

**BUILDING 9, GLAXOSMITHKLINE,
WARE, HERTFORDSHIRE**

AN ARCHAEOLOGICAL EVALUATION

ARCHAEOLOGICAL SOLUTIONS LTD

**BUILDING 9, GLAXOSMITHKLINE,
WARE, HERTFORDSHIRE**

AN ARCHAEOLOGICAL EVALUATION

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NGR: TL 34750 14410	Report No. 2154
District: East Herts	Site Code: AS 1026
Approved: Claire Halpin	Project No. 2659
Signed:	Date: December 2006

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OASIS SUMMARY SHEET

Project details			
Project name	<i>Building 9, GlaxoSmithKline, Ware, Hertfordshire</i>		
Project description (250 words)	<p><i>In November 2006 Archaeological Solutions Limited (AS) carried out an archaeological trial trench evaluation on the site of proposed Building 9, GlaxoSmithKline(GSK), Ware, Hertfordshire (NGR TL 34750 14410). The evaluation was commissioned by GlaxoSmithKline prior to the redevelopment of the site by the construction of a new research and development building. The archaeological evaluation followed a desk-based assessment of the site also carried out by AS (Williams 2006).</i></p> <p><i>No archaeological features were identified during the evaluation. Natural deposits of alluvium and riverine gravels were encountered buried under several layers of deep made ground. No former topsoils or B horizons were identified, suggesting the ground surface had previously been stripped away before the consolidation of the site with the made ground deposits. It is possible that the site was truncated, either by quarrying or other works, during the late 19th century when OS maps label the area as "Brick Field" and then "Brick Works". However, it is more likely that the truncation of the site occurred during the construction of the Allen and Hanbury's factory in 1899 and thereafter during further development of the site in the late 1960s and early 1970s by Glaxo, and again in the 1980s and 1990s by GlaxoSmithKline.</i></p>		
Project dates (fieldwork)	<i>8-27/11/2006</i>		
Previous work (Y/N/?)	<i>Y(DBA)</i>	Future work (Y/N/?)	<i>TBA</i>
P. number	<i>P2659</i>	Site code	<i>ASI026</i>
Type of project	<i>Trial Trench Evaluation</i>		
Site status			
Current land use	<i>Tarmac hard-standing in GSK complex</i>		
Planned development	<i>New building</i>		
Main features (+dates)	<i>Modern made ground deposits</i>		
Significant finds (+dates)	<i>None</i>		
Project location			
County/ District/ Parish	<i>Hertfordshire</i>	<i>East Hertfordshire</i>	<i>Ware Rural</i>
HER/ SMR for area	<i>HCC SMR</i>		
Post code (if known)			
Area of site	<i>1.3ha</i>		
NGR	<i>TL 3476 1440</i>		
Height AOD (max/ min)	<i>c.36.50 – 37.50m AOD</i>		
Project creators			
Brief issued by	<i>HCC Historic Environment Unit</i>		
Project supervisor/s (PO)	<i>C. Hallybone</i>		
Funded by	<i>GlaxoSmithKline</i>		
Full title	<i>Building 9, GSK, Ware, Hertfordshire. An Archaeological Desk-Based Assessment</i>		
Authors	<i>C Hallybone & P. Weston</i>		
Report no.	<i>2154</i>		
Date (of report)	<i>December 2006</i>		

BUILDING 9, GLAXOSMITHKLINE, WARE, HERTFORDSHIRE AN ARCHAEOLOGICAL EVALUATION

SUMMARY

In November 2006 Archaeological Solutions Limited (AS) carried out an archaeological trial trench evaluation on the site of proposed Building 9, GlaxoSmithKline, Ware, Hertfordshire (NGR TL 34750 14410). The site is located in the town of Ware, Hertfordshire, some 30 km north of central London and 4 km north-east of Hertford.

A previous archaeological desk-based assessment (Williams 2006) revealed that the site lies on the periphery of the Roman settlement at Ware, which straddles Ermine Street. Previous excavations at GSK have investigated the Roman vicus, or small town, which grew up along the Roman road of Ermine Street in the years following the Conquest of 43 AD. The settlement appears to have comprised industrial and domestic activity together with a possible shrine or temple sited on the course of the road and extending for some way into back plots. The concentration of Roman burials, on the east and west sides of the small town delineate the limits of the settlement. Numerous investigations at GlaxoSmithKline have helped define the Roman settlement, as well as locating more limited evidence for prehistoric activity from the Mesolithic, Neolithic and Iron Age periods. An evaluation carried out to the east of this site revealed a low-density prehistoric features, whilst an evaluation to the west of the development area revealed possible Roman layers, and buildings associated with the 19th-20th century brickworks.

