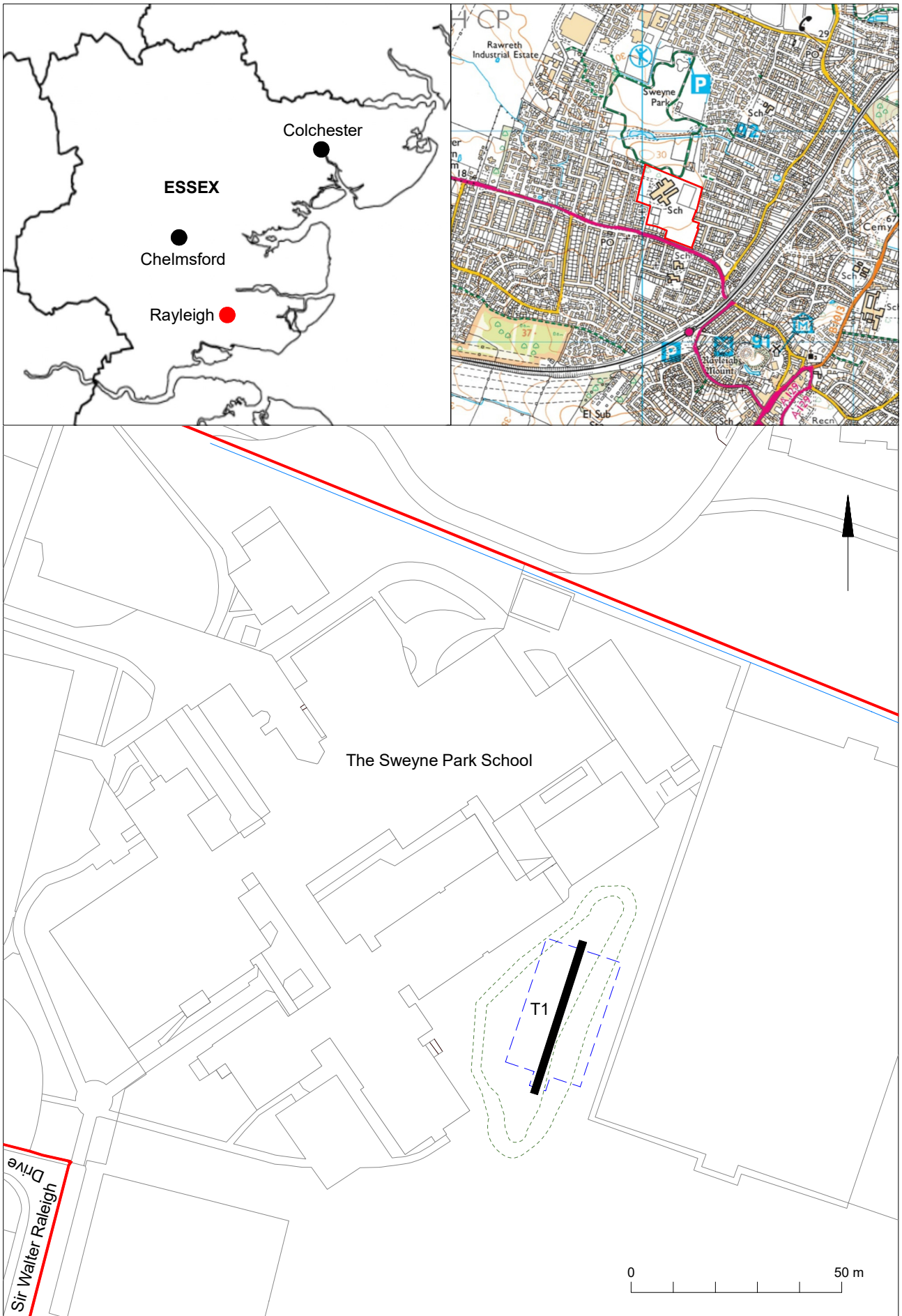
EAA 127	2008	An Early Saxon Cemetery at Rayleigh, Essex: excavations at the former Park School. <i>East Anglian Archaeology 127</i> . By T Ennis
Ennis, T	2005	<i>Former Park School, Rawreth Lane, Rayleigh, Essex. FAU Report 1361</i> (Excavation Report).
Gurney, D	2003	<i>Standards for field archaeology in the East of England</i> . East Anglian Archaeology Occasional Papers 14 (EAA 14).
Historic England (HE)	2015a	<i>Digital Image capture and File Storage: Guidelines for best practice</i> . By S Cole & P Backhouse
Historic England (HE)	2015b	<i>Management of Research Projects in the Historic Environment (MoRPHE)</i>
Historic England (HE)	2018	<i>The Role of the Human Osteologist in an Archaeological Fieldwork Project</i> . By S Mays, M Brickley and J Sidell
Medlycott, M	1999	<i>Rayleigh Historic Town Project Assessment</i> . Essex County Council
Medlycott, M	2011	<i>Research and archaeology revisited: A revised framework for the East of England</i> . East Anglian Archaeology Occasional Papers 24 (EAA 24)
MHCLG	2019	<i>National Planning Policy Framework</i> . Ministry of Housing, Communities and Local Government.
Rumble, A (ed.)	1983	<i>Domesday Book - Essex</i> , Phillimore: Chichester

E Holloway



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Fig 1 Site location and trench layout in relation to proposed development (dashed blue lines).