

Land Adjacent to Substation on Pingle Field Bicester Oxfordshire



Archaeological Strip Map and Sample and Watching Brief Report

oxfordarchaeology



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Land Adjacent to Substation on Pingle Field, Bicester, Oxfordshire

Archaeological Strip Map and Sample and Watching Brief Report

Written by Ian Cook and Gerry Thacker and illustrated by Julia Collins.

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Summary

Between the 30th September and the 18th November 2013 Oxford Archaeology (OA) undertook an archaeological strip, map and sample excavation and watching brief on land adjacent to the south of the electrical substation at Pingle Field, Bicester, Oxfordshire. OA were commissioned to undertake the work by ADAS UK Ltd on behalf of SSE. The works involved a watching brief on the excavation of a new cable diversion trench and the strip, map and sample excavation on the footprints of a new switch house and attenuation pond. The underlying alluvial clays, sands and gravels were reached in all areas and further investigated in several locations. A modern cable trench was revealed in the area of the switch house but no archaeological features, deposits or finds were uncovered.

1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA), was commissioned by ADAS UK Ltd on behalf of SSE to undertake a strip map and sample excavation and watching brief on the site of a new switch house, attenuation pond and an associated new cable trench.
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref: 13/00566/F). A brief was set by Richard Oram of Oxfordshire County Council detailing the Local Authority's requirements for work necessary to discharge the planning condition (OCC, 2013).
- 1.1.3 All work was undertaken in accordance with local and national planning policies.

1.2 Location, geology and topography

- 1.2.1 The site is located on the southern side of Bicester, between the town and the retail village, and to the west of the railway line. The site is centred on SP 5839 2193 (Fig. 1).
- 1.2.2 The area of proposed development currently consists of open pasture and a small stream. The area lies at around 65m OD.
- 1.2.3 The geology of the area is alluvium overlying the Kellaways Clay Member (British Geological Survey).

1.3 Archaeological and historical background

- 1.3.1 The archaeological and historical background to the site has been described in detail in the Historic Environment Desk Based Assessment (ADAS 2012). The findings of this formed the basis for the OCC brief, and these are briefly described below.
- 1.3.2 A Roman settlement was excavated 168m to the south of the proposed site, and evidence for Saxon settlement was recorded in the form of ditches and pits to the north-east. A number of medieval ditches were uncovered immediately to the north-east during an archaeological evaluation (ADAS 2012, p 24-25).



- 1.3.3 Since the Desk Based Assessment was undertaken, an excavation in the area of medieval activity revealed medieval ditches associated with agriculture, and hollows containing quantities of Mesolithic flint (OA forthcoming).
- 1.3.4 Further Mesolithic flints were uncovered during an evaluation 400m to the south of the proposal site.
- 1.3.5 The site therefore had the potential to contain remains of Mesolithic, Roman, Saxon and medieval dates.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The site aims were to:

- (i) To determine the presence or absence of any archaeological remains which may have survived, and to ensure their preservation by record to the highest possible standard.
- (ii) To determine or confirm the approximate extent of any surviving remains.
- (iii) To determine the date range of any surviving remains by artefactual or other means.
- (iv) To determine the condition and state of preservation of any remains.
- (v) To determine the degree of complexity of any surviving horizontal or vertical stratigraphy.
- (vi) To assess the associations and implications of any remains encountered with reference to the historic landscape.
- (vii) To determine the potential of the site to provide palaeoenvironmental and/or economic evidence, and the forms in which such evidence may survive.
- (viii) To determine the implications of any remains with reference to economy, status, utility and social activity.
- (ix) To determine or confirm the likely range, quality and quantity of the artefactual evidence present.

2.2 Methodology

- 2.2.1 The fieldwork was commissioned by Diarmuid O Seaneachain of ADAS UK Ltd, and was undertaken by Oxford Archaeology Project Supervisors Steve Leech, Ian Cook and Kevin Moon. The project was managed for OA by Gerry Thacker.
- 2.2.2 The project involved two phases of works (Fig. 2), the watching brief on the new cable trench and the strip map and sample of two areas:
- the footprint for the new switch house building (c. 37.5m by 5m);
 - and of the footprint of the attenuation pond (c. 10m by 8m).



