# PROPOSED WIND TURBINE AT COMBS FARM, FARNSFIELD, NOTTINGHAMSHIRE

## SCHEME OF ARCHAEOLOGICAL MITIGATION (STRIP, MAP AND RECORD EXERCISE)

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|---|---|
| NGR: | SK 632 551 |
| Planning ref.: | 12/00716/FUL |
| PCAS Job No.: | 912 |
| Site code: | FCFX 12 |

Report prepared for

Temporis Wind

on behalf of Mr C. Collingham

by

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***Summary***

*A scheme of archaeological mitigation, consisting of a strip, map and record programme, was carried out during the construction of a wind turbine and associated infrastructure on land at Combs Farm near Farnsfield in Nottinghamshire.*

*The development site lies directly adjacent to a Scheduled Ancient Monument: a promontory hillfort of probable Iron Age date. A Roman marching camp, also a Scheduled Ancient Monument, lies at a distance of approximately 1km from the site.*

*No deposits, features or artefacts of archaeological significance were encountered during the mitigation programme.*

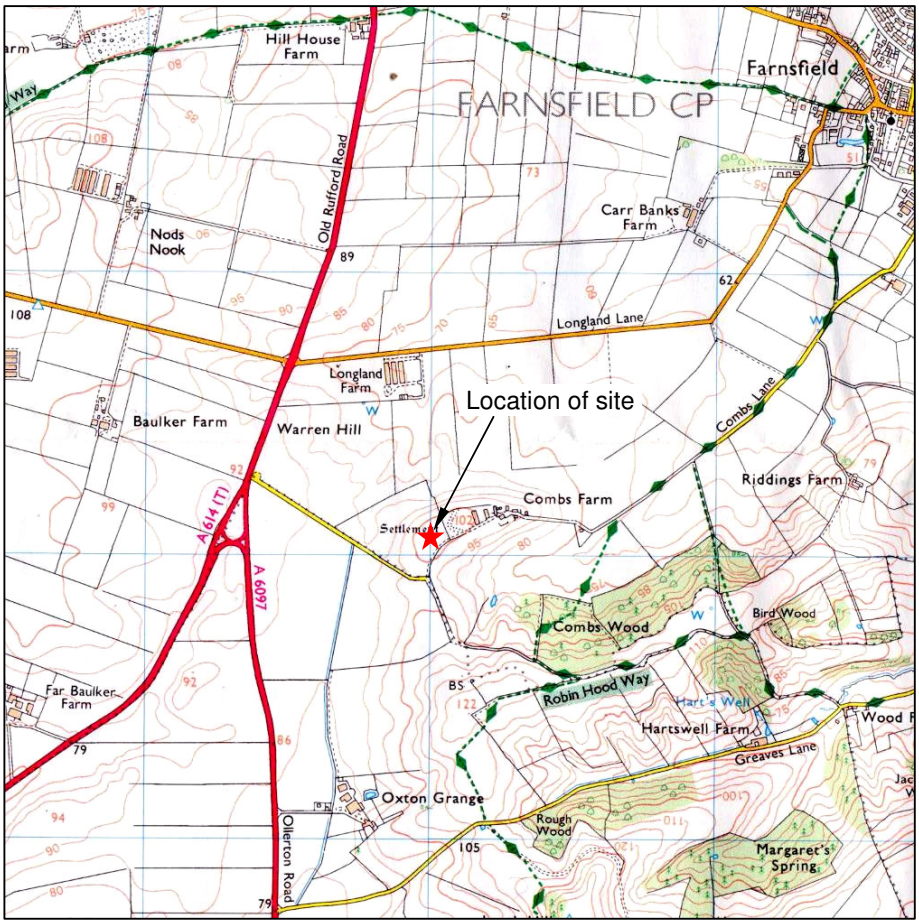



**Figure 1:** Location plan of the site at scale 1:25,000. OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278.

## 1.0 Introduction

Pre-Construct Archaeological Services Ltd. (PCAS) was commissioned by Temporis Wind to carry out a scheme of archaeological mitigation, taking the form of a strip, map and record exercise, in advance of the construction of a single wind turbine on land at Combs Farm, near Farnsfield in the Newark and Sherwood district of Nottinghamshire.

