



AN ARCHAEOLOGICAL EVALUATION

AT

POLLARDS NURSERIES, LAKE LANE,

BARNHAM, WEST SUSSEX

NGR SU 96687 04417

On behalf of

Eric Wall Ltd

MAY 2011

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PREPARED BY	Gwilym Williams
ILLUSTRATION BY	Andrej Čelovský & Gwilym Williams
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ENQUIRES TO	John Moore Heritage Services Hill View Woodperry Road Beckley Oxfordshire OX3 9UZ Tel/Fax 01865 358300 Email: info@jmheritageservices.co.uk
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Summary

John Moore Heritage Services carried out an evaluation at Pollards Nurseries, Lake Lane, Barnham, on the proposal site for a new glasshouse and associated buildings. Eight trenches were excavated within the proposal area. Two undated small features, some burnt flint and the remains of glasshouses blown down in the Great Storm of 1987 were present. Metal-detecting recovered a musket ball and small copper button.

1 INTRODUCTION

1.1 Site location (Figure 1)

The site is located on land at Pollards Nurseries, Lake Lane, Barnham, West Sussex (NGR SU 96687 04417). The site was rough ground to the north where the former glasshouse stood, and under cultivation to the south adjacent to the railway line. The site lies at c. 4m AOD. The surface geology is brickearth.

1.2 Planning Background

Planning permission (BN/17/10) was granted by Arun District Council, following advice given by Senior Archaeologist Strategic Planning Division (Local Development) West Sussex County Council for development of a glasshouse, water storage reservoir and boiler room with the following condition on the planning consent:

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority.

A *Written Scheme of Investigation* proposing the methodology was prepared by PRO Archaeology Services, indicating how the archaeological evaluation was to be carried out by John Moore Heritage Services to satisfy the requirements of the Brief. This was agreed with the Senior Archaeologist Strategic Planning Division (Local Development) West Sussex County Council.

1.3 Archaeological Background

The site was identified as having archaeological potential.

South of the site, beyond the railway line, Mesolithic flint tools (5532: MWS4135; SU 96400 04200) and Neolithic flint tools (5533: MWS4136; SU 96400 04200) were recovered during the 1920s and 1930s.

Barnham Mill (1474: MWS2422/ DWS1312; SU 96790 03964), built in 1790 is a Grade II listed building on Yapton Rd. During the Second World War it was used as an Home Guard observation post. The 18th century Luckham Cottage (DWS917) and 19th century Ivy Cottage (DWS1421) are both Grade II listed buildings. Located on the south side of Yapton Rd, between the two cottage was a brickfield (6033: MWS4708 SU 96500 04000) in use at the beginning of the 20th century.

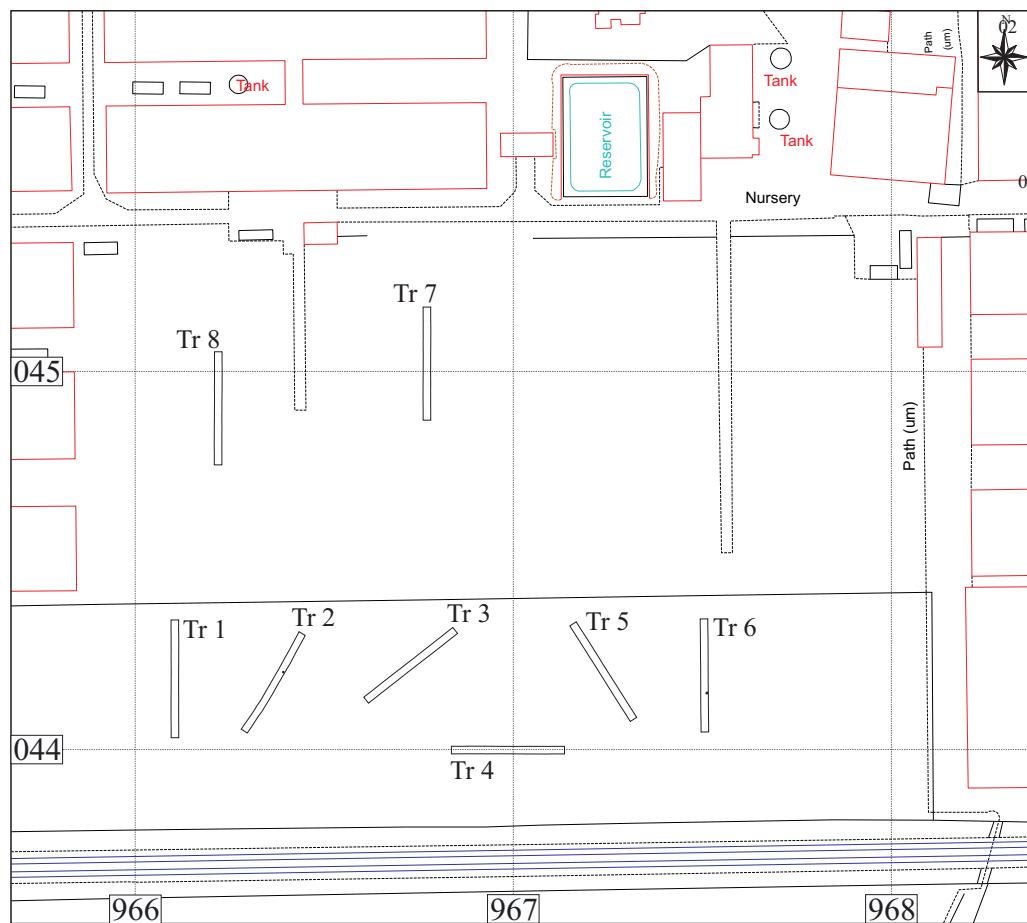
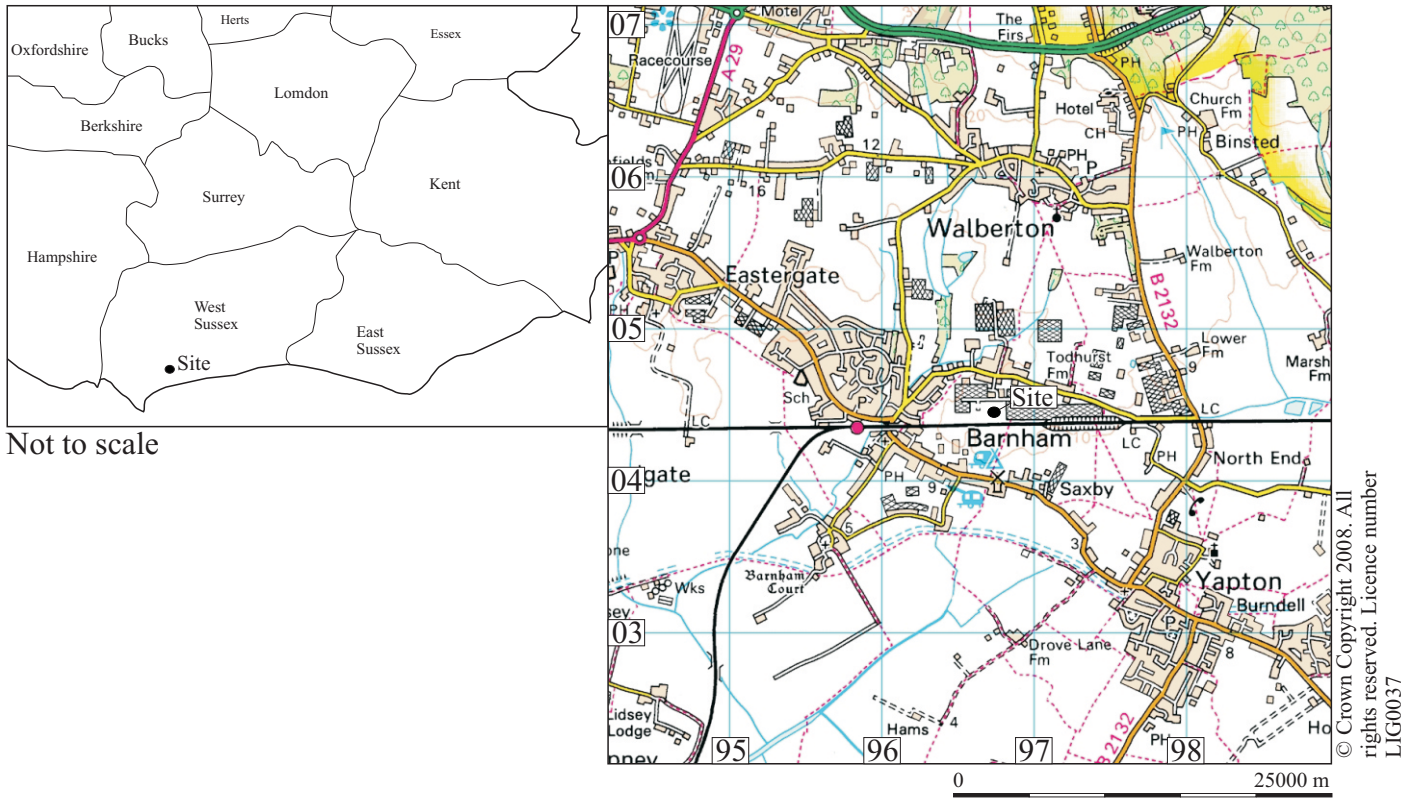


