

Colchester Archaeological Trust



**CAT Report 2179
issued May 2025**

**Archaeological evaluation at land adjacent to the
Lawford Grid Substation, Ardleigh Road, Little Bromley,
Essex, CO11 2QB: May 2025**



**CAT project ref.: 2025/03j
ECC code: EEX61531**

**Archaeological evaluation at land adjacent to
Lawford Grid Substation, Ardleigh Road, Little Bromley,
Essex, CO11 2QB: May 2025**

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**commissioned by Sylvia Lock, Orion Heritage Ltd
on behalf of Lawford Power Ltd**

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Contents

1	Summary	1
2	Introduction	1
3	Archaeological background	2
4	Aims	3
5	Results	3
6	Finds	
6.1	Ceramic building material <i>by Dr Matthew Loughton</i>	9
6.2	Heat-altered flint <i>by Tabitha Lawrence</i>	9
6.3	Animal bone <i>by Alec Wade</i>	10
6.4	Environmental remains <i>by Bronagh Rae-Quinn</i>	10
7	Conclusion	11
8	Acknowledgements	11
9	References	11
10	Abbreviations and glossary	13
11	Contents of archive	13
12	Archive deposition	14
	Appendix 1 Context list	15

Figures after p15

OASIS summary sheet

List of photographs, tables and figures

Cover: Trench 1, view south.

Photograph 1	Pit F5, view west.	4
Photograph 2	North end of T2, view south.	5
Photograph 3	Pit F7, view east.	5
Photograph 4	East end of T4 with ditch F4 visible, view west.	6
Photograph 5	East end of T5, view west.	6
Photograph 6	Ditch F9, view north.	7
Photograph 7	Pit F12, view west.	7
Photograph 8	Ditch F10, view north.	8
Photograph 9	Representative section through the sondage in T8, view south.	8
Photograph 10	South end of T9a, view north.	9
Table 1	Burnt (heat-altered) flint, listed by context.	9
Table 2	Animal bone listed by context.	10

Table 3	Environmental results.	11
Fig 1	Site location and trench layout in relation to site constraints	
Fig 2	Evaluation results.	
Figs 3-4	Detailed trench results.	
Fig 5	Magnetometry survey results (by Sumo Survey) overlaying evaluation results.	
Fig 6	Feature and representative sections.	

1 Summary

An archaeological evaluation consisting of 10 trenches (T1-T9b) was carried out at land adjacent to Lawford Grid Substation, Little Bromley, ahead of the construction and operation of a 50MW Battery Energy Storage Facility and related infrastructure and works. Thirteen features were encountered – mostly undated pits and ditches - all likely related to agricultural activity at the site.

2 Introduction (Fig 1)

This is the report for an archaeological evaluation carried out by Colchester Archaeological Trust (CAT) on land adjacent to Lawford Grid Substation, Ardleigh Road, Little Bromley between the 6th and 9th May 2025. Work was commissioned by Sylvia Lock of Orion Heritage Ltd on behalf of Lawford Power Ltd ahead of the construction and operation of a 50MW Battery Energy Storage Facility.

The planning application (21/02070/FUL) was submitted to Tendring District Council in December 2021, with permission granted in September 2022 for the construction and operation of a 50MW Battery Energy Storage Facility and related infrastructure and associated access, landscaping and drainage on land adjacent to the Lawford Grid Substation, Ardleigh Road, Little Bromley.

As the site lies within an area highlighted by the EHER as having a high potential for archaeological remains an archaeological condition was recommended. In response to consultation with Essex County Council Place Services (ECCPS), the Historic Environment Advisor advised that, to establish the archaeological implications of this application, the applicant should be required to commission a scheme of archaeological investigation in accordance with the *National Planning Policy Framework* (MHCLG 2024).

Condition 14 of the planning permission required that prior to commencement:

- 1) 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.
- 2) No development or preliminary groundworks of any kind shall take place until the completion of the programme of archaeological investigation identified in the written scheme of investigation defined in 1 above except as necessary to fulfil the requirements of this condition.

This report contributes towards discharging part 2 of Condition 14.

All archaeological work was carried out in accordance with a *Brief for Archaeological Evaluation at Land adjacent to Lawford Grid Substation, Ardleigh Road, Little Bromley*, written by Teresa O'Connor

(ECCPS 2024), a *Written Scheme of Investigation* (WSI) prepared by Orion Heritage Ltd (2025), and a *Method Statement* (MS) prepared by CAT (2025a).

In addition to the Brief, WSI and Method Statement, all fieldwork and reporting was undertaken in accordance with:

- *Management of Research Projects in the Historic Environment (MoRPHE)* (Historic England 2015),
- Professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (CIfA 2020a-b, 2022, 2023a-b),
- East of England standards and frameworks published by East Anglian Archaeology (Brown & Glazebrook 2000; Gurney 2003; Medlycott 2011) and the recent review updates on <https://researchframeworks.org/eoe/>
- Relevant health and safety guidelines and requirements (CAT 2025b).

3 Archaeological background

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

The site lies adjacent to a site recorded on the EHER as linear cropmark features (HER 17472). Google imagery appears to show further cropmark features within the proposed site which may represent an enclosure of possible agricultural or settlement origin. In the surrounding area aerial photography reveals a landscape of surviving multi-period archaeological remains. A geophysical survey carried out by SUMO Survey (SUMO Survey 2021) at the development site did not reveal any responses of archaeological interest, instead revealing weak responses of possible natural or agricultural origin.