The development site lies close to two Scheduled Ancient Monuments: a hillfort of probable Iron Age date and a Roman marching camp. In the light of this, the Senior Archaeological Officer of Nottinghamshire County Council, acting as Archaeology Leader for Newark and Sherwood District Council, recommended the undertaking of a programme of archaeological work to protect the archaeological interest of the site.

## 2.0 Site location and description (figs. 1 & 2)

The village of Farnsfield lies within the Newark and Sherwood District of Nottinghamshire, approximately 5km north-west of the minster town of Southwell and 10km south-east of Mansfield. Combs Farm is situated at the southern edge of Farnsfield parish, approximately 2km south-west of the village. The development associated with the construction of the wind turbine was restricted to a single arable field to the west of Combs Farm: the turbine was to be sited on the highest part of the field, near its centre on the 100m contour line.

The site is bounded by tracks and existing field boundaries to the north, north-west, east and south-east. The eastern site boundary is a mixed hedgerow of probable pre-enclosure date, with the Scheduled Ancient Monument of Combs Farm Camp and the farm beyond. To the south and southwest the site is bounded by Rob Lane, which follows the parish boundary between Farnsfield and Oxton; the cable route of the wind turbine follows the south-eastern track to its junction with Rob Lane.

## 3.0 Topography and geology

Combs Farm stands near the tip of a raised, curved promontory running north-eastwards from an area of high ground to the south and south-east, forming a desirable site both for a defensible hill fort and for a wind turbine (fig. 2). The site lies at an approximate Ordnance Datum height of 100m; the ground drops steeply away to the north, east and west (plate 1).

The British Geological Survey records no drift deposits in the area of Combs Farm. The exposed solid geology is shown on the 1-inch provisional series map as a promontory of Permo-Triassic Keuper Waterstone jutting out into the surrounding area of Bunter Pebble Peds on which Farnsfield village lies (BGS, 1966); it is mapped online as an outcrop of Tarporley Siltstone Formation surrounded by Nottingham Castle Sandstone Formation (bgs.ac.uk).

## 4.0 Planning background

Full planning permission for the construction of a single wind turbine and associated transformer kiosk was granted on 27th July 2012 (planning application number 12/00716/FUL: granted as an amendment to former planning consent 11/01156/FUL).

This permission was granted subject to the implementation of a programme of archaeological mitigation approved by the Local Planning Authority, in accordance with Core Policy 14 of the Newark and Sherwood Core Strategy and the guidance within the National Planning Policy Framework of 2012 (Condition 16).