Figure 1. Site location

2 AIMS OF THE INVESTIGATION

The aims of the investigation as laid out in the Written Scheme of Investigation were as follows:

- to contribute to heritage knowledge of the area through the recording of the archaeological remains

Specific aims were to clarify

- o the nature of deposits and assess the potential for prehistoric remains from the Palaeolithic to the end of the prehistoric period
- o whether archaeological remains extend across the development site
- o the character date and quality of ancient remains and deposits
- o how they might be affected by the development of the site
- o whether particularly important remains should be preserved *in situ*
- o what options should be considered for mitigation.

3 STRATEGY

3.1 Research Design

In response to a Written Scheme of Investigation (WSI) prepared by PRO Archaeology Services, following a Brief issued by the Senior Archaeologist Strategic Planning Division (Local Development) West Sussex County Council, JMHS carried out the work, which comprised the excavation of eight trenches across the site (Fig. 1).

Site procedures for the investigation and recording of potential archaeological deposits and features were defined in the WSI agreed between PRO Archaeology Services and Senior Archaeologist Strategic Planning Division (Local Development) West Sussex County Council.

3.2 Methodology

The investigation involved the mechanical excavation of an initial six trenches, measuring 30m × 1.8m, with a 10-tonne excavator equipped with a ditching bucket, supplemented by hand investigation of the revealed deposits.

The Brief had originally requested 240m of trenching (6 × 40m), and the outstanding 60m was used in the northern part of the site for a further two trenches measuring 30m × 1.8m, oriented north/south between the piling-pits for the new glasshouse.

Site procedures carried out followed IfA guidelines. The work was carried out in accordance with the standards specified by the Institute of Field Archaeologists (1994) and the principles of MAP2 (English Heritage 1991).

4 RESULTS

4.1 Field Results

All deposits and features were assigned individual context numbers during the evaluation. For ease of reporting, due to the similarity of deposit sequence across the site, all individual trench numbers for common deposits are not reported below (however, see Appendix 1 for details of the deposits). Context numbers without brackets indicate features i.e. pit cuts; while numbers in () show feature fills or deposits of material.

