

Electricity Sub-station University Parks Oxford



Archaeological Evaluation Report

oxfordarchaeology



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and Scottish & Southern Energy Plc**

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Illustrated by Hannah Brown and Amy Hemingway

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Electricity Sub-station, University Parks, Oxford

Archaeological Evaluation Report

Written by Jodie Ford and illustrated by Hannah Brown and Amy Hemingway

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Summary

In February 2009, Oxford Archaeology undertook an archaeological evaluation on the site of the proposed extension to the Electricity Sub-station, University Parks, Oxford (Planning Application 08/02709/FUL). A single trench was excavated revealing undated pits and a ditch that were most likely prehistoric, Roman or medieval in date. A fragment of 13-14th century tile was recovered from a buried soil that sealed the archaeological remains.



1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 Between 11th and 13th of February 2009, Oxford Archaeology (OA) carried out an archaeological evaluation at the site of the proposed extension to the Electricity Sub-Station, University Parks, Oxford (planning application 08/02709/FUL). The work was carried out on behalf of Glanville Consultants Ltd and Scottish and Southern Energy Plc. A brief outlining the archaeological requirements of the work, was produced by David Radford, Oxford City Archaeologist (OCC 2009). Oxford Archaeology produced a Written Scheme of Investigation detailing how the requirements of the brief would be met (OA 2009).
- 1.1.2 The evaluation consisted of a single trench (Trench 1), measuring 2 m x 2 m, located on the eastern boundary of the proposed development area (Fig. 1). A second proposed trench was abandoned for logistical reasons, following discussions with David Radford (OCC).

1.2 Geology and topography

- 1.2.1 The site is located on flat, partially wooded ground at the southern end of University Parks, Oxford, at a height of c 60 m OD.
- 1.2.2 The site lies on the second Radley/Summertown gravel terrace, overlying Oxford Clay.

1.3 Archaeological and historical background

General

- 1.3.1 The archaeological background to the site has been the subject of a Desk Based Assessment (OA 2008). The following information is summarised from that report.

Prehistoric

- 1.3.2 There is no recorded evidence for early prehistoric deposits in the Parks area. The gravel terrace, on which the site is located, represents a post-glacial landscape where the ground surfaces of the Palaeolithic and Mesolithic periods have been eroded away. It is possible that early prehistoric dislocated flint artefacts may survive within the site, but none have been recorded nearby.
- 1.3.3 Extensive evidence for later prehistoric activity is recorded from the immediate area. This evidence includes at least six Neolithic/Bronze Age ring ditches and other features to the north of the site, noted on aerial photographs of University Parks. The closest crop-marks to the site are c 40 m to the north of the proposed cable route, but archaeological features are likely to extend southwards (Fig. 1). It has been suggested that the low ridge of gravels between the courses of the Thames and the Cherwell (and upon which the site is located) was a particular focus of ritual or ceremonial activity in the Neolithic and Bronze Age periods (Boston *et al* 2003, 197-200; Dodd 2003, 9).
- 1.3.4 This prehistoric ritual landscape extends to the east and south-east of the site, as indicated by the partially excavated Bronze Age barrows from the Gene Function Centre (c 80 m from the site) and the Rex Richards Building (c 140 m from the site). It is likely that the ritual landscape also extended at least as far west and south as Blackhall Way (c 280 m from the site), where recent excavations uncovered part of what appears to be a Neolithic henge monument, and as far south and east as



Mansfield College, where Neolithic or Bronze Age pits were excavated (c 270 m from the site). Intensive use of the landscape appears to have its origin in the Neolithic period but the area continued to be structured and revered in the Bronze Age.

- 1.3.5 There have been a number of finds of undated skeletal material from the Parks Road area, which may represent burials of later prehistoric or Roman date. There have also been observations of undated features and deposits within the vicinity of the site, some of which may also be of later prehistoric origin.
- 1.3.6 Evidence for activity of Iron Age date has also been recognised during investigations on South Parks Road (c 70 m from the site), at the Clarendon Laboratory (c 40 m west of the site), near the University Observatory (c 200 m from the site), and the Rex Richards Building (c 140 m east of the site). This has been interpreted as an Iron Age rural landscape, which may have included settlement, superimposed over the Neolithic/Bronze Age ritual landscape (Booth and Hayden 2001, 329).