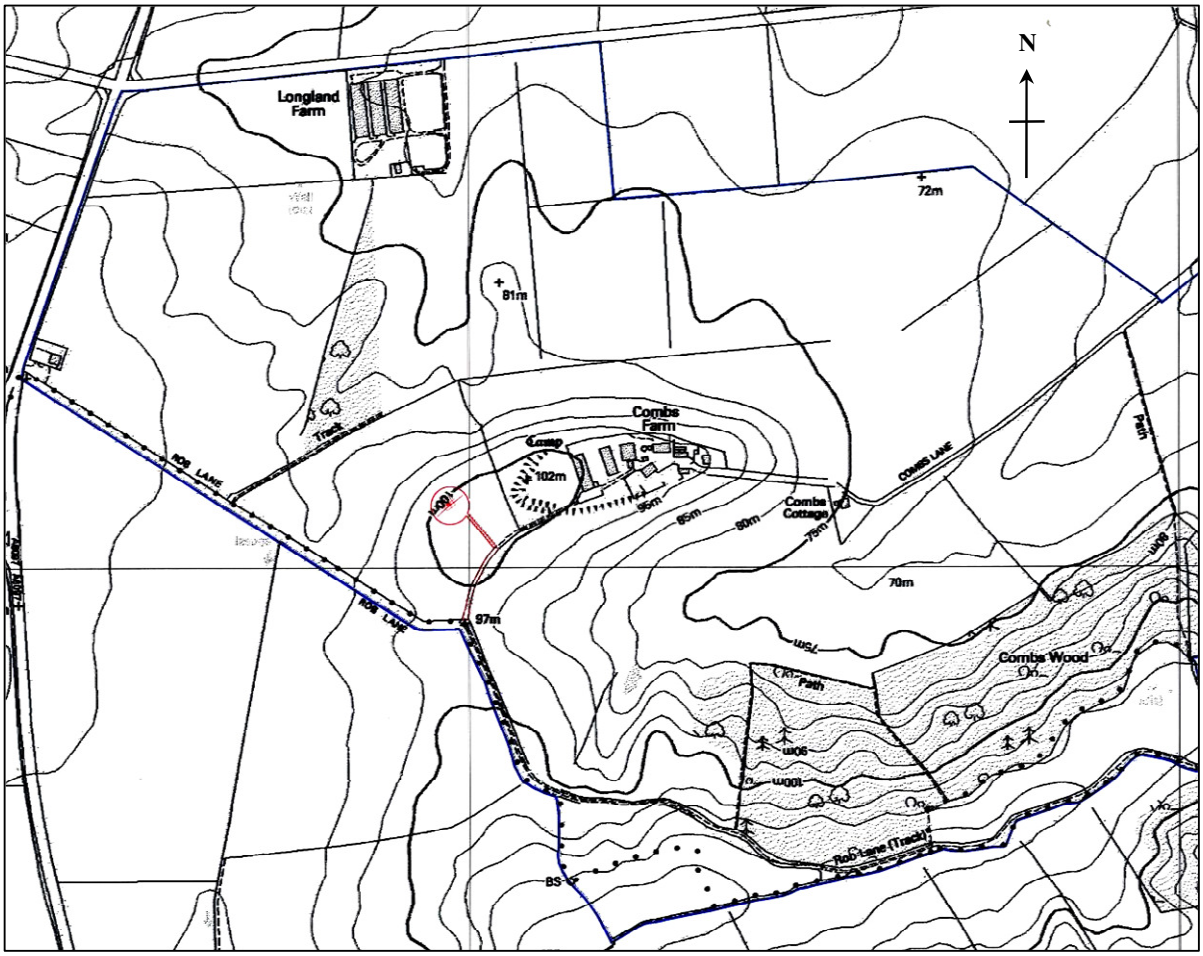
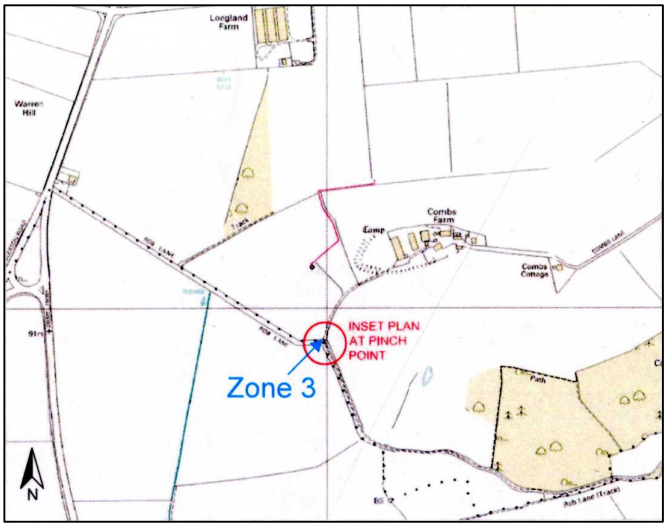


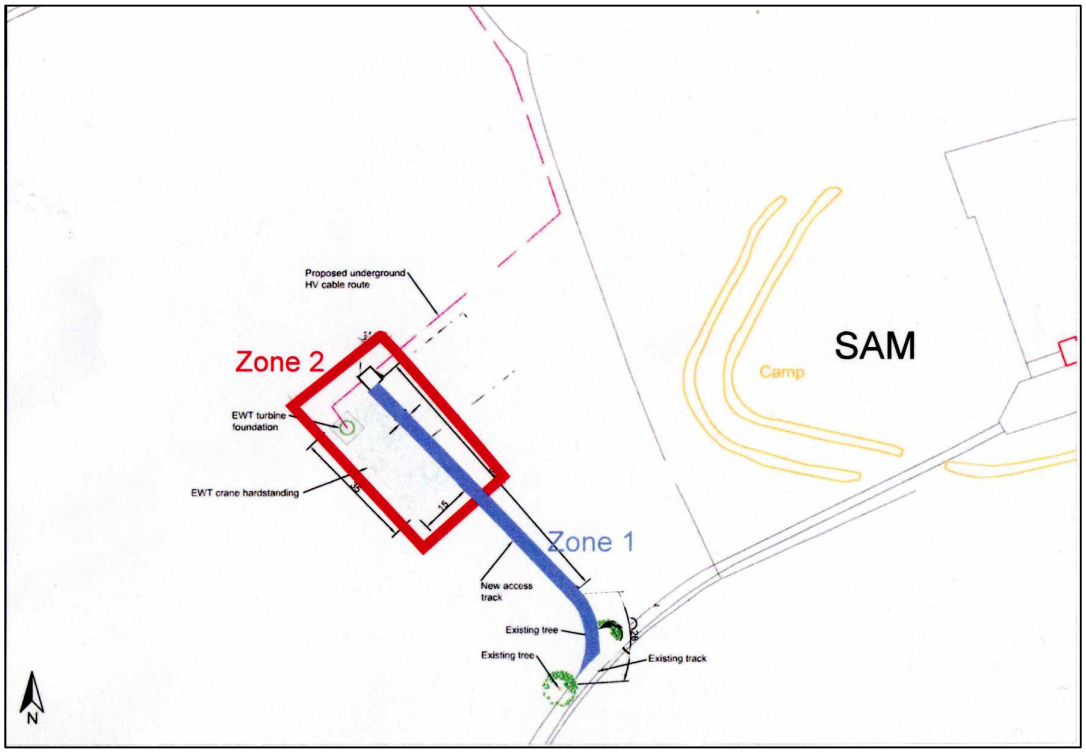

**Figure 2:** Location plan of the development site at scale 1:10,000, showing the positions of the site and the hillfort SAM in relation to the topography of the area. Plan supplied by Temporis Wind.

## 5.0 Archaeological and historical background

A detailed account of the archaeological and historical background of the site can be found in a desk-based assessment carried out in 2011 by the University of Leicester Archaeological Service (Richards, 2011).

The DBA identified no recorded archaeological remains within the proposed development area, but noted the presence of two Scheduled Ancient Monuments close to the site: the earthworks of a univallate hillfort of possible Iron Age date, with associated cropmark remains of an earlier settlement, lying between Combs Farm and the development site (SAM NT113), and the cropmark remains of a Roman marching camp off Longland Lane, approximately 1km to the north-east (SAM 29927). Combs Farm itself could be dated to the post-medieval period, being recorded in the enclosure award of 1779 (*ibid.*).



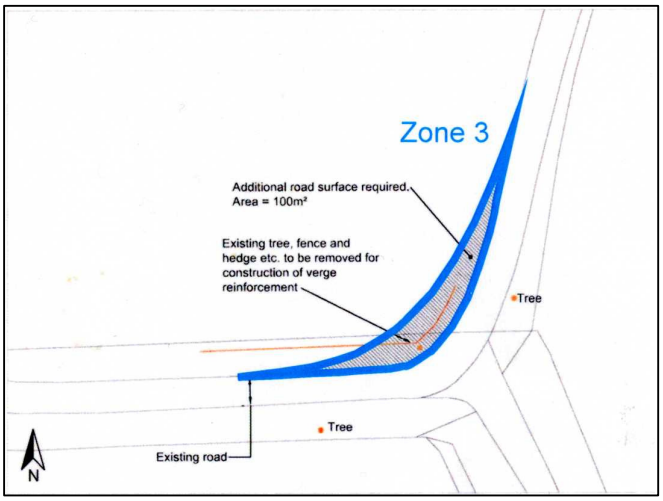




**Figure 3:** Sequence of plans locating the site and the three mitigation zones, not to scale. Plans supplied by Temporis Wind.

## 6.0 Methodology

Development took place within three zones (fig. 3). The length of new access road from the existing track to the turbine compound was designated as Zone 1; it was 4m wide and approximately 100m long. The turbine compound itself was designated as Zone 2: it measured roughly 35m x 15m, and was to contain the turbine base and a surrounding area of hard-standing. Zone 3 comprised an area of additional road surfacing at the point where the existing access track was to be widened at the junction with Rob Lane. A programme of archaeological strip, map and record was required at the commencement of groundworks in all zones, with archaeological monitoring and recording of deeper construction excavations.

The field containing the development site was under a seedling winter cereal crop during the project. At the commencement of groundworks in all zones, topsoil was machine stripped under archaeological supervision, using a 360° excavator fitted with a toothless bucket (plate 1); towards the west of the development area, the machine-strip cut a short way into the underlying subsoil. The machined area was then cleaned by hand to check for the presence of archaeological features. The circular pit for the pylon footing was excavated under archaeological supervision to a safe working depth of 1.5m below existing ground level: the pit was then entered and a sample section cleaned and recorded to ascertain that bedrock had been reached, before the pit was excavated to its full depth of 2.3m.

All deposits encountered were recorded on standard PCAS context recording sheets, and the progress of the groundworks noted on standard general account sheets. Sample sections were drawn at intervals at a scale of 1:10 and plotted on an overall plan of the site made by GPS. A colour slide, monochrome and digital photographic record was maintained: a selection from this is reproduced as Appendix 1.

After the archaeological recording was completed, geotextile and geogrid netting were laid in the strips for the access road and hard-standing, which were then filled with hardcore to existing ground level.

The archaeological mitigation programme commenced on 8th October 2012 and was completed the following day; due to the completely negative results in Zones 1 and 2, the project was discontinued before groundworks took place in Zone 3. Monitoring and recording was carried out by Phil Chavasse.

## 7.0 Results

The machine stripping of the access track and hard-standing area exposed only a subsoil layer of clayey silt 1001, below modern ploughsoil 1000. No features were seen in the surface of the subsoil, and no finds were retrieved.

A sequence of layers was exposed in the deep excavation for the pylon base (plate 3). Bedrock 1004 was reached at a depth of 1.10m below existing ground level (following the removal of some 0.25m depth of topsoil). Above this were two layers that appeared to be natural deposits: marly orange sand 1003 at 0.60m and silty yellow sand 1002 at 0.20m below existing ground level. Subsoil 1001 overlay the upper sand layer 1002. No archaeological features were seen in the sides of the pylon pit, and no finds were retrieved.

## 8.0 Conclusion

Any potential extra-mural activity associated with the scheduled hill fort either did not extend as far as the development site or lay at a depth that was not disturbed by the construction groundworks (access track and hard-standing area).

## 9.0 Effectiveness of methodology

The methodology employed during this project was effective in demonstrating the absence of archaeological features within the confines of the development impact, while ensuring that any features that might have been present would not have been destroyed unrecorded and causing the minimum of disruption to the construction process.

## 10.0 Acknowledgements

PCAS Ltd. would like to thank Temporis Wind for this commission. Thanks are also due to Mr. Jack Bishop (site manager) for his co-operation during the groundworks.

## 11.0 Site Archive

There is currently no museum of record for the district of Newark and Sherwood. The project archive will be prepared for deposition at the offices of PCAS Ltd. in Saxilby, Lincolnshire, and will be curated there until transference to a suitable receiving museum can be arranged.

## 12.0 Bibliography

British Geological Survey consulted online August 2012 at http://mapapps.bgs.ac.uk/geologyofbritain

British Geological Survey (BGS), 1966, *Ollerton: England and Wales 1:50,000 Provisional Series sheet 113, Solid and Drift Edition*. BGS, Keyworth, Nottingham.

Ordnance Survey, 1997, *Sherwood Forest, Mansfield, Worksop & Edwinstowe: 1:25,000 Explorer Series, Sheet 28*. Ordnance Survey, Southampton.

Richards, G., 2011, *An Archaeological Desk-based Assessment on Land at Combs Farm, Farnsfield, Nottinghamshire: ULAS report no. 2011-085*. Unpublished client report for University of Leicester Archaeological Services.

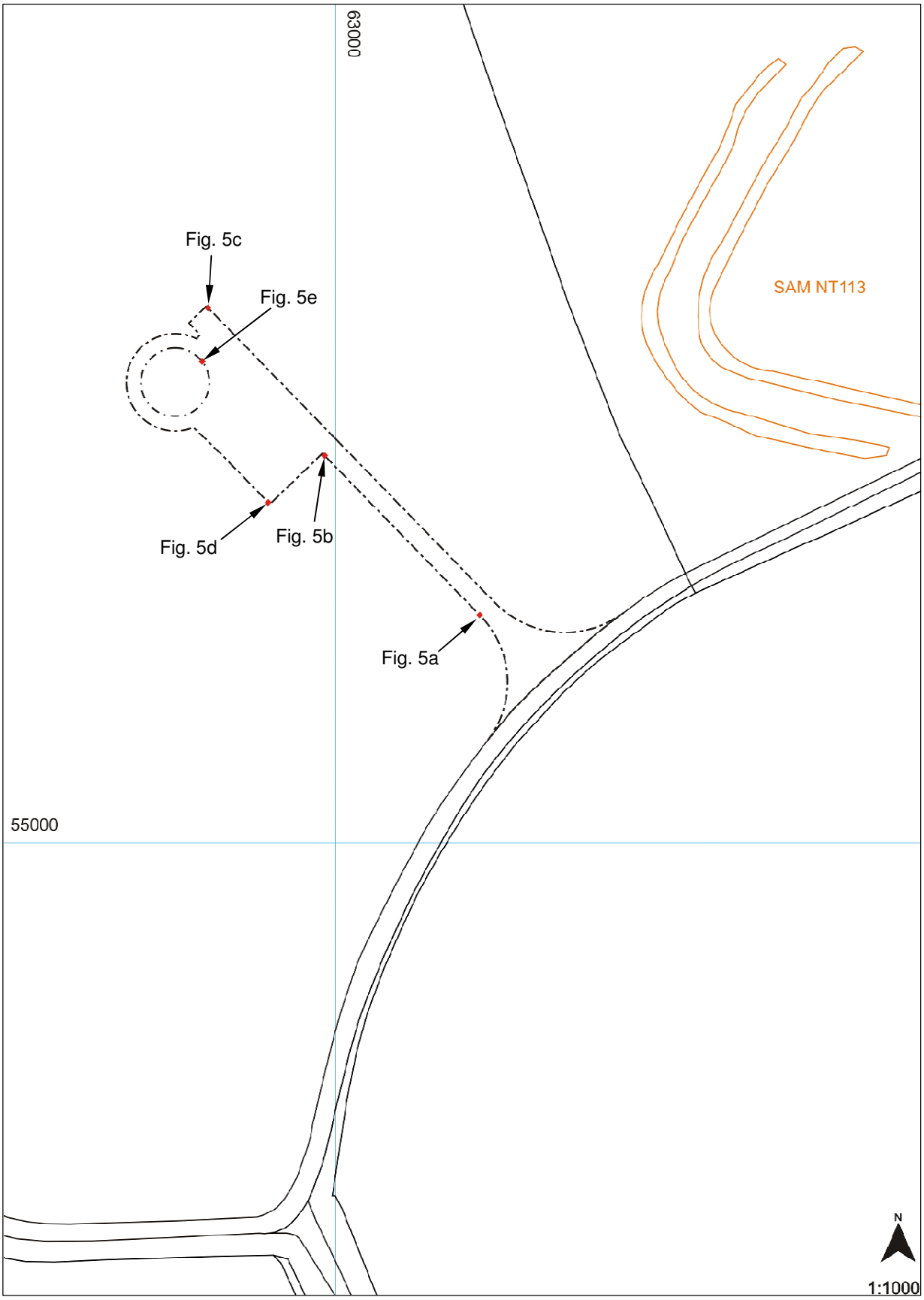



**Figure 4:** Plan of the monitored areas at scale 1:1000, showing the location of the sample sections.

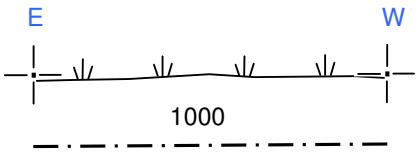



Figure 5a

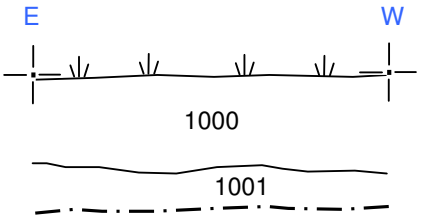



Figure 5d

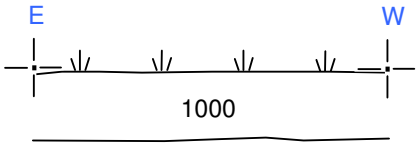



Figure 5b

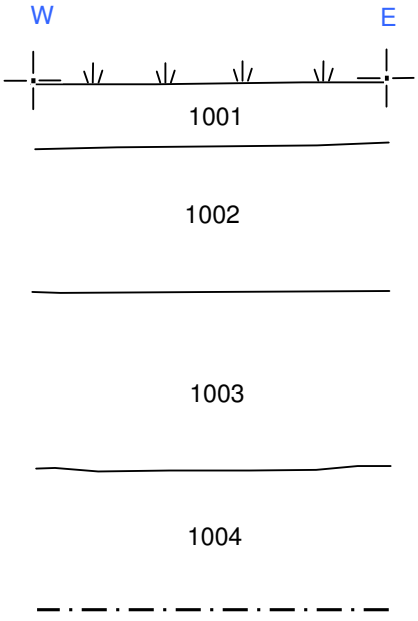



Figure 5e

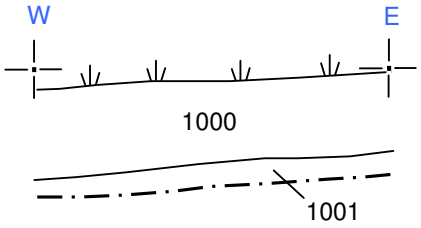



Figure 5c


**Figure 5:** Sample sections in Zones 1 and 2, at scale 1:20. Sections located on Figure 4.

## Appendix 1: Colour Plates

**Plate 1:** General shot during the machining of the W end of the access road, looking W, showing the position of the site, raised above the surrounding landscape.


**Plate 2:** Machine-stripping of the hard-standing area around the pylon base, looking SW, showing the exposed subsoil 1001.

**Plate 3:** Sample section at safe working depth in the pylon base pit, looking N, showing the sequence of natural deposits.

## Appendix 2: Context Summary

| Context No. | Type | Description |
|---|---|---|
| 1000 | Layer | Mid-brownish-grey compact clayey silt ploughsoil, 0.30m deep |
| 1001 | Layer | Mid-orange-brown compact clayey silt subsoil, 0.18m deep |
| 1002 | Layer | Mid-yellowish-brown sandy silt, 0.40m deep, probably natural |
| 1003 | Layer | Orange marly sand underlying layer 1002, 0.50m deep, probably natural |
| 1004 | Layer | Loose, weathered surface of bedrock |

## Appendix 3: OASIS summary