No archaeological features were identified during the evaluation. Natural deposits of alluvium and riverine gravels were encountered buried under several layers of made ground. No former topsoils or B horizons were identified suggesting the ground surface had been previously been stripped away before the deposition of the made ground deposits which consolidate the site. It is possible that the site was truncated, either by quarrying or other works, during the late 19th century when OS maps label the area as “Brick Field” and then “Brick Works”. However, it is more likely that the truncation of the site occurred during the construction of the Allen and Hanbury’s factory in 1899 and then during further development of the site in the late 1960s and early 1970s by Glaxo, and again in the 1980s and 1990s by GlaxoSmithKline.

1 INTRODUCTION

1.1 In November 2006, Archaeological Solutions Limited (AS), carried out an archaeological trial trench evaluation on the site of proposed Building 9, GlaxoSmithKline (GSK), Ware, Hertfordshire (NGR TL 34750 14410; Figs. 1 & 2). The evaluation was commissioned by GlaxoSmithKline prior to the redevelopment of the site by the construction of a proposed new research and development building (planning ref. 3/00/000). The archaeological evaluation followed an archaeological desk-based assessment of the site also carried out by AS (Williams 2006).

1.2 The evaluation was conducted in accordance with a brief issued by the Hertfordshire County Council Historic Environment Unit (2006), and a specification prepared by AS (dated 11/08/06). The project followed the procedures outlined in the Institute of Field Archaeologists' *Code of Conduct, Standard and Guidance for Archaeological Desk-Based Assessments* (revised 2001) and *Standard and Guidance for Archaeological Field Evaluation* (revised 2001). It also adhered to the relevant sections of *Standards for Field Archaeology in the East of England* (Gurney 2003).

1.3 The aim of the evaluation was to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. In particular, it was important to establish the presence or absence of any remains relating to the Roman, medieval or earlier settlement of the area. It was also important to understand the level of truncation on the site and also to ascertain whether it was possible to mitigate the development proposals to accommodate any surviving archaeological remains within the area of proposed redevelopment.

2 DESCRIPTION OF THE SITE

2.1 The site is located in the town of Ware, Hertfordshire, some 30 km north of central London and 4 km north-east of Hertford (Fig. 1). It is located in the south-western sector of Ware (centred NGR TL 3476 1440), on the western edge of the GSK complex, north of the river Lea (Fig. 2).

2.2 The site is currently occupied by the GlaxoSmithKline premises. This complex is bounded by Park Road to the north and Priory Street and the river to the south. Domestic housing delineates the eastern boundary. The proposed development is a roughly rectangular building, measuring 1.3 ha, located directly to the east of Westfields, c. 60m south of Park Road and to the west of the M building. The site currently comprises an area of tarmac hard-standing, and it extends slightly beyond the current boundary with the adjacent car park to the west.

3 TOPOGRAPHY, GEOLOGY AND SOILS

3.1 The town of Ware is located on the north bank of the river Lea, about 30 km north of central London. The site of the GlaxoSmithKline complex lies to the south of the main town, on the lower slopes of the Lea Valley flood plain, at c. 35 m AOD. The evaluation site is on land that rises very gently away from the Lea, from south to north, between c.36.50m AOD and 37.50m AOD. The river Rib flows into the river Lea to the west of the town, while the Stort and Ash join further downstream. Two former watercourses, The 'Upper Bourne' and the 'Lower Bourne' entered the river Lea near Ware Priory, south-east of the site (Kiln and Partridge 1995).