Roman and Anglo-Saxon

- 1.3.7 There is extensive and diverse evidence of Romano-British activity around the site. The closest recorded deposits are ditches and a skeleton, found c 20 m south of the cable terminus on Parks Road, and finds of Roman pottery and animal bone c 40 m to the south of the sub-station.
- 1.3.8 Other recorded Romano-British activity comprises possible settlement or field boundary ditches, various artefacts, animal and human bone, and other evidence interpreted as indicating probable occupation or settlement. Excavations at the Radcliffe Science Library extension, c 30 m to the south of the site, revealed Roman boundary ditches and burials (Hassall 1972, 41). The evidence recorded at Mansfield College (Booth and Hayden 2001) and the east end of South Parks Road (Bradley *et al* 2005) shows the presence of a Romano-British rural settlement, c 250 m to the south-east of the site. This evidence included at least one structure and a number of enclosure ditches and other features.
- 1.3.9 The northern edge of the late Saxon burh lies c 650 m to the south of the site. There is currently no Saxon settlement evidence north of those defences. However, recent excavations at St Johns College (c 300 m to the south-west of the site) uncovered a mass grave, which has provisionally been dated to the later Saxon period, and possibly the late 10th century. In this period the site probably lay in an area that was either used for an agricultural regime of low intensity or was effectively waste ground or woodland.

Medieval

- 1.3.10 The results of various excavations in the vicinity of the site indicate that there is minimal likelihood that the area saw significant activity between the end of the Romano-British period and the construction of the Civil War defences in the mid 17th century. Evidence of medieval activity has comprised features or finds characteristic of agricultural land, and medieval cultivation was revealed in an excavation c 180 m east of the site.
- 1.3.11 Documentary and map sources indicate that the area of the site lay outside the northern perimeter of the medieval town of Oxford, and in cultivated land possibly associated with the Manor of Holywell, an ancient property belonging to Merton College (Bradley *et al* 2005, 143).



Post-medieval

- 1.3.12 It is likely that the site continued to be used for cultivation in the post-medieval period. The site is not shown on the de Gomme map of 1644, but lay just to the east of the outer civil war defences. The terminus of the outer defences appears to have survived as an earthwork until the late 19th century, and is shown as such on the Ordnance Survey (OS) First Edition 25 Inch map of 1876. The proposed cable trench appears to just clip the north-western edge of the former earthwork.
- 1.3.13 The OS map of 1876 depicts the site as a park, and also illustrates the rapid growth north-east of the later 18th- and early 19th-century city. By 1939 the Physics Laboratory had been built on part of the former parkland immediately to the west and south of the site; a complex of buildings which was expanded and rebuilt in several phases in the second half of the 20th century.

1.4 Acknowledgements

- 1.4.1 OA extends its thanks to Steve Berger of Glanville Consultants Ltd and David Radford (OCC) for their assistance prior to and during the works.
- 1.4.2 The fieldwork was carried out over 3 days by Jodie Ford (Supervisor) and Gemma Stewart (Assistant Supervisor). The project was managed by Andy Norton (Senior Project Manager). The illustrations were produced by Hannah Brown and Amy Hemingway.



2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

General

- 2.1.1 The aim of the evaluation was to gather sufficient information to generate a reliable predictive model of the extent, character, date, state of preservation and depth of burial of important archaeological remains within the area of study.

2.2 Methodology

- 2.2.1 Mechanical excavation was carried out by a 3.5 tonne tracked excavator fitted with a toothless bucket. Machine excavation was carried out under close archaeological supervision and ceased at the top of the first significant archaeological horizon.
- 2.2.2 All archaeological features were hand sampled and issued with unique context numbers. All recording was in accordance with established OA practice as detailed in the OA Field Manual (OA 1992).

2.3 Finds

- 2.3.1 Bulk finds recovered during the course of the evaluation were bagged by context.

2.4 Paleo-environmental evidence

- 2.4.1 No deposits were encountered during the course of the evaluation that were deemed suitable for environmental sampling.

3 RESULTS

3.1 Presentation of results

- 3.1.1 The results of the evaluation are presented below. Detailed descriptions of the deposits are not included within the main text, unless directly relevant to the discussion, otherwise they are included in the context inventory (Appendix A).
- 3.1.2 A generalised interpretation of the results can be found in Section 4.

3.2 Soils and ground conditions

- 3.2.1 The soils encountered were derived from natural gravels, mixed with silty soils. Tree root disturbance had caused some mixing of deposits.

3.3 Distribution of archaeological deposits

- 3.3.1 Trench 1 was machined to the top of the natural gravel (100), which was located at approximately 62.10 m OD and overlain by c 0.9 m of overburden.
- 3.3.2 The earliest archaeological features in Trench 1 were three pits; pit 103 measured 0.55 m wide and 0.25 m deep; pit 105 measured 1.7 m wide and 0.35 m deep; and pit 107 (of which approximately 25% was visible within the trench) measured 0.5 m wide and 0.7 m deep (Fig. 2, Trench 1 plan and Section 100). All three pits contained an almost identical fill composed of homogeneous yellow-brown silty-sand, from which no finds were recovered. Although there was some root disturbance, the pits were all regular and well defined.
- 3.3.3 A buried soil layer (109; Fig. 2, Section 100) overlay the pits. It was between 0.25 m and 0.4 m thick and was reddish-brown in colour and consisted of a silty-sand with occasional gravel inclusions. The deposit may have been derived by plough action from the disturbed pits, being slightly darker in colour but of the same composition.
- 3.3.4 A single north-west to south-east aligned ditch (110; Fig 2, Trench 1 Plan and Section 100) cut buried soil layer 109. The ditch ran the length of the western limit of excavation, with approximately half of its width exposed within the trench. The ditch was 0.7 m deep, with a projected width of approximately 1 m. Two fragments of butchered cattle bone were recovered from its fill (111).
- 3.3.5 The overburden consisted of a layer of buried soil (109), between 0.25 m and 0.4 m thick. Buried soil layer 109 was overlain by between 0.15 m and 0.25 m of material deposited by landscaping (101), which contained a single fragment of 13th- to 14th-century medieval tile. This was sealed by c 0.25 m of topsoil (102; Fig. 2, Section 100).



4 DISCUSSION

4.1 Reliability of field investigation

- 4.1.1 The findings of the evaluation were limited by logistical concerns. The density of trees/roots within the evaluation area as well as the presence of live electrical cabling limited the evaluation to a single trench, constituting approximately 2.5% of the proposed development area.
- 4.1.2 Although the small size of Trench 1 makes a comprehensive interpretation of the archaeological features difficult, sufficient data were gathered to determine that significant archaeological deposits do exist within the proposed development area.

4.2 Interpretation

- 4.2.1 The results of the evaluation indicate a sequence of activity which can be divided into three phases.
- 4.2.2 The pits preceding the deposition of 109 represent the earliest phase of activity and are undated. In view of the high volume of Neolithic and Bronze Age activity within the University Parks and the surrounding area (OA 2008a), it is reasonable to conjecture that these features could be prehistoric in date. However, the archaeological features are more characteristic of settlement activity rather than features associated with the surrounding ritual landscape.
- 4.2.3 Buried soil horizon 109 is likely to be Roman or medieval in date, based on the prevalence of Romano-British and medieval activity in the area (OA 2008a).
- 4.2.4 Ditch 110 is of a similar or later date than buried soil 109, and is therefore likely to be associated with medieval or Roman agriculture.

4.3 Significance

- 4.3.1 The results of the evaluation suggest that the Neolithic and Bronze Age activity indicated by crop-marks immediately to the north of the site (Fig. 1), continues southwards within the proposed development area. The site forms part of a landscape that extends south and east of the evaluated area to sites with confirmed Bronze Age activity, such as the Gene Function Centre, c 80 m from the site (Boston *et al* 2002) and the Rex Richards Building c 140 m from the site (OA 2008b).
- 4.3.2 Similarly, the evidence of Roman and/or medieval activity may suggest that the evidence for Romano-British rural settlement recorded at the Radcliffe Science Library, (Hassall 1972, 41), Mansfield College (Booth and Hayden 2001) and the east end of South Parks Road (Bradley *et al* 2005), as well as evidence for medieval cultivation at the Sir William Dunn Laboratory (OA 2008a), extends into the evaluated area.



APPENDIX A. BIBLIOGRAPHY AND REFERENCES

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APPENDIX B. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General description				Orientation	NW-SE	
Trench measuring 2 m x 2 m, containing possible later prehistoric pits, a buried soil and a later ditch.				Avg. depth (m)	0.9	
				Width (m)	2	
				Length (m)	2	
Contexts						
context no	type	Width (m)	Thickness (m)	comment	finds	date
100	Layer	-	0.3	Natural gravel	-	-
101	Layer	-	0.3	Landscaping/buried soil layer	CBM	13th-14th C.
102	Layer	-		Topsoil	-	-
103	Cut	0.55	0.25	Pit	-	-
104	Fill	0.55	0.25	Pit fill	-	-
105	Cut	1.7	0.35	Pit	-	-
106	Fill	1.7	0.35	Pit fill	-	-
107	Cut	>0.5	0.25	Pit	-	-
108	Fill	>0.5	0.25	Pit fill	-	-
109	Layer	-	0.3	Poss. Roman ploughsoil	-	-
110	Cut	>0.5	0.7	Ditch	-	-
111	Fill	>0.5	0.7	Ditch fill	Animal bone	-



APPENDIX C. FINDS REPORTS

C.1 Ceramic Building Material

By John Cotter

- C.1.1 A single piece of 13th-14th century tile was recovered from buried soil 101. The tile was a an edge fragment of plain roof tile, which was very well worn, suggesting that it was probably residual.

C.2 Animal Bone

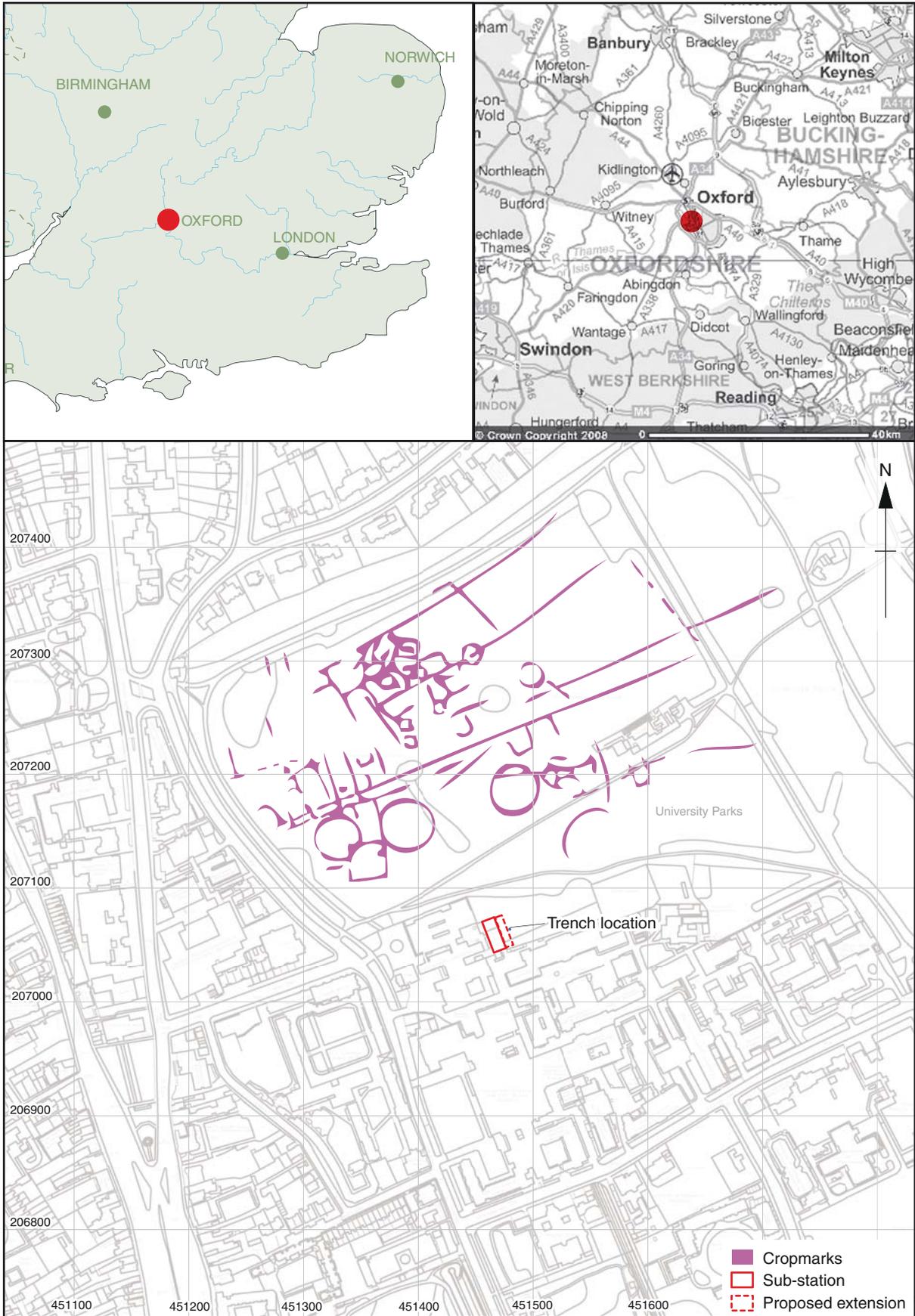
By Lena Strid

- C.2.1 Two fragments of cattle bone were bone were recovered from ditch fill 111, weighing 184 g in total. Both were from adult or sub-adult animals.



APPENDIX D. SUMMARY OF SITE DETAILS

Site name:	Electricity Power Substation, University Parks, Oxford
Site code:	OXUPE09
Grid reference:	NGR SP 5146 0707
Type:	Evaluation
Date and duration:	11/02/09-13/02/09
Area of site:	0.01 ha
Summary of results:	One 2 m x 2 m trench revealing undated pits, a buried soil and a single ditch.
Location of archive:	The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with the Oxfordshire County Museum Service in due course. Accession number TBA.



Scale 1:10,000

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Figure 1: Site location

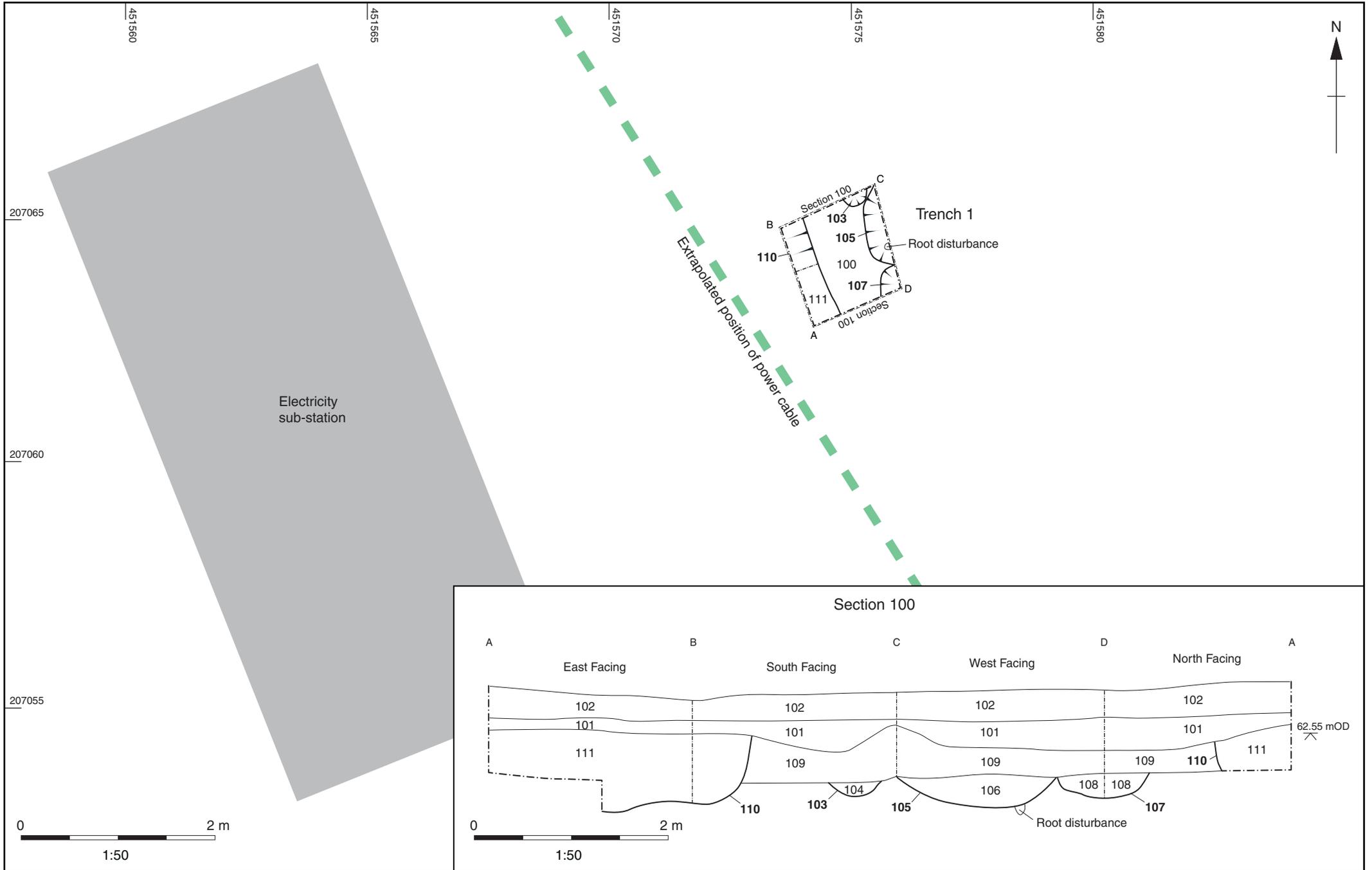


Figure 2: Trench 1 plan and section 100



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