- 2.2.3 The site was located immediately to the south of a live electrical substation, and therefore the possibility of encountering live electrical cables was high. No excavations were undertaken without the consultation and agreement of the main contractor.
- 2.2.4 The overburden was stripped by a 5-tonne 360° mechanical excavator fitted with a toothless ditching bucket under close archaeological supervision.
- 2.2.5 The watching brief and excavation were monitored in order to establish the presence/absence of any archaeological features or deposits and a written and photographic record was made.

3 RESULTS

3.1 Cable Diversion Trench

- 3.1.1 A continuous watching brief was undertaken during the course of the excavation of the new cable diversion trench (Figs 2 and 3).
- 3.1.2 This trench was excavated to a depth of c. 1m into a mid-grey silty clay alluvial deposit (102) that contained small limestone gravel inclusions (Figs. 3 & 4; Plate 1). The alluvial clays were overlain by a 0.4m thick orange/brown clay subsoil (101), interpreted as a buried plough soil, and 0.28m of greyish-brown silty clay topsoil (100). The diversion trench was prone to flooding almost immediately after excavation.
- 3.1.3 No archaeological features or deposits were observed during the course of the watching brief.

3.2 Switch House Building

- 3.2.1 The stripping of the area of the new switch house building was the subject to a strip, map and sample excavation which was carried out under constant archaeological supervision. An area of 33.5m by 7.5m was excavated (Fig. 3 and Plates 2 & 3).
- 3.2.2 This area was reduced to formation level by mechanical excavator to a depth of between 0.5m and 0.7m onto a mixture of grey clay alluvium (105) and pale greyish-yellow sands and gravel (108). These deposits were overlain by a c. 0.38m thick orange/brown clay subsoil (104) and a 0.25m thick grey/brown silty clay topsoil (103).
- 3.2.3 A modern 2.8m wide cable trench (106) was observed running across this trench in a north-east to south-west direction (Fig. 4; Plate 4). This contained a backfill deposit of silts and gravels (107). This area was prone to flooding almost immediately after excavation.
- 3.2.4 No other archaeological deposits or features were observed.

3.3 Attenuation Pond

- 3.3.1 The stripping of the area of the attenuation pond was subject to a strip, map and sample excavation which was carried out under archaeological supervision. An area of c. 10m by 8m was excavated by mechanical excavator (Fig. 3; Plate 5).



- 3.3.2 This area was reduced to a depth of 0.5m into a grey/yellow soft clay alluvium (111). The alluvium was overlain by 0.2m thick mid orangey grey silty clay subsoil (110) and a 0.3m thick dark grey/brown silty clay topsoil 109 (Fig. 4; Plate 6).
- 3.3.3 No archaeological features or deposits were observed.
- 3.3.4 The further reduction of the area was monitored to a degree that gave confidence that no archaeological features were present within the alluvium.
- 3.3.5 Richard Oram, Planning Archaeologist for Oxfordshire County Council, was informed of the negative results during all phases of work.

3.4 Finds

- 3.4.1 No archaeological finds were recovered during the course of the works.

3.5 Environmental remains

- 3.5.1 No deposits suitable for environmental sampling were noted during the course of the works.

4 DISCUSSION AND CONCLUSIONS

- 4.1.1 Topsoil and subsoil, interpreted as a buried ploughsoil, were present in all of the areas investigated. The subsoil overlay a mixed alluvial deposit of clays, gravels and sand. Where this alluvial deposit was investigated it contained no archaeological features or artefacts.
- 4.1.2 The substation area and the cable trench were subject to rapid inundation from ground water, although visibility prior to flooding was sufficient to determine the absence of archaeological features.



APPENDIX A. ARCHAEOLOGICAL CONTEXT INVENTORY

Context	Type	Depth m	Width m	Length m	Comments	Finds	Date
100	Layer	0.28	-	-	Topsoil cable trench	-	-
101	Layer	0.4	-	-	Subsoil cable trench	-	-
102	Layer	-	-	-	Alluvium cable trench	-	-
103	Layer	0.25	-	-	Topsoil substation	-	-
104	Layer	0.38	-	-	Subsoil substation	-	-
105	Layer	-	-	-	Alluvial clay substation	-	-
106	Cut	-	2.8	-	Modern Cable Trench	-	-
107	Fill	-	2.8	-	Fill of 106	-	-
108	Layer	-	-	-	Alluvial sand/gravel substation	-	-
109	Layer	0.3	-	-	Topsoil attenuation pond	-	-
110	Layer	0.2	-	-	Subsoil attenuation pond	-	-
111	Layer	-	-	-	Alluvium attenuation pond	-	-



APPENDIX B. BIBLIOGRAPHY AND REFERENCES

ADAS 2012, *Historic Environment Desk Based Assessment Bicester Sub-station, Bicester, Oxfordshire*. ADAS UK Ltd. Unpublished client report.

British Geological Survey <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>

OA forthcoming, *Bicester Village Coach Park* (Oxford Archaeology report)

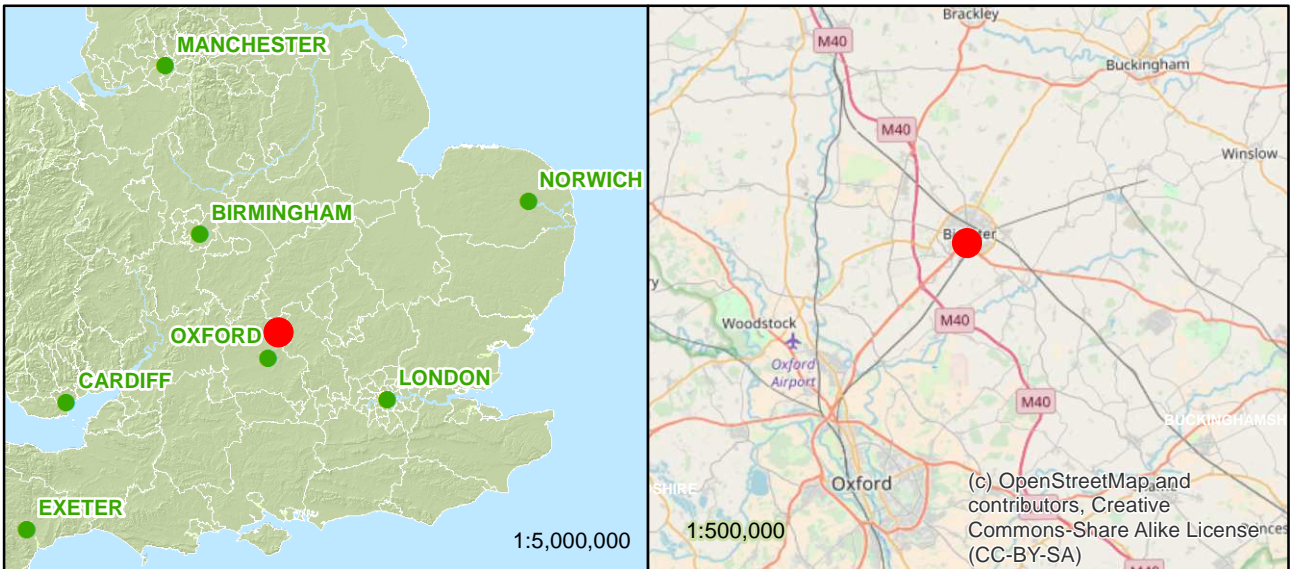
OA 2013, *Land Adjacent to Sub-station on Pingle Field, Bicester*. Written Scheme of Investigation for an Archaeological Excavation and Watching Brief.

OCC 2013, *Design Brief for Archaeological Recording Action. Land Adjacent to Sub-station on Pingle Field, Bicester*. Oxfordshire County Council.



APPENDIX C. SUMMARY OF SITE DETAILS

Site name:	Land Adjacent to Substation on Pingle Field, Bicester, Oxfordshire
Site code:	BIS13
Grid reference:	Centred at NGR NGR: SP 5839 2193
Type of watching brief:	Archaeological Watching Brief and Strip, Map and Sample excavation
Date and duration of project:	30th September 2013 to 18th November 2013
Summary of results:	<p>Between the 30th September 2013 and 18th November 2013 Oxford Archaeology (OA) undertook an archaeological watching brief and strip, map and sample excavation on land adjacent to an electrical sub-station at Pingle Field, Bicester, Oxfordshire. A cable diversion trench was subject to watching brief, and a strip, map and sample was undertaken on the footprints of a new switch house and attenuation pond. The cable diversion trench was reduced to a depth of c. 1 metre, whilst the footprint of the switch house was reduced to a depth of between 0.5 and 0.7m and the attenuation pond was reduced to a depth of 0.5 metres. A modern cable trench was observed in the area of the switch house but no archaeological features or deposits were otherwise uncovered.</p>
Location of archive:	The archive is currently held at Oxford Archaeology, Janus House, Osney Mead, Oxford, OX2 0ES



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Contains Ordnance Survey data © Crown copyright and database right 2012