3.2 The area is underlain by Cretaceous Upper Chalk, followed by Eocene London Clay. These are capped by deposits of gravel, brickearth and alluvium (the latter in particular close to the Lea, with its wide former floodplain). The site is situated on the boundary of the chalky till-derived soils of the Melford association and

the riverine alluvial soils of the Fladbury 1 association (Soil Survey of England and Wales 1983). Melford Soils are described as deep, well-drained fine loamy over clayey, coarse loamy over clayey and fine loamy soils, some with calcareous clayey subsoils. The alluvial soils of the Fladbury 1 association are described as stoneless clayey soils, in places calcareous, variably affected by groundwater, and often at risk of flooding.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A archaeological desk-based assessment of the site was carried out by AS prior to the excavation of the evaluation trenches (Williams 2006).

In summary:

- Mesolithic and Neolithic flint scatters were found to the south-east of the site in the 1980s during work at Glaxo (now GSK). Other Mesolithic features and finds were uncovered in the 1970s at a location north-east of the site. Such findings would be of regional importance, and if associated with potential structural evidence (such as windbreaks and gullies) would be of national importance owing to their rarity. Mesolithic sites, however, tend to be small and discrete in nature, and it is unlikely that the evidence relating to this period extends largely over the GSK premises.
- Evidence for later prehistoric periods has also been located in the vicinity of the site. Cropmarks relating to a ring-ditch were identified to the north of the assessment area. Directly east of the site, evidence for Neolithic and Bronze Age occupation was identified during a 1993 archaeological evaluation of the Amenity Building. The potential for Iron Age remains exists since numerous ditches dating to this period have been noted in the vicinity of this site, though the main area of Iron Age occupation in Ware lies further to the east towards the town.
- From the collation of the archaeological work that has been undertaken in the vicinity in recent decades, the site appears to lie on the extreme periphery of the Roman town, to the west of the centre which straddled Ermine Street below the manufacturing site to the east. This may be inferred from the presence of several Roman burial find spots (HER 9151, 9152, 9153, 9157 & 9159) within the GSK site, as these are normally found along the edge of Roman roads and beyond settlement limits. There is a low potential for other burials to be located in this area.

4.1.1 The 1st Edition OS 25” map (1878-80) is very detailed for Ware. It shows the area now occupied by the Glaxo complex as still relatively undeveloped. The main addition is the brickworks on the northern side of the field with an engine house next to ‘The Cut’, a manmade channel off the river Lea. The former line of ‘The Cut’ lies to the east of the footprint of the proposed building. The ‘Backs’ associated with the brickworks are also shown to the north of the proposed building, though do not seem to extend into the site of the proposed Building 9. The site as a whole is labelled as a Brick Field. Extensive gravel quarrying is shown to the north of Park Road.

4.1.2 The 2nd Edition 25” OS map (1898) shows little change. The ‘Backs’ are still shown, and the site is labelled as a brick works, though the vicinity of the proposed

Building 9 is still shown as largely featureless. By the time the 3rd Edition OS 25" map (1923) is printed the brickworks have disappeared from the area to the east of 'The Cut' and the area is marked as allotment gardens. The brickworks buildings are still shown to the north and west of the site of the proposed building, the location of which appears blank. To the east, the malt houses remain, and the building by Harris's Lane has expanded and altered in shape. By this time, Ware Mills (Food and Drug) or Allen & Hanbury's factory has been constructed on the eastern side of Harris's Lane (dated 1899). A pavilion and Sports Ground have also been created just to the north of the latter. Extensive gravel quarrying is still shown to the north of Park Road.

4.1.3 Little is shown in the vicinity of the current site by the time of the 1960 6" OS map, other than the remaining small rectangular enclosures of 'The Backs' to the north of the site. The channel of 'The Cut' still lay to the east of the site, as do the allotment gardens. Major development of the site took place in the 1980s and 1990s when the Glaxo works were built.

4.1.4 The construction of Allen and Hanbury's factory in 1899 to the east, and construction since the late 1960s and early 1970s by Glaxo, are likely to have caused truncation to archaeological deposits, where present, particularly the 1980s and 1990s developments on the current site. Buildings and associated services and levelling works are likely to have disturbed the ground in parts of the assessment area, although made ground may have sealed archaeological features to a degree. The 1993 Westfield's evaluation directly to the west of the site recorded between 0.2m and 1.85m of modern overburden (commonly comprised of brick rubble) above gravel and alluvium deposits (McDonald 1993). No archaeological features were present, though it was suggested at the time that some surviving basal layers may be of Romano-British date. Some evidence of previous possible cellaring was recorded to the south of the area of the proposed Building 9, suggesting the presence of previous structures in this area not depicted on the OS maps. To the east of the current site, the 1994 Amenity Building trial trenches (Murray 1994) recorded shallower made ground (maximum of 0.80m) above the gravel and alluvium. Sparse prehistoric (Neolithic/Bronze Age) features were present, as well as a large post-medieval channel, possibly a former tributary of the river Lea and forming part of 'The Cut'.

