Chapel Archaeology CIC

Archaeological Destop Study

Waverton: Elm Bank

For Community Interest

June, 2017

Archaeological Desktop Study

Waverton: Elm Bank

Client	Community benefit/interest
Location	NGR SJ 45140 63960 (345140 363960)
Site Code	
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1. Introduction

In '*Waverton - A History of its People and Places*'[1] there is a reference (pp98-99) to a possible Roman practice camp. Chapel Archaeology (CA) was asked to investigate this a little further.

2. Site Location

The site was initially located from an aerial photograph in 1994 by R. Phillpot and Jill Collens. It has been entered into the Cheshire Historic Environment Record (HER) as reference 2435/1[2] which states, "*Part of a sub-rectangular enclosure which has been cut by the A41 Whitchurch Road. It is visible as a cropmark and has curved corners and an entrance. The playing card shape of the cropmark suggests a Roman military function. It is one of a number of possible practice camps close to the legionary fortress at Chester. Practice camps are thought to have been built by Roman troops to train in earthwork construction.*" Figure 1 below (a copyright image) has been obtained from the Cheshire West and Chester interactive mapping site[3] showing the location and extent of the Scheduled Ancient Monument (SAM).

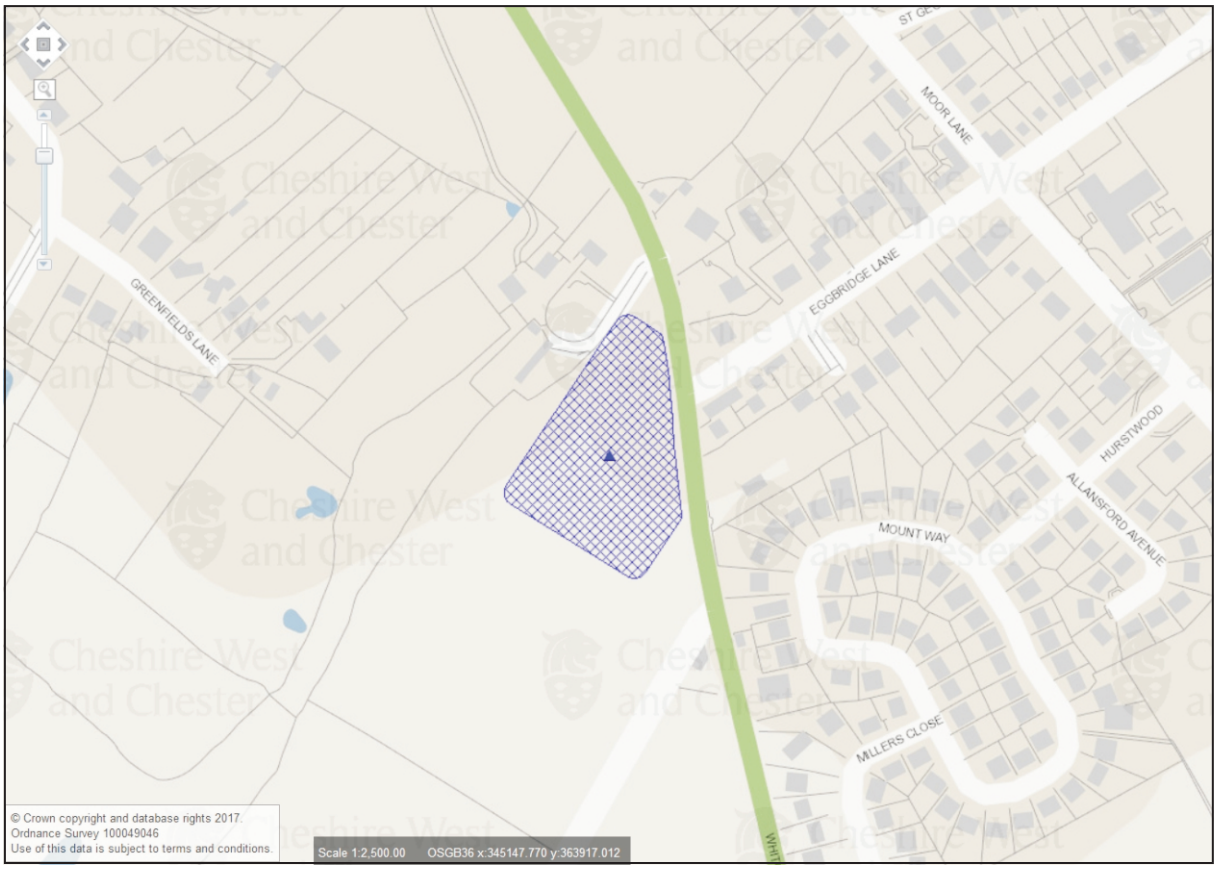


Figure 1: Location and Extent of the SAM

3. Mapping Data

The mapping data for the plots below comes from three different sources. The 'base' map (roads, water, woods and such like) comes from the Ordnance Survey open mapping data[4]. We fully acknowledge that the plots contain OS data © Crown copyright and database right 2017. The raw LiDAR data comes from the Open Government Data[5]. The section of the Tithe map comes from the Cheshire Archives and Local Studies (CALS)[6].

4. Raw Results

An initial review of the LiDAR plots (Figure 2 below) did not reveal any anomaly. However, manipulating the 3D image of the site showed that with careful choice of lighting and data interpretation algorithm, the trace of the feature was indeed visible.

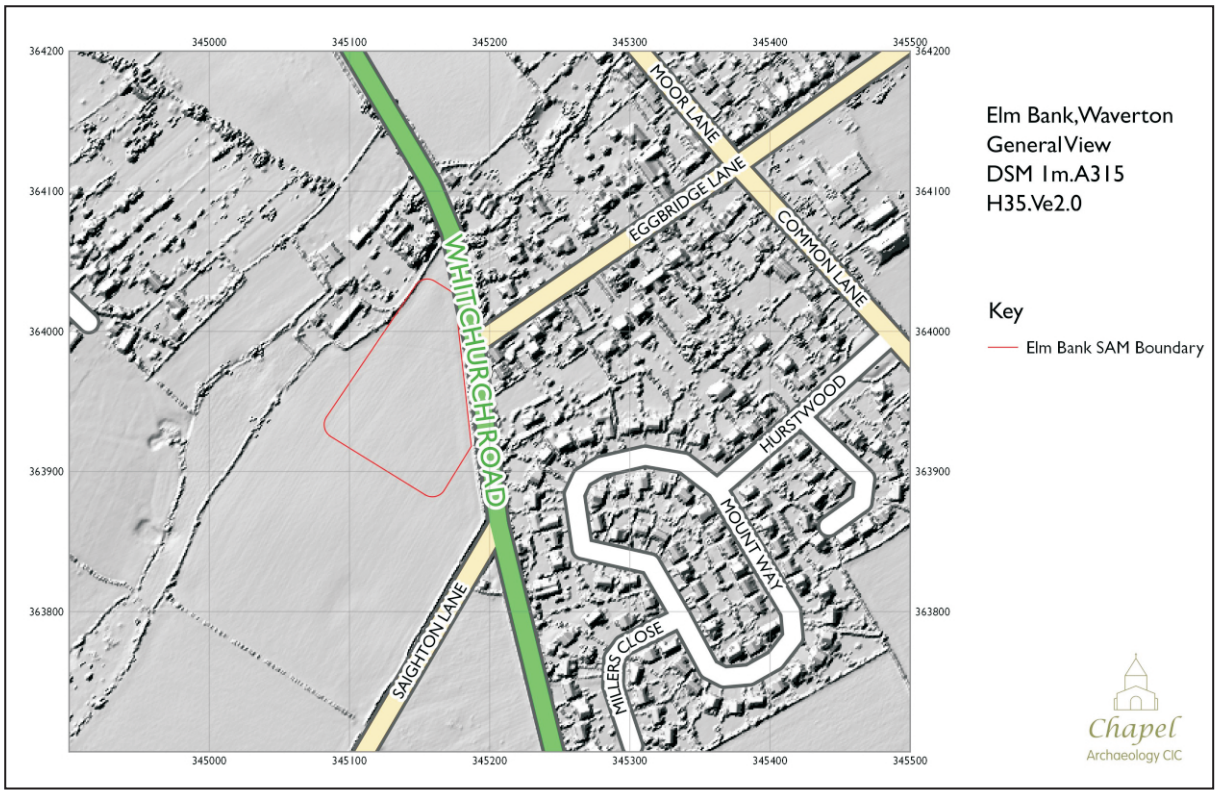


Figure 2: Initial LiDAR Mapping

Using the criteria obtained from the 3D image and applying them to the 2D image, the feature becomes visible (Figure 4 below).

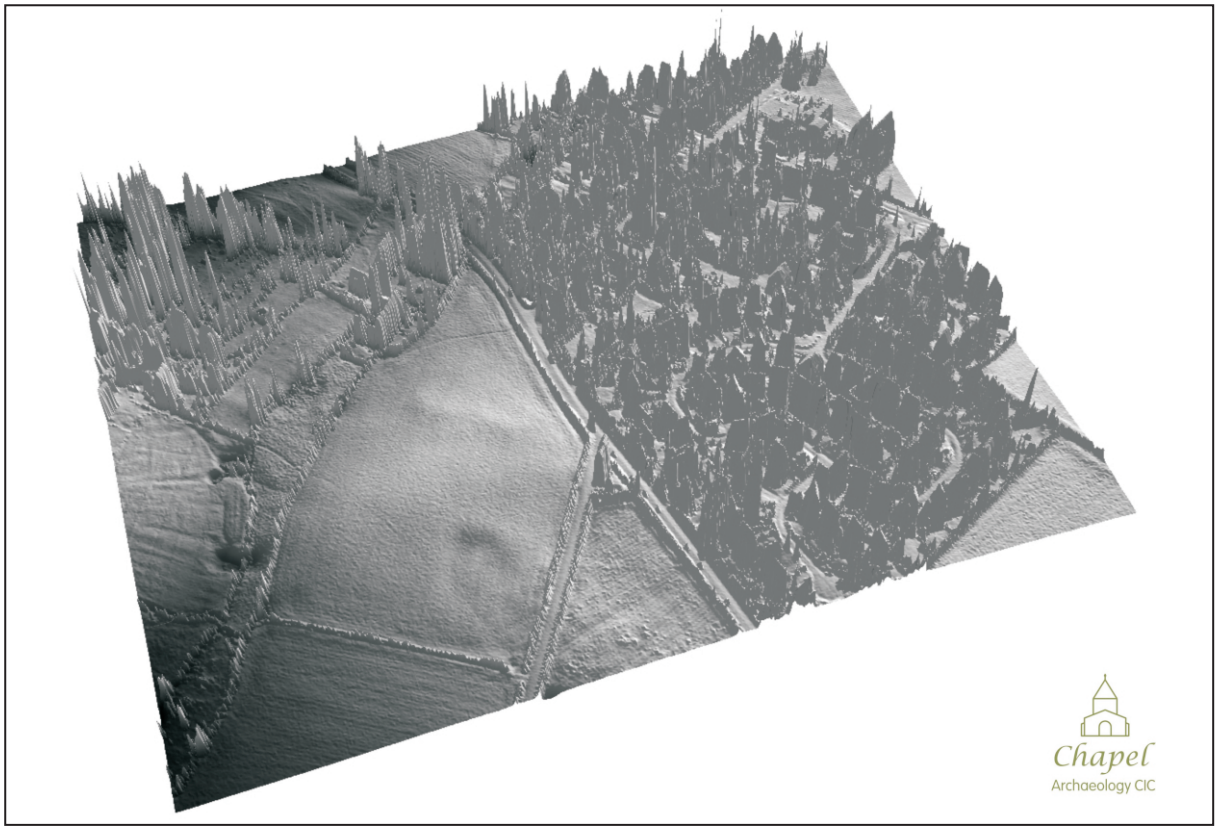


Figure 3: 3D LiDAR Image



Figure 4: Revised 2D LiDAR Image

5. Discussion

An investigation was carried out into the usual source of earlier information (the Tithe map). A section of the Waverton Township tithe map from c.1840 (Figure 5 below) shows the fields concerned were Plot References 302 and 303.

The apportionment data for those two fields are:

Plot Ref	Premises	Land Use	Acres	Roods	Perches	Owners	Occupiers
302	Little Millers Heath Field	Pasture	3	0	30	Marquis of Westminster	Joseph senior Salmon
303	Sand Hole Field	Pasture	5	3	13	Marquis of Westminster	Joseph senior Salmon

The names of these two fields give no indication of any earlier knowledge of this Roman feature.

The original aerial photograph is not readily available to the public so CA looked at modern aerial photographs to see if they show the feature. Initial findings from the Google site[7] showed nothing. The fields have a green crop on them which does not show any crop or parch marks.

A review of similar images from the Bing website[8] again showed the fields in crop without a sign. However, an alternative view (called 'Bird's eye'), has been taken without a crop on the field. This shows the feature reasonably clearly as in Figure 6 below. The colours on this image have been adjusted to enhance visibility of the feature.

This indicates that the feature is still present in the ground and can be seen by either aerial photography at suitable times of the year and/or by appropriately treated LiDAR data.



Figure 5: Section of Tithe Map [CALS EDT 135B/2]



Figure 6: An oblique aerial image © Microsoft 2017

6. References

1 Whittle, J (ed), Waverton - A History of its People and History, Waverton Parochial Church Council, December 2002.
2 http://rcplive.cheshire.gov.uk/SingleResult.aspx?uid=MCH1694
3 http://maps.cheshire.gov.uk/CWAC/interactivemapping/
4 https://www.ordnancesurvey.co.uk/business-and-government/help-and-support/products/opendata-getting-started.html
5 http://environment.data.gov.uk/ds/survey/index.jsp#/survey?grid=SJ46
6 http://maps.cheshire.gov.uk/tithemaps/TwinMaps.aspx?
7 https://www.google.co.uk/maps/@53.1695601,-2.822489,613m/data=!3m1!1e3
8 https://www.bing.com/maps/