Figure 1: Location of site

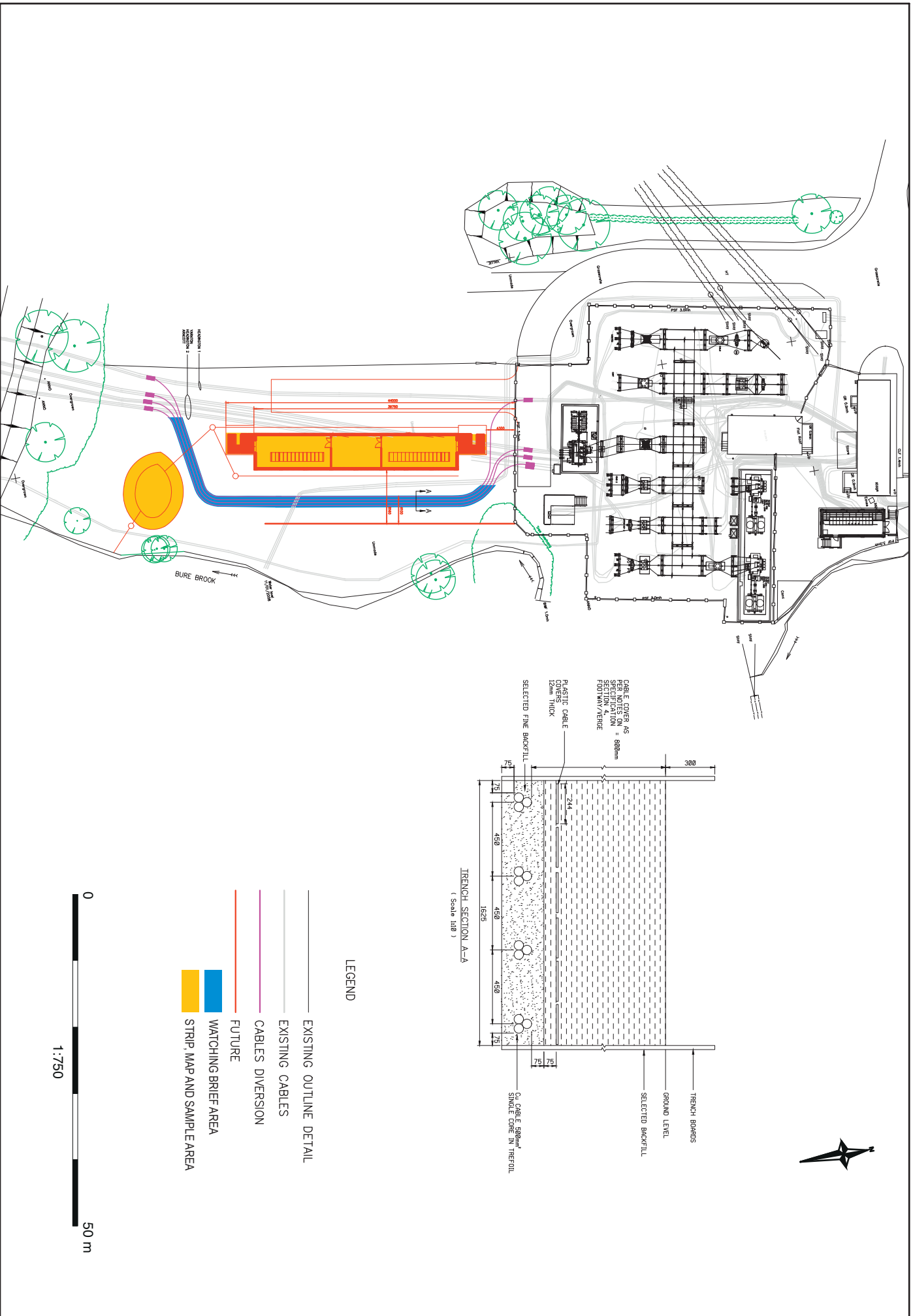


Figure 2: Plan of works

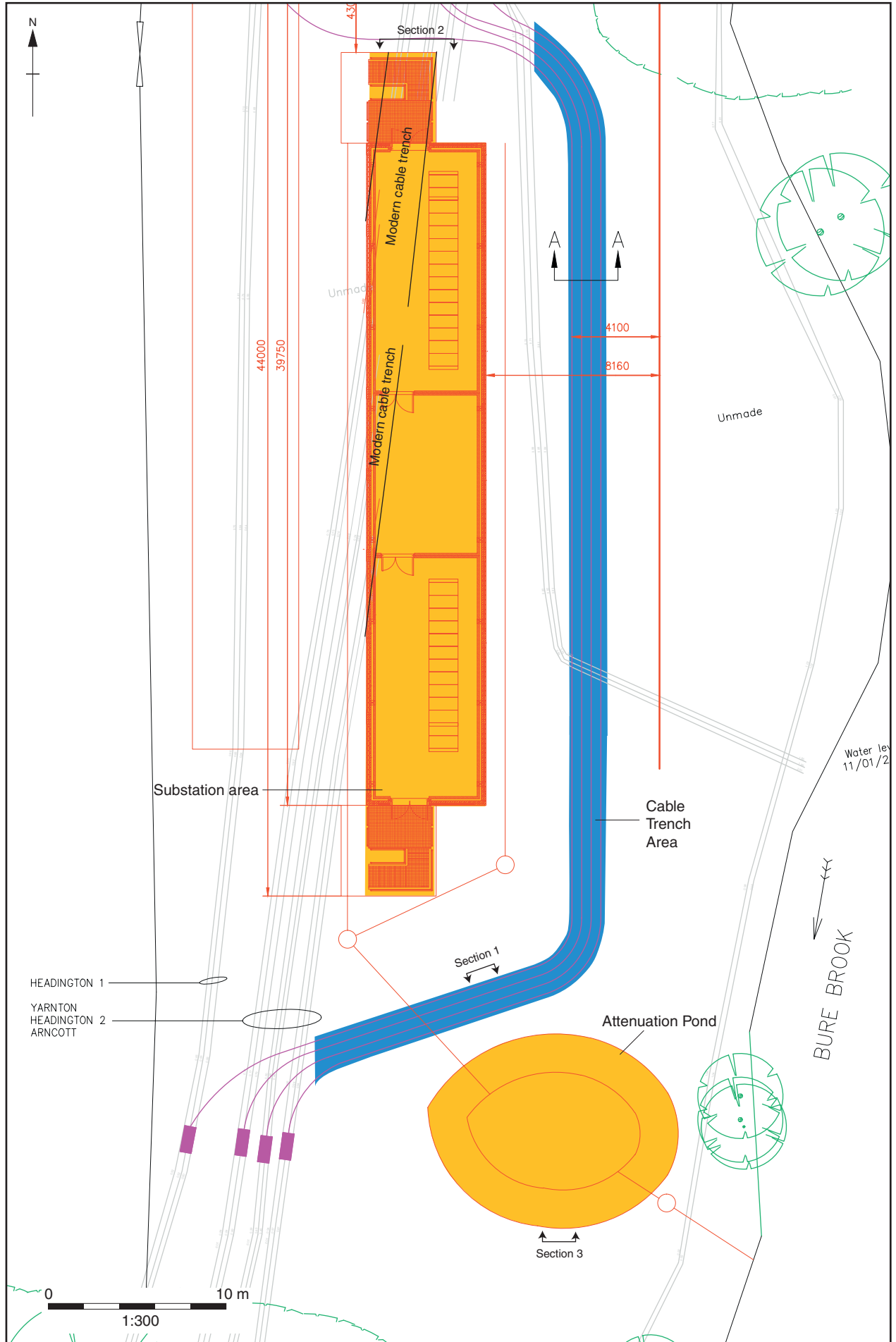
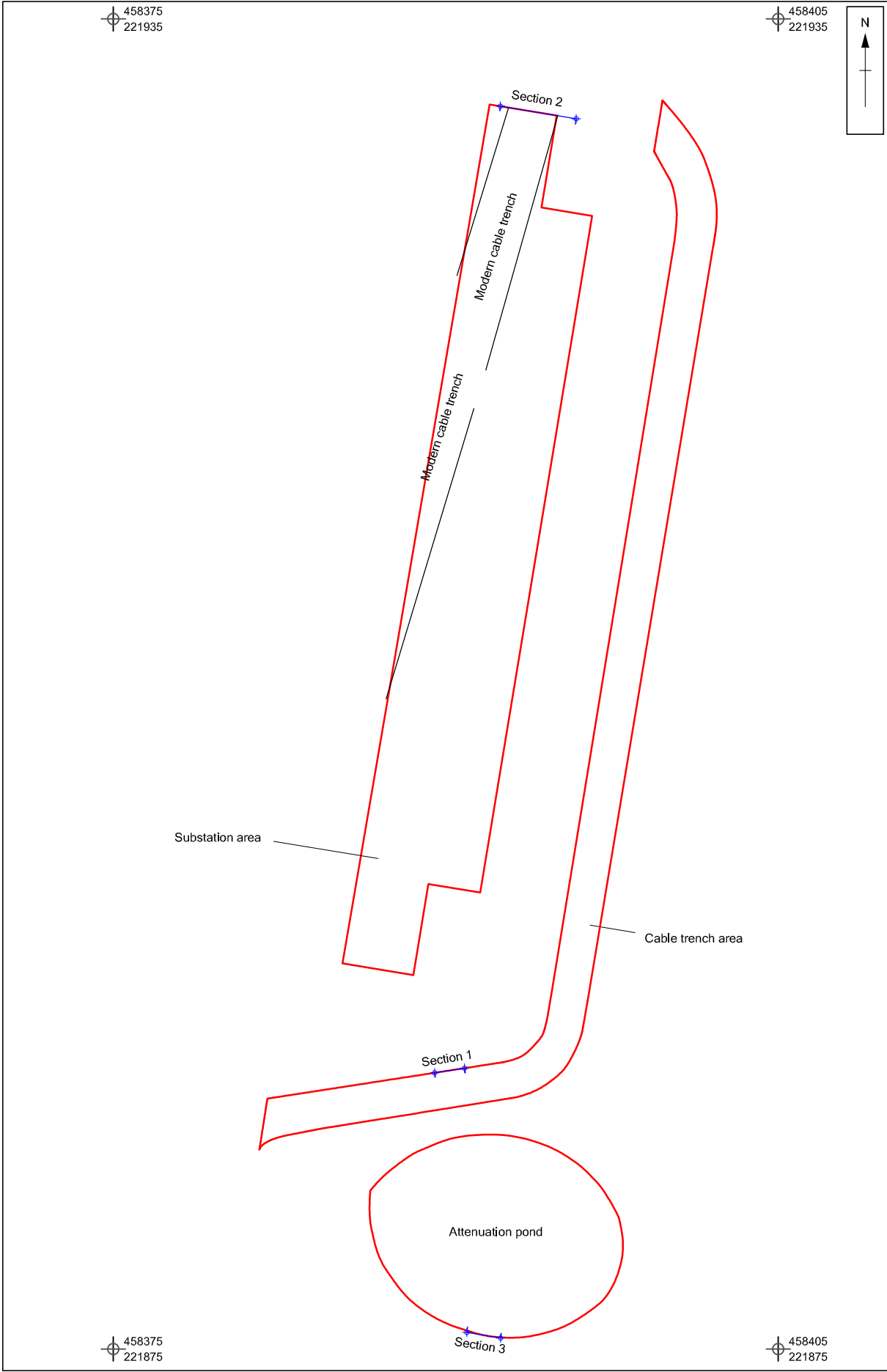


Figure 3: Enhanced plan of works

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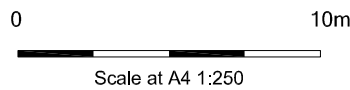
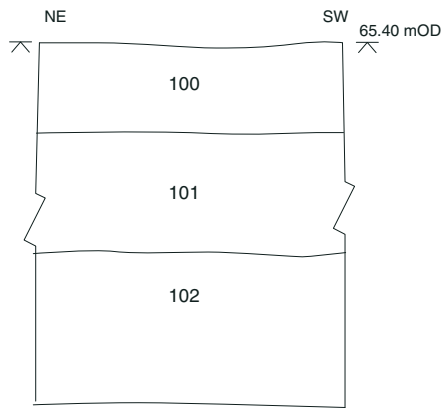
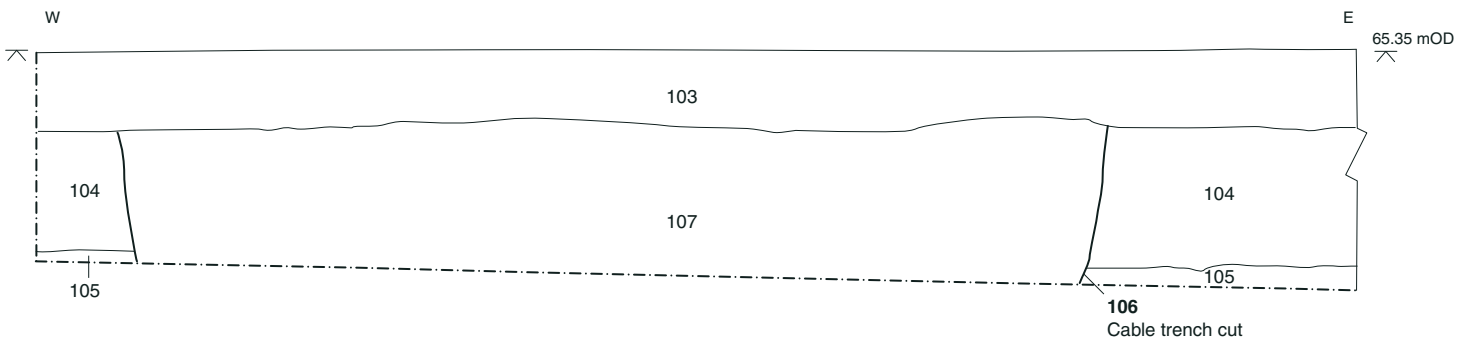


Figure 3a: Enhanced plan of works in OS coordinates

Section 1



Section 2



Section 3

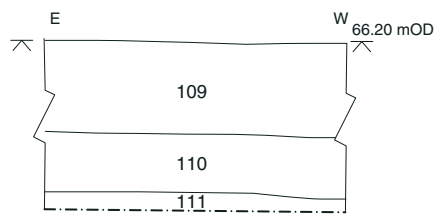


Figure 4: Sections



Plate 1: Cable Trench



Plate 2: Substation area, facing north



Plate 3: Substation area, facing south.



Plate 4: Section 2, south facing



Plate 5: Attenuation pond, facing east.



Plate 6: Section 3, north facing



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