4.2 *Geotechnical Information*

4.2.1 A detailed geotechnical report was carried out for the client by Fugro Engineering Services in January 2006 (see Appendix 4). The survey revealed the presence of variable deposits of made ground or topsoil overlying alluvium and flood plain gravels above deeper deposits of Upper Chalk. No peat deposits or other alluvial deposits were recorded that may be indicative of previous channels traversing the site.

4.2.2 The ground make-up was variable; in the southern part of the area of the proposed new building, made ground was encountered to a depth of 2m below existing ground level. The made ground deposits were above possible alluvial silt and clay to a depth of 3m below existing ground level. Flood plain gravels were present below this depth, above chalk. 25m to the west made ground was encountered up to 1.40m below existing ground level, with alluvial sands up to 3m below existing ground level. The alluvial sands were above flood plain gravels.

4.2.3 In the central part of the site made ground was identified up to a depth of 1.10m, above flood plain gravels. 25m to the south-west, made ground was identified up to 0.95m below existing ground level, above a possible further made ground of sandy clay to a depth of 2m below existing ground level.

4.2.4 The survey concluded that site had clearly been subjected to extensive ground disturbance at its upper levels during the laying of the hard-standing area. No former topsoils/'B' horizons were identified, with the natural alluvial deposits and floodplain deposits being directly overlain by 'made ground' of variable character (though principally comprising gravelly sands with variable brick and concrete fragments). Parts of the site had also been heavily truncated by the installation of buried services serving the current buildings surrounding the site.

5 METHOD OF WORK

5.1 The evaluation adhered to the Institute of Field Archaeologists' *Code of Conduct and Standard and Guidance for Archaeological Field Evaluation* (revised 2001) and the relevant sections of *Standards for Field Archaeology in the East of England* (Gurney 2003).

5.2 Seven trenches measuring 10m x 1.8—3.3m were excavated using a 180° wheeled mechanical excavator fitted with a toothless ditching bucket (Fig.3). The trench locations were approved by HCC HEU. Undifferentiated overburden was mechanically excavated, thereafter all further investigation was undertaken by hand. Exposed surfaces were cleaned as appropriate and examined for archaeological features and finds. Deposits were recorded using *pro-forma* recording sheets, drawn to scale and photographed. Excavated spoil was checked for finds and trenches were scanned by metal detector.

6 DESCRIPTION OF RESULTS

Individual trench descriptions are presented below;

6.1 Trench 1 Fig.4

<i>North End, West Facing</i>	
<i>Sample Section: 0.00 = 37.35m AOD</i>	
0.00 – 0.12m	L1000. Tarmac, road/car park surface.
0.12 – 0.22m	L1001. Ballast. Crushed yellow sandstone, levelling deposit.
0.22 – 0.56m	L1002. Made ground. Light-mid grey-brown, compact sandy clay. Frequent CBM.
0.56 – 0.84m	L1003. Made ground. Black sticky clay. Frequent CBM, wood and plastic
0.84 – 1.14m	L1004. Alluvial deposit. Mid orange-brown, firm silty clay with occasional gravel.
1.14m+	L1005. Alluvial deposit. Light-mid greyish brown, firm sandy silt.

<i>South End, West Facing</i>	
<i>Sample Section: 0.00 = 37.36m AOD</i>	
0.00 – 0.12m	L1000. As above.
0.12 – 0.26m	L1001. As above.
0.26 – 0.69m	L1002. As above.
0.69 – 0.75m	L1003. As above.
0.75 – 0.85m	L1006. Made ground. Mid-dark greyish brown, firm sandy silt with frequent CBM and charcoal.
0.85 – 1.10m	L1004. As above.
1.10 – 1.22m	L1005. As above.
1.22 – 2.30m+	L1007. Alluvial deposit. Natural alluvial silty clay with patches of gravel.