The Portable Antiquities Scheme records a Bronze Age hoard just north of Little Bromley Road (HER 51070) and further possible ritual prehistoric activity is suggested by a possible ring-ditch (HER 2461) east of the existing substation.

To the north-west there is a probable Roman road, evidence for which was recorded in recent evaluation north of the site in advance of the Norwich to Tilbury National Grid proposals. The evaluation also recorded a prehistoric ditch and cremation burial which was undated as well as pits, postholes and ditches representing a later field system (Wessex Archaeology 2023). Residual Roman pottery was recovered however there was relatively little dating evidence.

The Geology of Britain viewer (1:50,000 scale) shows the site has a bedrock geology of Thames Group (silty clays and clays) with mainly silty clays and clays, some sandy or gravelly, with some silts, sands, gravels and calcareous mudstones.

4 Aims

The aims of the archaeological evaluation were to record the extent of any surviving archaeological deposits and to assess the archaeological potential of the site to allow the ECCHEA to determine if further investigation is required.

5 Results (Figs 2-4 & 6)

Ten trenches were machine excavated under the supervision of a CAT archaeologist. All trenches were 30m long and 1.8m wide, apart from two trenches, T9a and T9b, due to the overhead exclusion zones. These were 20m and 10m long, respectively, by 1.8m wide. All trenches were excavated through grassy topsoil (L1, c 0.3m thick) covering natural (L2, from c 0.3m below current ground level (bcgl)). Thirteen features were encountered overall. There were no features found in T5, T8 and T9b. Sondages were dug in T5 and T8 to confirm the identification of L2 as natural. Agricultural activity in the form of plough scars and wheel ruts was found throughout the site.

A full list of context information can be seen in Appendix 1.

Trench 1 (T1)

T1 was excavated to a depth of 0.36-0.38 bcgl. Natural feature F2 (0.85m+ x 0.9m x 0.14m) went beyond the western limit of excavation (LOE). Undated pits F5 (0.78m x 0.5m x 0.25m) and F8 (0.7m x 0.53m x 0.14m) were both sub-oval.

Trench 2 (T2)

T2 was excavated to a depth of 0.35m bcgl. Small, undated sub-circular pit F11 (0.52m x 0.68m x 0.13m) was encountered at the north end of the trench.

Trench 3 (T3)

T3 was excavated to a depth of 0.25-0.35m bcgl. Sub-rounded pit F7 (1m x 0.64m+ x 0.19m) was undated and went beyond the southern LOE. A NW-SE orientated undated ditch (F6, 2.5m+ x 0.71m x 0.23m) was recorded at the eastern end of the trench.

Trench 4 (T4)

T4 was excavated to a depth of 0.35-0.37m bcgl. Undated ditch F3 (2.6m+ x 0.45m x 0.20m) was NW-SE in orientation and at the eastern end of the trench. Undated ditch F4 (1.8m+ x 1m x 0.19m) was N-S orientated and near the centre of the trench.

Trench 6 (T6)

T6 was excavated to a depth of 0.35m bcgl. Ditch F9 (2.1m+ x 1.2m x 0.3m) was roughly NW-SE in orientation, and post-medieval brick and burnt stone were recovered from the fill. Ditch F10 (1.8m+ x 0.8m x 0.3m), at the eastern end of the trench, was N-S in orientation.

Trench 7 (T7)

T7 was excavated to a depth of 0.35-0.39m bcgl. Sub-rounded pit F12 (1.05m x 0.90m+ x 0.30m) went beyond the western LOE. It contained three fills with charcoal flecks throughout, and the upper fill also contained sparse daub flecks. A sample (<1>) was taken from the middle and lower fills from F12, from which charcoal, burnt stone and a fragment of animal bone were recovered. Roughly E-W undated ditch F13 (1.8m+ x 0.68m x 0.2m) was also encountered in this trench.

Trench 9a (T9a)

T9a was excavated to a depth of 0.3-0.33m bcgl. There were a number of plough scars at the south end of the trench, which truncated F1 (0.6m x 0.5m x 0.25m), a small, sub-circular undated pit.



Photograph 1 Pit F5, view west.



Photograph 2 North end of T2, view south.



Photograph 3 Pit F7, view east.



Photograph 4 East end of T4 with ditch F4 visible, view west.



Photograph 5 East end of T5, view west.



Photograph 6 Ditch F9, view north.



Photograph 7 Pit F12, view west.



Photograph 8 Ditch F10, view north.



Photograph 9 Representative section through the sondage in T8, view south.



Photograph 10 South end of T9a, view north.

6 Finds

6.1 Ceramic building material

by Dr Matthew Loughton

Five fragments (536g) of un-frogged post-medieval brick (probably 16th-early 18th century) were recovered from F9 (finds no. 1). This material was discarded.

6.2 Heat-altered flint

by Tabitha Lawrence

A very small assemblage of heat-altered flint was recovered from F12. This represents only a background scatter of material rather than any significant and deliberate deposits. They were small, shattered pieces, cracked and crazed from the heat and discoloured various shades of white (calcified) and grey. This material has been discarded.

Context	Sample no.	Description
F12	1	Burnt flint: 4 pieces, 2.18g, cracked and crazed, burnt white and grey

Table 1 Burnt (heat-altered) flint, listed by context.

6.3 Animal bone

by Alec Wade

A single undiagnostic bone fragment (weighing less than 1g) was recovered from an environmental sample from the upper fill F12. It is likely to be from an animal of at least sheep or goat size and may (based upon its general morphology) be part of a rib or scapula. The material has been discarded.

Context	Sample no.	Species	No. of pieces	Weight (g)	Comments
F12	<1>	Unidentified	1	<1g	Very small undiagnostic fragment.

Table 2 Animal bone listed by context.

6.4 Environmental remains

by Bronagh Rae-Quinn

Introduction and methodology

A single 10l soil sample was taken from pit F12 and produced minimal environmental evidence. The sample was floated by a trained member of CAT staff and analysed by the author. Nomenclature for all plant remains is taken from Stace (2010). The sample was processed using a serif-style flotation device which produced a flot and a larger residue. Flots were collected in a 300-micron mesh and scanned using a microscope (magnification x10), while the larger residues were scanned by eye and any charcoal/charred wood removed by hand.

Results

Other than a moderately high density of charcoal, the only other remains were a single fragment of charred hazel nut shell (*Corylus avellana*).

Sample No.		1
Context No.		F12
Tree/Shrub macrofossils		
<i>Corylus avellana</i> L.	Hazel (nut shell fragments)	x
Other remains		
Charcoal >10mm		xxx
Charcoal 4-10mm		xxxxx
Charcoal <4mm		xxxxx
Charred twigs/roundwood		x
Modern plant material (rootlets)		xx
Sample volume (litres)		10
Volume of flot (litres)		0.22
% flot sorted		100%

Key	
x	0-10
xx	10-25
xxx	25-50
xxxx	50-100
xxxxx	100+

Table 3 Environmental results.

Potential, significance and recommendations

The sample taken from the evaluation produced minimal environmental remains. Whilst the hazel nut shell fragment is noteworthy, without further contextual information it provides minimal interpretative value to the site. Whilst further testing, including radiocarbon dating, could be undertaken on the hazel nut fragment it is not recommended at this time as the sample was taken from an undated pit.

7 Conclusion (Fig 5)

Archaeological trial-trenching near Lawford Grid Substation, Little Bromley revealed thirteen features, consisting of pits and ditches. Ditches F3, F6 and F9 are all on the same orientation (NW-SE), and F9 appears to align with a possible land drain identified on the geophysical survey results (Fig 5). It is likely F3 and F6 are also land drains. The weak linears picked up in the geophysical survey (green lines in Fig 5) did not appear in the evaluation, so are likely natural in origin, or minor features that did not penetrate the natural. Ditches F4, F10 and F13 do not appear on OS maps but may represent former field boundaries or further field drainage. The remaining features are also likely to be related to similar agricultural activity at the site.

8 Acknowledgements

CAT would like to thank Sylvia Lock of Orion Heritage Ltd and Lawford Power Ltd for commissioning and funding the project. The project was managed by A Wightman and C Lister, with fieldwork carried out by B Holloway with M Perou, A Parker and P Spencer. Figures were compiled by B Holloway and M Beale. The project was monitored for ECCPS Teresa O'Connor.

9 References

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

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10 Abbreviations and glossary

Bronze Age	from 2600 BC to 700 BC
CAT	Colchester Archaeological Trust
CifA	Chartered Institute for Archaeologists
context	a single unit of excavation, which is often referred to numerically, and can be any feature, layer or find
ECC	Essex County Council
ECCHEA	Essex County Council Historic Environment Advisor
ECCPS	Essex County Council Place Services
EHHER	Essex Historic Environment Record
feature (F)	an identifiable thing like a pit, a wall, a drain: can contain 'contexts'
layer (L)	distinct or distinguishable deposit (layer) of material
medieval	period from AD 1066 to 1540
modern	period from AD 1901 to present day
natural	geological deposit undisturbed by human activity
NGR	National Grid Reference
OASIS	O nline A cces S to the Index of Archaeological Investigation S , http://oasis.ac.uk/pages/wiki/Main
post-medieval	from AD 1540 to 1901
prehistoric	pre-Roman
Roman	the period from AD 43 to c AD 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
WSI	written scheme of investigation

11 Contents of archive

Finds: discarded

Digital record:

CAT Report 2179

ECC Brief, CAT Method Statement

Digital photographs

Site data (including scans of original sections)

Survey data

12 Archive deposition

The digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex, CO2 7GZ but will be permanently deposited with the Archaeology Data Service.

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Distribution list:

Sylvia Lock, Orion Heritage Ltd

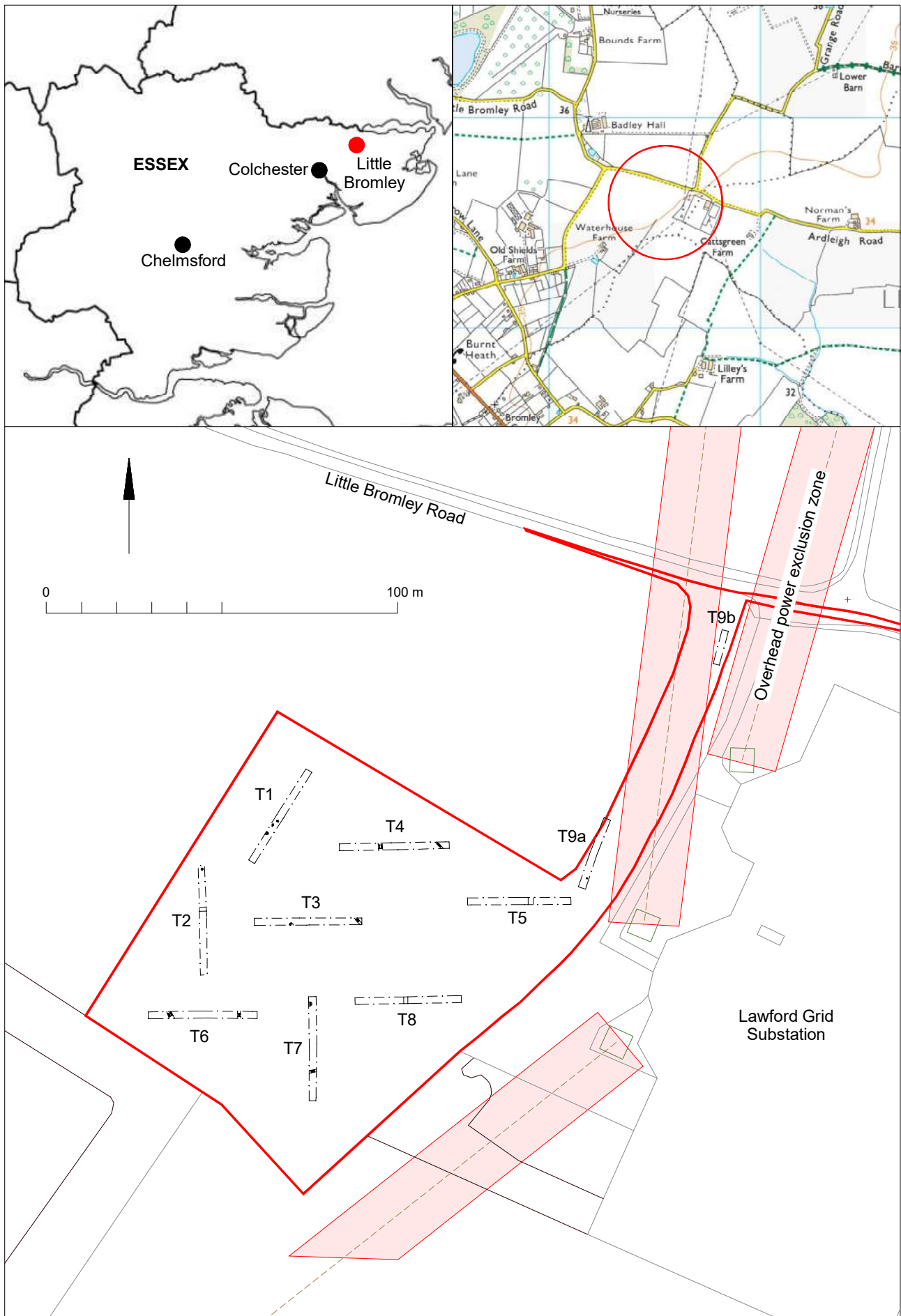
Lawford Power Ltd

ECC Place Services Historic Environment Advisor

Essex Historic Environment Record, Essex County Council

Appendix 1 Context list

Context	Finds no.	Interpretation	Soil description	Period
L1	-	Topsoil	Soft/friable medium grey/brown silt and inclusions of: stone 1%	Modern
L2	-	Natural	Friable medium brown/grey sandy silt and inclusions of: stone 2%	Post-glacial
F1	-	Pit	Soft dry very light brown/grey silty clay with charcoal flecks and inclusions of: stone 1%	Undated
F2	-	Natural feature	Soft moist medium yellow/brown sandy silt and inclusions of: stone 1%	Undated
F3	-	Ditch	Soft dry very light brown/grey silty clay and inclusions of: stone 1%	Undated
F4	-	Ditch	Soft dry light yellow/orange/brown silt and inclusions of: stone 2%	Undated
F5	-	Pit	Upper: firm light orange/yellow sandy silt and inclusions of: stone 1% Lower: soft medium grey sandy silt with charcoal flecks and inclusions of: stone 2%	Undated
F6	-	Ditch	Soft dry light grey/brown silty clay and inclusions of: stone 2%	Undated
F7	-	Pit	Soft dry dark yellow/grey silt and inclusions of: stone 1%	Undated
F8	-	Pit	Soft moist medium grey/brown silt and inclusions of: stone 2%	Undated
F9	1	Ditch	Firm moist medium grey/brown silt with charcoal and manganese flecks and inclusions of: stone 2%	Post-medieval
F10	-	Ditch	Firm moist light/medium grey/brown silt and inclusions of: stone 1%	Undated
F11	-	Pit	Soft dry medium orange/grey silt and inclusions of: stone 1%	Undated
F12	-	Pit	Upper: firm dark grey/brown sandy silt with charcoal and daub flecks with inclusions of: stone 2% Mid: firm light grey sandy silt with manganese and charcoal flecks with inclusions of: stone 3% Lower: mid grey/brown silt with charcoal flecks and inclusions of: stone 1%	Undated
F13	-	Ditch	Soft dry yellow/orange/grey silt and inclusions of: stone 1%	Undated



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Fig 1 Site location and trench layout in relation to site constraints.

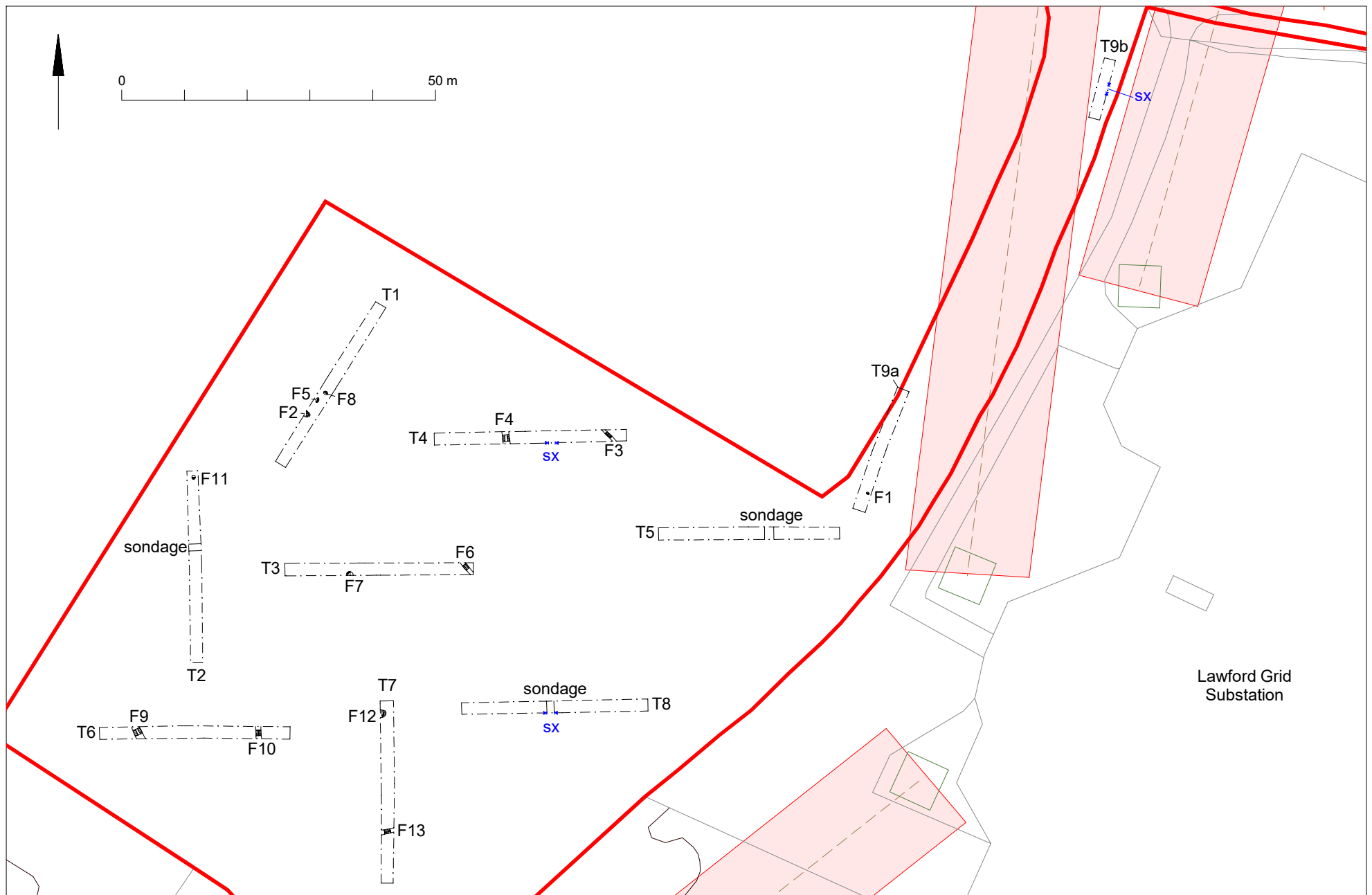


Fig 2 Evaluation results. Red areas represent overhead exclusion zones.

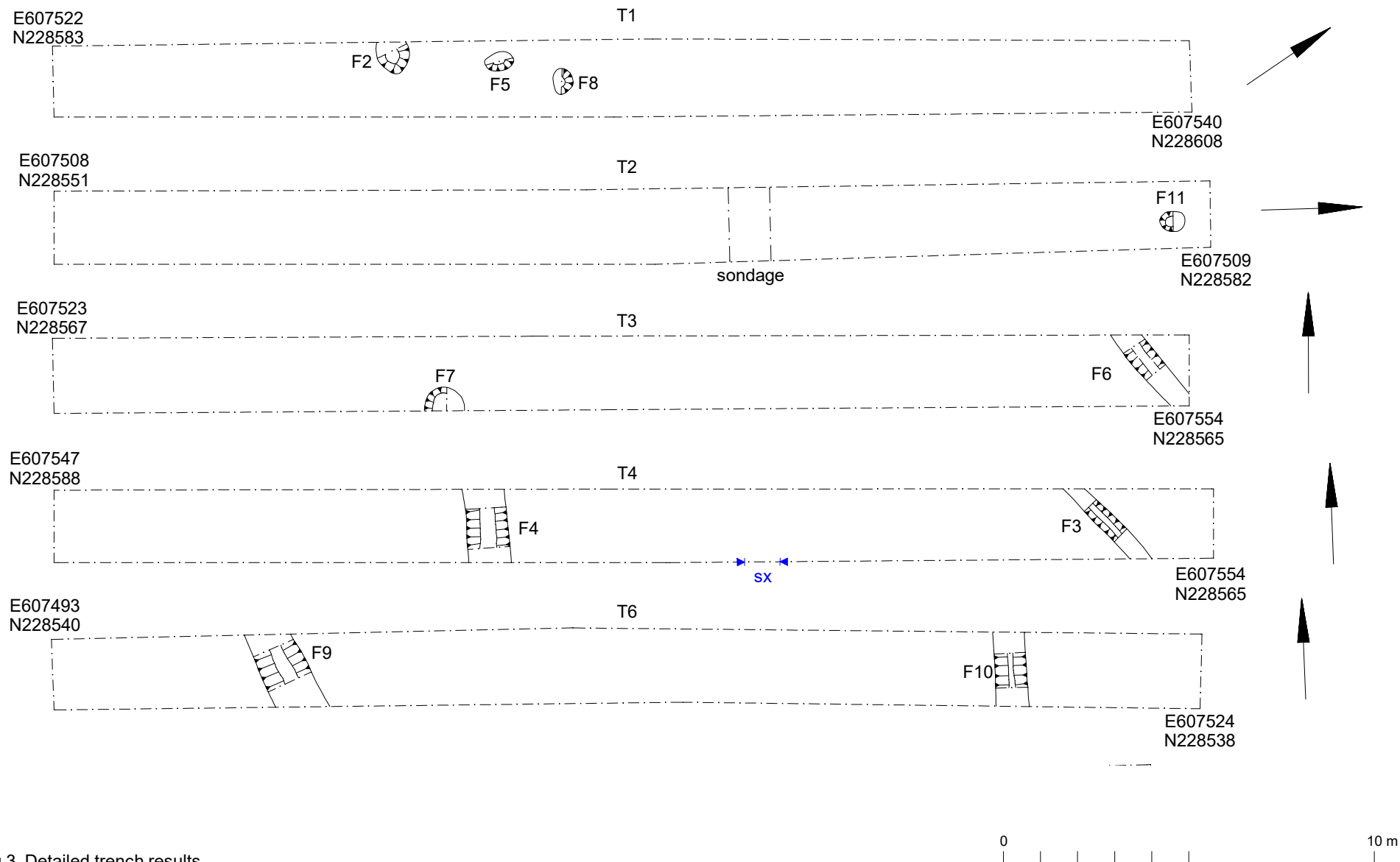


Fig 3 Detailed trench results.

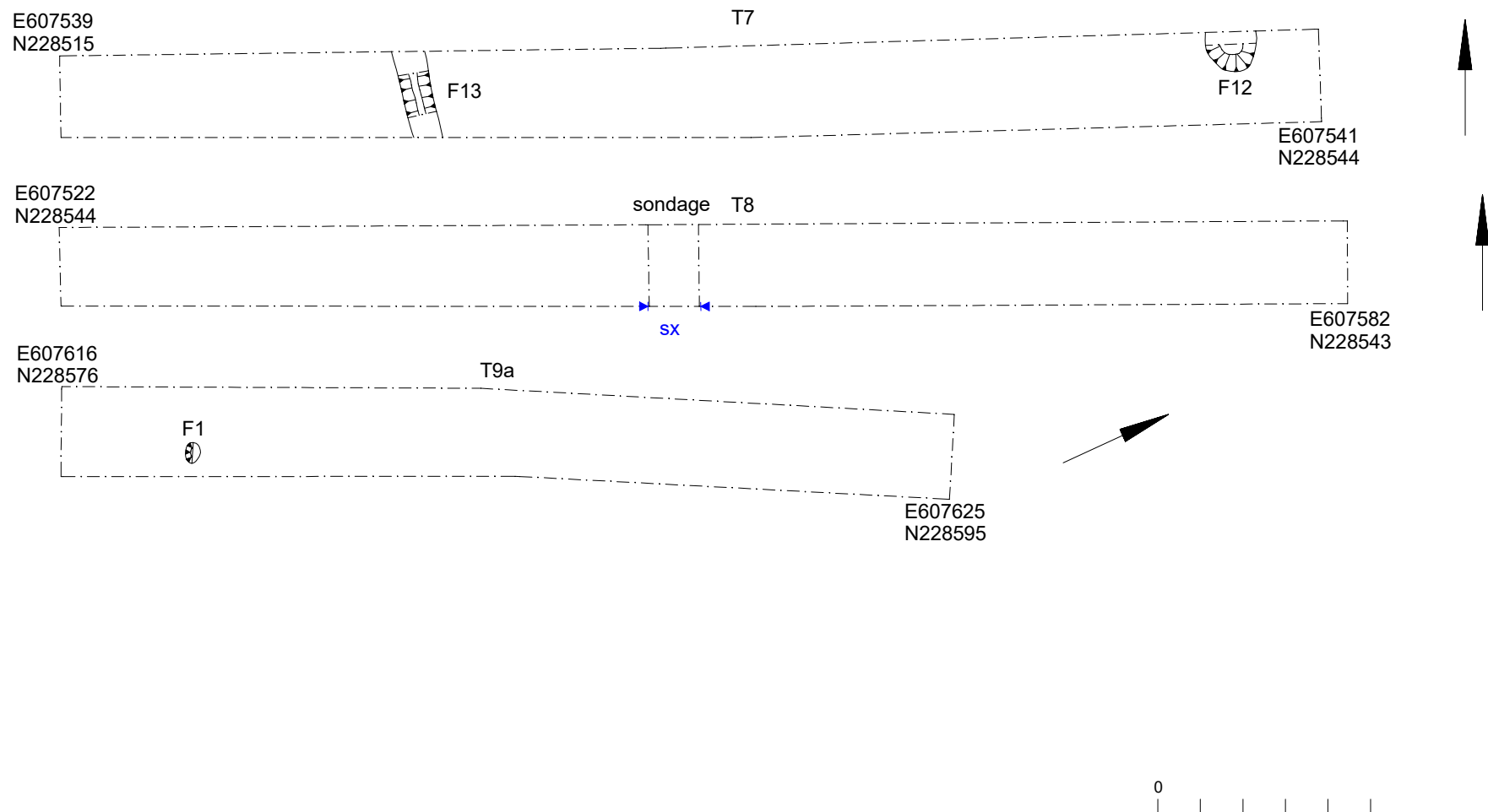
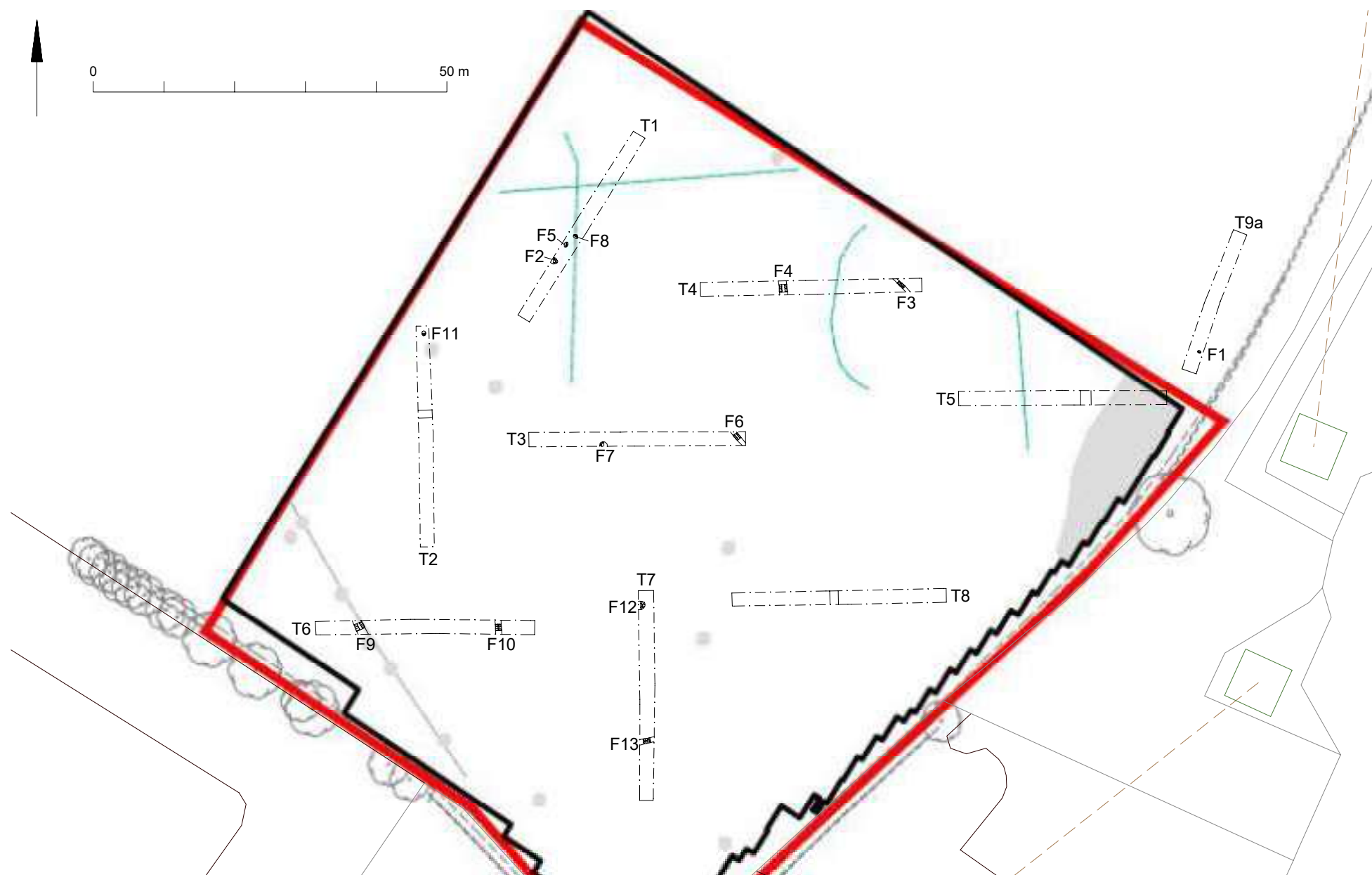


Fig 4 Detailed trench results.



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Fig 5 Geophysical survey results (by Sumo Survey) overlaying evaluation results.

Grey line represents likely land drains, green lines represent weak linear trends of uncertain origins, grey areas represent ferrous/magnetic disturbances

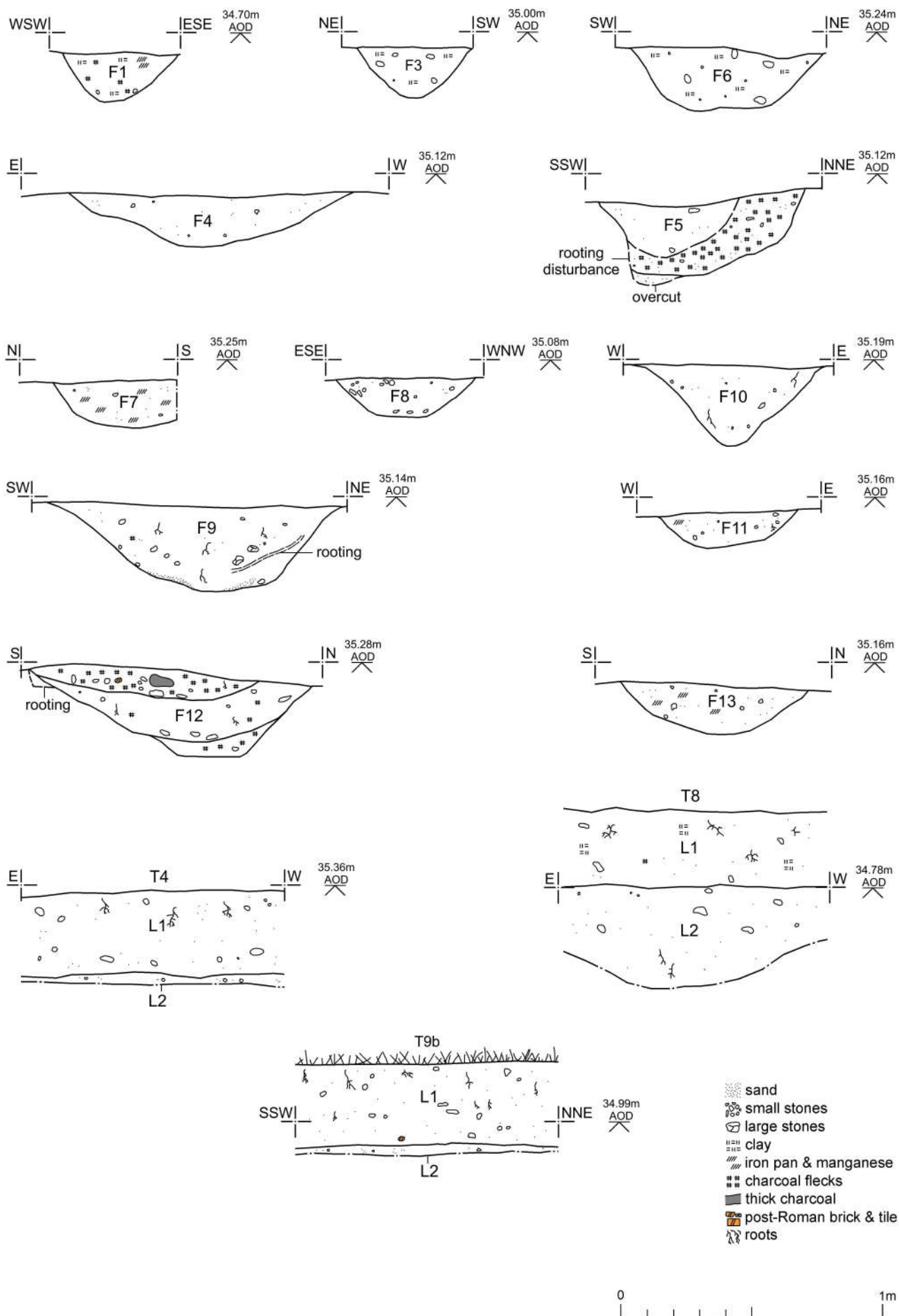


Fig 6 Feature and representative sections.

OASIS Summary for colchest3-532595

OASIS ID (UID)	colchest3-532595
Project Name	Archaeological evaluation at land adjacent to Lawford Grid Substation, Ardleigh Road, Little Bromley, Essex, CO11 2QB: May 2025
Sitename	Land adjacent to Lawford Grid Substation, Ardleigh Road, Little Bromley, Essex, CO11 2QB
Sitecode	EEX61531
Project Identifier(s)	2025/03j
Activity type	Evaluation
Planning Id	21/02070/FUL
Reason For Investigation	Planning requirement
Organisation Responsible for work	Colchester Archaeological Trust
Project Dates	06-May-2025 - 09-May-2025
Location	Land adjacent to Lawford Grid Substation, Ardleigh Road, Little Bromley, Essex, CO11 2QB NGR : TM 07549 28558 LL : 51.91685456157031, 1.016516670953785 12 Fig : 607549,228558
Administrative Areas	Country : England County/Local Authority : Essex Local Authority District : Tendring Parish : Ardleigh
Project Methodology	Ten trial trenches were machine excavated under the supervision of a CAT archaeologist. All work was carried out in accordance with the Brief, WSI and method statement.
Project Results	An archaeological evaluation consisting of 10 trenches (T1-T9b) was carried out at land adjacent to Lawford Grid Substation, Little Bromley, ahead of the construction and operation of a 50MW Battery Energy Storage Facility and related infrastructure and works. Thirteen features were encountered – mostly undated pits and ditches - all likely related to agricultural activity at the site.
Keywords	
Funder	Private or public corporation Lawford Power Ltd
HER	Essex HER - unRev - STANDARD
Person Responsible for work	Chris Lister, Adam Wightman
HER Identifiers	HER Event No - EEX61531
Archives	Digital Archive - to be deposited with Archaeology Data Service Archive;