All Trenches (Fig. 1, 2, 3 & 4)

All trenches measured 30m, or marginally more, in length and were 1.8m wide. The trenches were excavated to the top of the natural brickearth (3). In Trench 1 (Fig. 2 & 3), three fragments of burnt flint, weighing 101 g, were recovered from the top of the brickearth (3). This was undoubtedly pressed into the top of the natural during box-scraping of the field previously. In both Trenches 2 and 6 (Fig. 2 & 4) a single example of a small pit or posthole features were present cut into the brickearth. In Trench 2 a small pit or posthole 2/04, measuring 0.4m in diameter and 0.08m deep, filled with mid brown sandy clay (2/05), was present midway along the trench. In Trench 6 a small pit or posthole 6/04, also measuring 0.4m in diameter and 0.12m deep, filled with mid brown sandy clay (6/05), was present. No finds were recovered from either feature.

The brickearth was overlain by an interface of brickearth and topsoil (2), which measured *c.* 0.1m thick. Topsoil (1) sealed this deposit. The topsoil was not *in situ*, and had been box-scraped and redistributed across the site to level up the proposal area. As a consequence, much modern farm-related metal, clips and screws in iron, aluminium and copper alloy, as well as in the northern field, glass and rubber window seals had been introduced into the topsoil, as observed during machining. None of this material was retained. A copper button and a single musket ball from the topsoil were retained from Trenches 2 and 3. Furthermore, to the west, where the natural brickearth horizon dropped (see Table 1), the redistributed topsoil was up to 0.5m thick, whereas to the east, it was in the order of 0.1m thick. In the north field the depth of topsoil was *c.* 0.2m thick.

Trenches 7 and 8 (Fig. 2 & 4) in the northern field were characterised by the presence of the glasshouse which previously stood here until the Great Storm of 1987. Concrete footings, pile-holes and drainage trenches were observed here, in addition to large quantities of glass and window seals being present in the topsoil (1).

The levels (Table 1) taken on each end of the trenches, as well as on the base of the features present, indicate that the site was generally level at modern ground level, but that previously, the land had clearly tipped to the west and to the south, although to a lesser extent. Discussion with the applicant indicated that the site had been box-scraped in the past, and that following this, redistribution of the soil had levelled up the site to a roughly flat field.