Description: No archaeological features or finds were present in Trench 1. Modern service trenches and intrusions were evident

6.2 Trench 2 Figs. 4 - 5

<i>East End, South Facing</i>	
<i>Sample Section: 0.00 = 37.09m AOD</i>	
0.00 – 0.12m	L1000. As above.
0.12 – 0.24m	L1001. As above.
0.24 – 0.38m	L1002. As above.
0.38 – 0.77m	L1008. Made ground. Light brown-grey, compact silty sand. Frequent wood, plastic and fabric.
0.77 – 0.83m	L1003. As above.
0.83 – 1.30m+	L1009. Natural sand and gravels. Mid reddish brown.
<i>West End, North Facing</i>	
<i>Sample section: 0.00 = 37.10m AOD</i>	
0.00 – 0.08m	L1000. As above.
0.08 – 0.32m	L1001. As above.
0.32 – 0.55m	L1002. As above.
0.55 – 0.68m	L1003. As above.
0.68 – 0.81m	L1006. As above.
0.81 – 1.16m+	L1009. As above.

Description: No archaeological features or finds were present in Trench 2. Modern intrusions were evident

6.3 Trench 3 Figs. 4 - 5

<i>Centre, West Facing</i>	
<i>Sample section: 0.00 = 37.08m AOD</i>	
0.00 – 0.33m	L1000. As above.
0.33 – 0.52m	L1001. As above.
0.52 – 0.69m	L1008. As above.
0.69 – 0.81m	L1010. Made ground. Light brownish-grey, compact silty sand. Frequent plastic, metal and wood.
0.81 – 0.94m	L1003. As above.
0.94 – 1.01m	L1006. As above.
1.01m+	L1004. As above.

Description: No archaeological features or finds were present in Trench 3. Modern services and intrusions were evident.

6.4 Trench 4 Fig. 4

<i>East End, North Facing</i>	
<i>Sample section: 0.00 = 36.92m AOD</i>	
0.00 – 0.17m	L1000. As above.
0.17 – 0.35m	L1001. As above.
0.35m+	L1011. Made ground. Crushed, compact white chalk.

<i>West End, North Facing</i>	
<i>Sample section: 0.00 = 36.92m AOD</i>	
0.00 – 0.13m	L1000. As above.
0.13 – 0.27m	L1001. As above.
0.27m+	L1011. As above.

Description: No archaeological features or finds were present in Trench 4. Modern services and intrusions were evident

6.5 Trench 5 Fig. 4

<i>North End, East Facing</i>	
<i>Sample section: 0.00 = 36.85m AOD</i>	
0.00 – 0.11m	L1000. As above.
0.11 – 0.29m	L1001. As above.
0.29 – 0.54m+	L1002. As above.

Description: The excavation of Trench 5 was limited due to high pressure gas main running the length of the trench. Areas of concrete were also present.

6.6 Trench 6 Fig. 4

<i>West End, North Facing</i>	
<i>Sample section: 0.00 = 36.79m AOD</i>	
0.00 – 0.22m	L1000. As above.
0.22 – 0.41m	L1001. As above.
0.41 – 0.81m	L1010. As above.
0.81 – 0.84m	L1012. Made ground. Layer of crushed red brick.
0.84 – 1.08m	L1003. As above.
1.08 – 1.20m+	L1006. As above.

<i>East End, South Facing</i>	
<i>Sample section: 0.00 = 36.80m AOD</i>	
0.00 – 0.11m	L1000. As above.
0.11 – 0.41m	L1001. As above.
0.41 – 0.84m	L1010. As above.
0.84 – 1.17m	L1006. As above.
1.17 – 2.00m	L1007. As above.
2.00m+	L1009. As above.

Description: No archaeological features or finds were present in Trench 6. Modern intrusions were evident

6.7 Trench 7 Figs. 4 - 5

<i>North End, West Facing</i>	
<i>Sample section: 0.00 = 36.80m AOD</i>	
0.00 – 0.10m	L1000. As above.
0.10 – 0.17m	L1013. Levelling deposit. Crushed grey stone.
0.17 – 0.33m	L1001. As above.
0.33 – 0.83m	L1002. As above.
0.83 – 0.92m	L1014. Made ground. Light yellow-orange, firm sand and gravel.
0.92 – 1.12m	L1006. As above.
1.12 – 1.31m	L1015. