

# The Landscape Research Centre

Report covering an Archaeological Watching Brief undertaken ahead of  
the installation of two wind turbines at Woodhouse Farm, Flixton,  
North Yorkshire. August 2012

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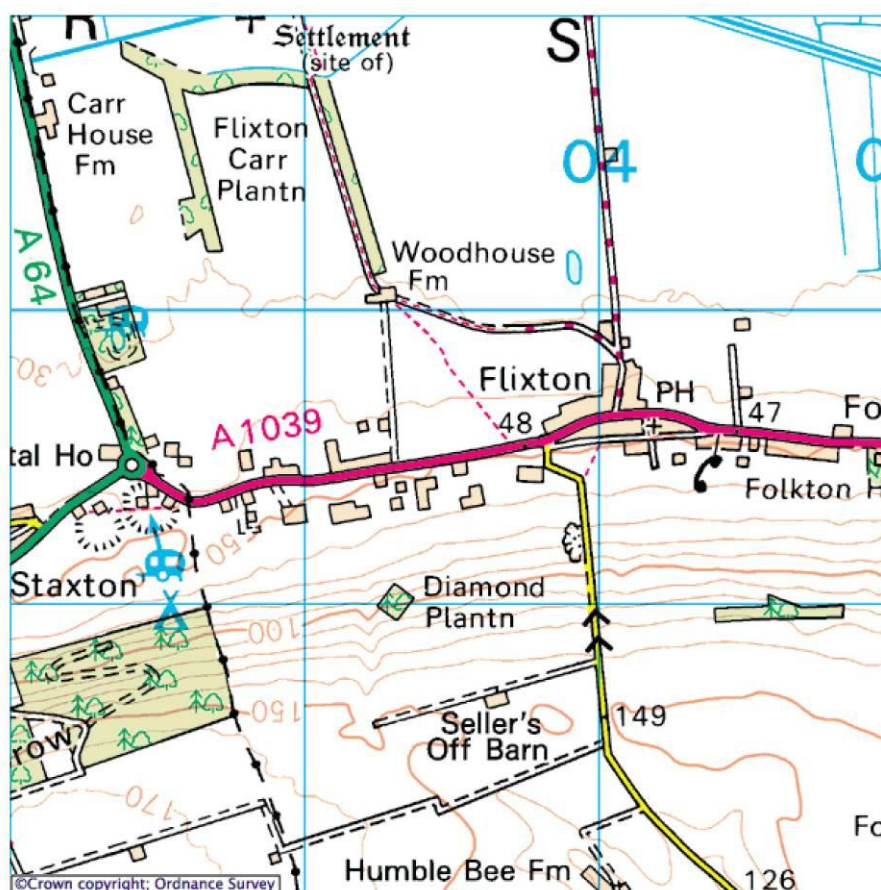
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## Summary

*A program of archaeological observation, investigation and recording was undertaken during the ground works at Woodhouse Farm, Flixton, North Yorkshire associated with the erection of two 30m wind turbines and excavation of service trenches to carry the cabling to link the turbines with the meter/transformer and national grid infrastructure. A total of six trenches were excavated in order to cover the impacted area, no archaeological features or deposits were found.*

## Introduction

The Landscape Research Centre was commissioned by Universal Green Energy Ltd, to undertake an archaeological program of observation, investigation and recording, in accordance with the planning conditions determined by Scarborough District Council and in accordance with a Written Scheme of Investigation submitted in July 2012 (Powlesland 2012). It complies with the guidance from Archaeology and Planning (PPS5), and Standard and Guidance for an Archaeological Watching Brief Institute for Field Archaeologists (1994, revised 2001).



**Figure 1: Woodhouse Farm, location (copy from [Streetmap.co.uk](http://Streetmap.co.uk)).**

This report serves as a short report on the result of the monitoring of all ground works at Woodhouse Farm, Flixton, North Yorkshire, related to the area disturbed by the installation of two 30m high wind turbine and service trenches to carry the cabling to link the turbine with the meter/transformer and national grid infrastructure.

The archaeological evaluation was carried out in order to characterize the archaeological potential of the development areas in accordance with the criteria set out within PPS5.

PPS5 (Planning Policy Statement 5) states that:

*"Where the loss of the whole or a material part of a heritage asset's significance is justified, local planning authorities should require the developer to record and advance understanding of the significance of the heritage asset before it is lost..."* (PPS5, HE 12.3).



**Figure 2: Site location, investigated area in red (picture from Google Earth)**

Woodhouse Farm is situated c.0.5km north of the A1039 and c. 0.8km north-west of the village of Flixton. The site lies at approximately 30m above Ordnance Datum (Figure 1).

The geology comprises; of Lacustrine deposit (Undifferentiated), and the bedrock is of; Gault formation and upper greensand formation (Undifferentiated) Mudstone, Sandstone and Limestone.

### **Archaeological Background**

A desktop study and geophysical survey undertaken in the area adjacent to the proposed wind turbine location indicate that although the locations are situated within a landscape of considerable international archaeological importance, the known areas of archaeological importance lie some distance away from the proposed development sites. The edge of the former Lake Flixton, which has been shown to have been the focus for extensive activity in the Late Palaeolithic and Early Mesolithic periods (between c.BC12.000 and BC 10.000) lies just over a hundred metres to the north.

The proposed turbine locations are adjacent to the ground covered through geophysical surveys (located as requested by the landowner); the results did not however reveal any obvious features of an archaeological nature and seem to indicate an area with limited

past activity. It should be noted that very early features are very rarely susceptible to recording through geophysical survey and thus the lack of visible features in the sample areas examined cannot be taken as a guaranteed reflection that there is no archaeology there; there is however no reason to suspect that there was, for instance, extensive domestic activity in the turbine locations from the Late Iron Age to Post Roman periods. Where evidence has been recorded indicating activity from the Roman period for instance this is located more than hundred metres further to the south.

Changes in the local topography arising from desiccation of buried peats particularly over the last three decades make any predictions regarding past activity based upon assessment of the local topography unreliable and it is not at all clear from the current topography what the environmental and ground water status of the area may have been in the past.

## **Aims and Objectives**

The aim of the archaeological investigation was to characterize and record deposits and features within the area of the proposed development. Specifically the evaluation sought to recover information relating to:

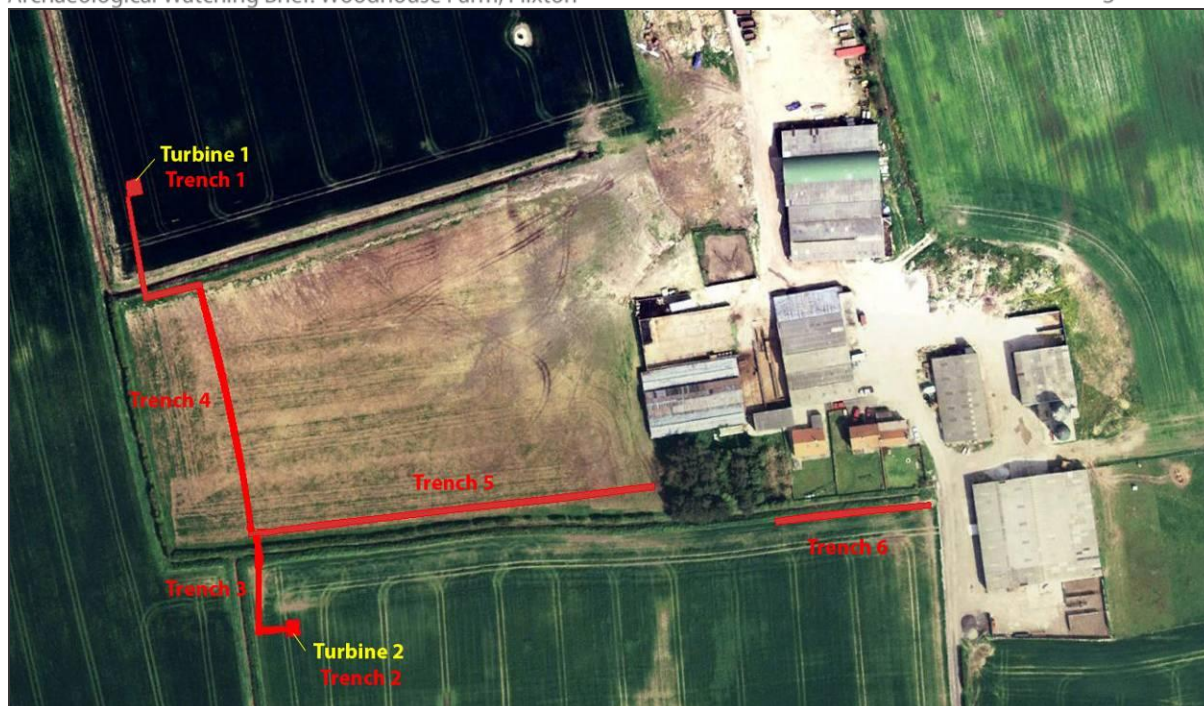
- the use of the site from the Late Palaeolithic to the Post-Medieval periods
- any evidence of material culture such as flint scatters reflecting activity in the area from earlier periods
- any palaeochannels or other areas of peat cut by the service trenches, that could contain significant organic remains which could include pollen, plant remains and worked timber
- the depth and sequence of deposits on the site in relation to predicted ground disturbance

The objectives were met by monitoring the stripping of top-soil and the excavation of the foundation trenches related to the proposed installation of the two turbines and related service trenches.

## **Methodology**

The two wind turbines and related service trenches were located to the west of Woodhouse Farm. Archaeological supervision of all ground-works was undertaken in order to map and record any archaeological remains encountered in the process.

The foundations and services trenches were machine-excavated using a mechanical excavator fitted with a toothless bucket, under direct archaeological supervision. The work was undertaken on the 16<sup>th</sup> July 2012.



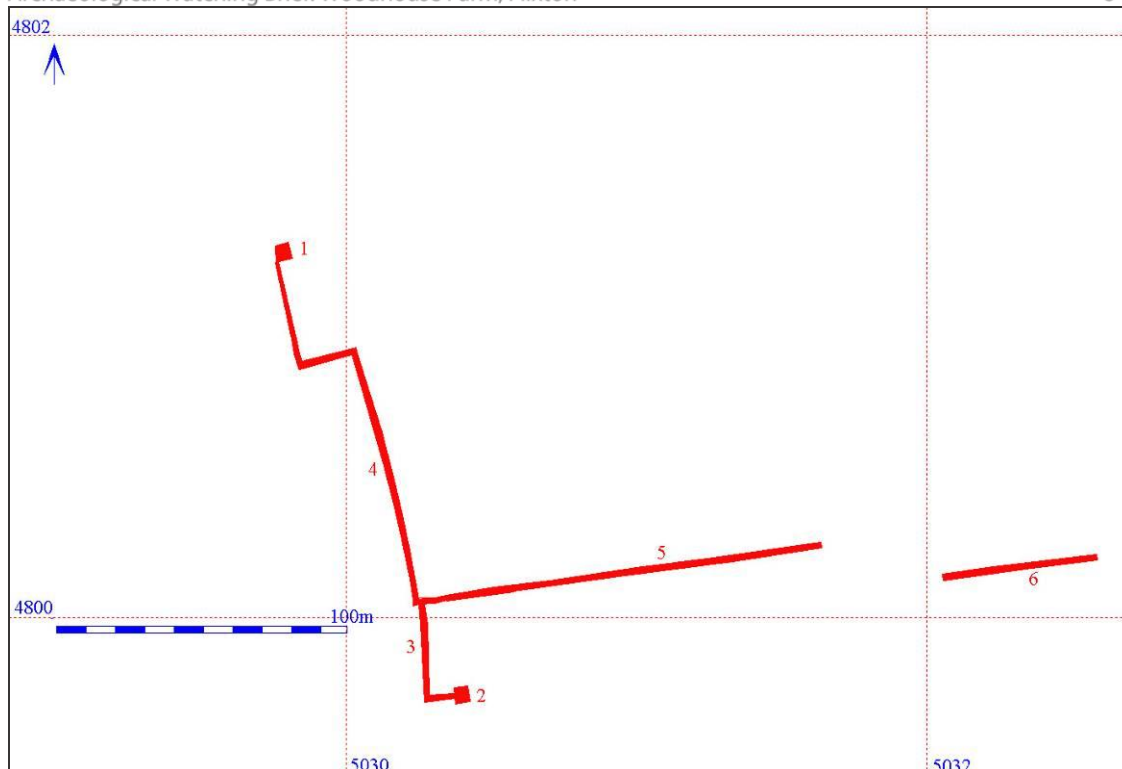
**Figure 3: Location of the two turbines and related cabling trenches**

A total of six trenches were excavated. Two trenches measuring 5m by 5m covered the area impacted by the turbines (trench 1 and 2), whereas four other trenches measuring 1.6m in width were excavated to cover the areas impacted by the cabling. The location of these areas is shown in Figure 3.

## Results

No archaeological deposits were identified in all areas.

The foundations and service trenches were excavated to a maximum depth of 0.40m, using a mechanical excavator fitted with a toothless bucket removing all plough soils and topsoils so that the presence of any archaeological features present could be observed. The combined area of all the ground-works covered an area of circa 852m<sup>2</sup>.



**Figure 4: Layout of the turbine areas (1 and 2), and related service trenches**

## Trench 1

Trench 1 measuring approximately 25m<sup>2</sup> and located at the north of the development it is on a flat arable land. This is to be the location of Turbine 1.

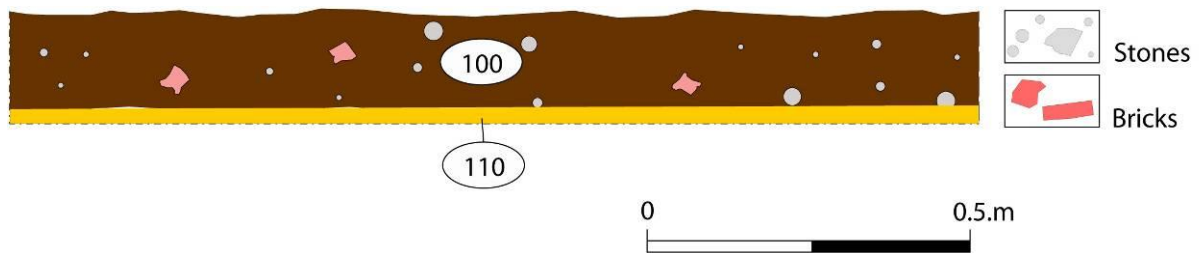


**Figure 5: Trench 1 (Turbine 1) area looking north**

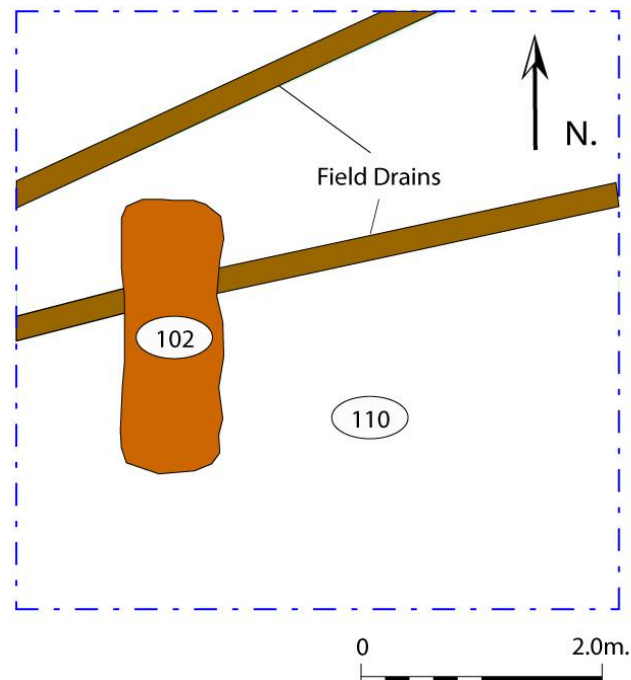
The upper deposit (top soil, context 100) a 0.40m thick layer of very dark brown sandy silt, containing sporadic fragments of bricks and small stones, has been interpreted as the

modern plough soil. The brick fragments may derive from night soiling or distribution of modern domestic waste in the fields.

The natural subsoil (110) was recorded at a depth of 0.40m below current ground level (Figure 7). It comprised a deposit of firm orange brown clay sandy material.



**Figure 6: East facing section, in trench 1 (Turbine 1)**



**Figure 7: Plan of trench 1**

The removal of top soil within trench 1 revealed the presence of three modern features; two field drains and an oval feature(102) which was very recent.

Pit 102, a sub-rectangular feature, measuring 0.80m in width and 2.10m in length, was seen in plan cutting one of the field drain, therefore making it of a very modern origin. This feature was backfilled by a mixture of topsoil and orange clay sandy natural deposit (context 101) which also contained un-decayed grass indicating that it was very recent perhaps a sondage designed to test the subsoil (Figure 5, Figure 7).



## Trench 2

Excavated to a depth of 0.40m this trench measuring 5m by 5m and covering an area of 25m<sup>2</sup> was located about 150m south to south–east of trench 1, in a flat arable field.



**Figure 8: Trench 2 (Turbine 2) area looking north**

In trench 2 the natural deposit (context 110) was reached at a depth of 0.40m immediately below the plough soil (context 100).

No archaeology was recorded within the limits of this trench.

## Trench 3 and trench 4

The area required for the positioning of the cable which links Turbine 1 and Turbine 2 was covered by trenches 3 and 4. These two trenches measuring about 200m in length and 1.5m in width were excavated to a depth of 0.40m (Figure 4).

The natural deposit (context 110) was directly sealed by the plough soil (context 100). Trenches 3 and 4 combined, covered an area of 382m<sup>2</sup>. The natural sandy clay subsoils were marked by modern plough scars showing that the subsoil had been truncated by plough damage and was cut by modern land drains. No peat deposits or other archaeological features were encountered within the trenches.



**Figure 9: Trench 3 looking north east**



**Figure 10: Trench 4 looking south**

## Trench 5 and trench 6

These service trenches running on an east to west direction will carry the cabling that links the turbines (via trenches 3 and 4) with the meter / transformer. Trenches 5 and 6 measuring 1.50m in width were excavated to a depth of 0.40m where the natural deposit (context 110) was exposed. Both trenches cover a combined area of 420m<sup>2</sup>.

It was not possible to monitor the trench linking trenches 5 and 6 as it was cut through a small wooded area located to the south west of Woodhouse Farm. Due to the density of the vegetation a narrow trench was to be excavated using a mechanical mini excavator fitted with a 0.30m wide toothless bucket minimising any subsurface archaeological impact (Figure 3).



**Figure 11: Trench 5 looking west**



**Figure 12: Trench 6 looking west**

## Discussion

With a total investigated area of 852m<sup>2</sup>, only few field drains and a modern feature were identified, cutting through the natural deposit in trench 1. The whole area showed a complete lack peat deposits and any cultural material. This watching brief revealed no cut archaeological features and nor were any stray finds recovered perhaps reflecting the nature of the mixed sandy clay subsoils which would have made a poor setting for domestic settlement in the past.

## Conclusion

The archaeological evaluation has recorded no archaeological deposits or features within any of the six trenches. More significantly the investigation has recorded that the deposit buried below the topsoil appears to be truncated and clean.

On the basis of the results of the monitoring the stripping and foundation trenching alone in these areas of the site are considered to have a very low archaeological potential.

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July 2012

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