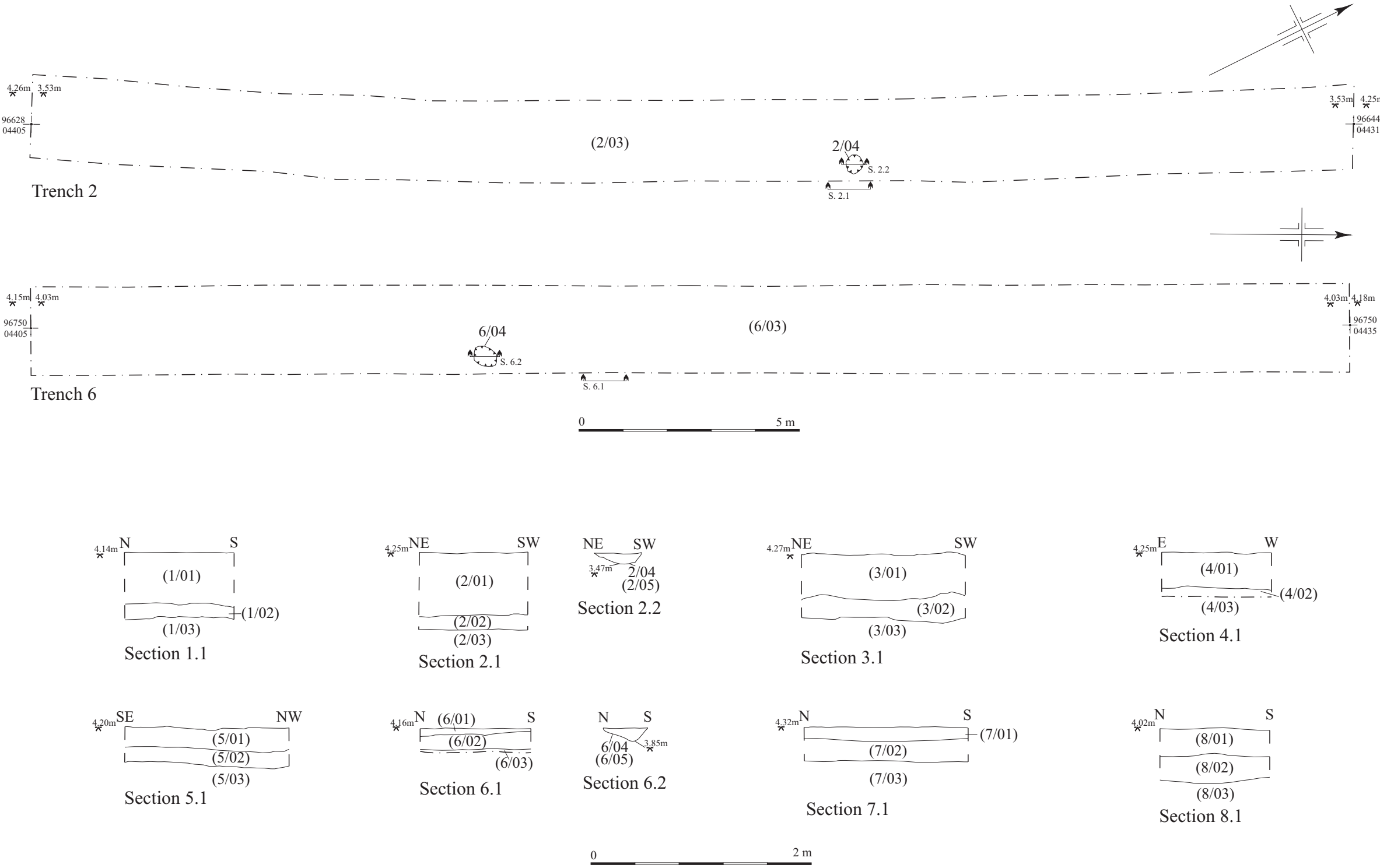


Figure 2. Plan of Trench 2 & 6; Sections all trenches



Trench 1 looking North



Trench 2 looking Northeast



Feature 2/04



Trench 3 looking Northeast



Trench 4 looking East

Figure 3. Photographs of Trenches 1 to 4 and Feature 2/04



Trench 5 looking Northwest



Trench 6 looking North



Feature 6/04



Trench 7 looking North



Trench 8 looking North

Figure 4. Photographs of Trenches 5 to 8 and Feature 6/04

Tr 1	m. AOD	Tr 5	m. AOD
South top	4.12	Southeast top	4.15
South base	3.55	Southeast base	3.95
North top	4.17	Northwest top	4.26
North base	3.50	Northwest base	3.96
Tr 2		Tr 6	
Southwest top	4.26	South top	4.15
Southwest base	3.53	South base	4.03
2/05 (base)	3.47	6/05 (base)	3.85
Northeast top	4.25	North top	4.18
Northeast base	3.53	North base	
Tr 3		Tr 7	
Southwest top	4.25	South top	4.29
Southwest base	3.62	South base	3.79
Northeast top	4.30	North top	4.35
Northeast base	3.73	North base	3.89
Tr 4		Tr 8	
West top	4.29	South top	4.02
West base	3.80	South base	3.80
East top	4.20	North top	3.87
East base	3.89	North base	4.03

Table 1. Trench levels across site

4.2 Reliability of Techniques and Results

The reliability of results is considered to be good. The archaeological evaluation took place in clement conditions and was monitored by John Mills, Senior Archaeologist Strategic Planning Division (Local Development) West Sussex County Council.

5 FINDS AND ENVIRONMENTAL REMAINS

5.1 Finds

5.1.1 Flint by Juan Moreno and Gwilym Williams

The flint recovered during the evaluation was characteristically Mesolithic to early Neolithic, in particular a bi-directional 'core' found on the surface between Trenches 2 and 3. A further two flakes were found on the surface on the western side of the evaluation area. A single flint was recovered from the topsoil of Trench 1 after machining. A single flake was recovered from the interface deposit (2) between the topsoil and natural brickearth from Trench 5, and some burnt flint was also recovered from the same deposit from Trenches 1 and 3.

The topsoil (1) and interface (2) deposit had been subject to redistribution after the site had been box-scraped and the topsoil subsequently spread out to level up the field in the past. Consequently, it is not possible to assign any great significance to the finds of flint, as the ultimate provenance is unknown and the flints were recovered as *ex situ* material.

The site was located north of two findspots which have yielded both Mesolithic and Neolithic tools. Although no tools were recovered during the evaluation the limited flint recovered is entirely in keeping with material found in the general vicinity.

Context	Type	Flint Description
U/S	Flint core	The flint 'core' contains two striking platforms at opposing ends. There are a few negative scars visible where two bladelets have been removed from one end and one from the opposing end. There is cortical covering visible on the non removal side of the object. The flint is dark grey in colour and shows signs of edge battering from being rolled around in the soil.
U/S	Broken flake	The flake is broken at the proximal end where bulb and striking platform would have been located. The left ventral side of the flake is also missing. Evidence for sequential flake and/or bladelet detachment is present on the dorsal side through the presence of negative removal scars. The flint is dark grey with a lighter marled white colouring. There is some light chipping along the right ventral edge but this is most likely the result of movement within the topsoil. There is no visible retouch located on the flake.
U/S	Flake	The bulb located proximally on the ventral side is fairly prominent with the striking platform forming a fairly thick butt. There is no visible retouch along the edges. The flint colour is very light grey to off white and contains minute light white specking.
(1/01)	Primary flake	The dorsal portion of the flake is covered in cortex. The ventral side of the flake shows transverse trimming along the striking platform with a negative flake removal scar over and thinning the bulb of percussion. There is sheen and patina covering the ventral side. The flint has an orange brown colouring (ferrous). There is slight retouch along the right dorsal and proximal edge nearest the butt.
(1/02)	Discoloured/ heated flint (× 3)	Flint consists of three pieces, palm sized to small. Pieces are a light grey to off white and two contain a small amount of cortical covering. All three appear "fire" or heat cracked, as a result the flint pieces are highly discoloured and contain sharp angular breaks. 101 g
(3/02)	Discoloured/ heated flint (× 1)	1 fragment fire-cracked flint from the interface deposit. 56 g
(5/02)	Broken flake	The flake is broken along the length of the right ventral side. The struck flake resulted in a hinge termination located at the distal ventral end. Evidence for sequential flake and/or bladelet detachment is present on the dorsal side through the presence of negative removal scars. The flint is dark to deep grey in colour and has a translucent left edge. There is no visible retouch located on the flake.

5.1.2 Tile

The single fragment of tile was examined by eye without magnification. It is typically post-medieval roof tile. The small fragment recovered is too small a fragment to comment further upon.

Context	Weight (g)	Description
(3/02)	40	Dark red clay; sandy base. Reduced core. 7mm thick

5.1.3 Metal-detected finds

The spoil heaps and trenches were metal-detected by Mr. Séumus Lavery of Bognor Regis on Friday 7th May, two days after the trenches were opened. He recovered a single musket ball from the topsoil in Trench 3 and a button from topsoil from Trench 2; the remaining finds he made were clearly related to the site's use as a nursery and farm. As the topsoil had been redistributed around the site, none of these finds were retained, with the exception of the musket ball and button.

Context	Weight (g)	Description
(2/01)	2	Cu alloy. 9mm diameter. Button
(3/01)	14	Lead, irregular sphere. c. 10mm diameter. Possible musket ball

5.2 Environmental Remains

No environmental samples were taken as the potential of the deposits was not felt to be sufficient to warrant sampling. No bone was recovered during the evaluation.

6 DISCUSSION & CONCLUSIONS

Trenches 2 and 6 yielded archaeological features, although the postholes or small pits from Trenches 2 and 6 were undated. Flint recovered from Trenches 1, 3 and 5 and from the surface indicate that the Mesolithic/Neolithic activity evidenced south of the railway line may well have extended as far north as the evaluation site. The paucity of features suggests that it was unlikely to have been significant. Furthermore, the redistribution of soil across the site raises the question as to whether the flints are indeed from the evaluation site, or whether they were imported during works. The burnt flint and flake recovered from the interface are the only sure flints from the site.

A button and a single musket ball were recovered from topsoil from Trenches 2 and 3 during metal-detecting. However, due to the topsoil having been redistributed within the site, the significance of these finds is not felt to be great.

Trenches 7 and 8 yielded clear evidence for the location of the previous glasshouse. This is not illustrated, apart from the photographs, but was recorded during the evaluation and is in the archive.

The evaluation can be said to have achieved the aims of the investigation by establishing that the post-Holocene layers had been box-scraped, and that while archaeology may well have been present in the past, the evidence was much reduced and that the evidence points towards activity on the west side of the development area, but that truncation means that the evidence is skewed. The character and date of the remains is unknown, but appears to have comprised Mesolithic to Neolithic flints in addition to undated features. Other specific aims are not relevant.

7 BIBLIOGRAPHY

English Heritage 1991 *Management of Archaeological Projects*

English Heritage 2006 *Management of Research Projects in the Historic Environment*

Institute of Field Archaeologists, 1994 *Standard and Guidance for Archaeological Field Evaluations*

Appendix 1: Archaeological Context Inventory

Trench	Context	Type	Description	L (m)	B (m)	D(m)	Finds	Date	Interpretation
Trench 1									
	(1/01)	Layer	Mid grey brown sandy silt	>32	>1.8	c. 0.5		Modern	Topsoil
	(1/02)	Layer	Grey brown to red topsoil natural mix	>32	>1.8	c. 0.1		Modern	Interface
	(1/03)	Layer	Sticky orange/red clay silt	>32	>1.8	Unk.		Unk.	Natural brickearth
Trench 2									
	(2/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.6		Modern	Topsoil
	(2/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.1		Modern	Interface
	(2/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.		Unk.	Natural brickearth
	2/04	Cut	Subcircular, shallow cut	0.4	0.4	0.08		Unk	Posthole/small pit
	(2/05)	Fill	Mid brown sandy clay	0.4	0.4	0.08		Unk	Fill of posthole/small pit
Trench 3									
	(3/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.35		Modern	Topsoil
	(3/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.1		Modern	Interface
	(3/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.		Unk.	Natural brickearth
Trench 4									
	(4/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.12		Modern	Topsoil
	(4/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.18		Modern	Interface
	(4/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.		Unk.	Natural brickearth
Trench 5									
	(5/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.09		Modern	Topsoil
	(5/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.12		Modern	Interface
	(5/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.		Unk.	Natural brickearth
Trench 6									
	(6/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.08		Modern	Topsoil
	(6/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.1		Modern	Interface
	(6/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.		Unk.	Natural brickearth
	6/04	Cut	Subcircular, shallow cut	0.4	0.4	0.12		Unk	Posthole/small pit
	(6/05)	Fill	Mid brown sandy clay; occasional charcoal	0.4	0.4	0.12		Unk	Fill of posthole/small pit

Trench	Context	Type	Description	Depth (m)	Width (m)	Length (m)	Finds	Date	Interpretation
Trench 7									
	(7/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.12	none	Modern	Car park surface
	(7/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.18	none	Modern	Make-up associated with demolition
	(7/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.	none	Unk.	Natural
Trench 8									
	(8/01)	Layer	Mid grey brown sandy silt	>30	>1.8	c. 0.19	none	Modern	Car park surface
	(8/02)	Layer	Grey brown to red topsoil natural mix	>30	>1.8	c. 0.21	none	Modern	Make-up associated with demolition
	(8/03)	Layer	Sticky orange/red clay silt	>30	>1.8	Unk.	none	Unk.	Natural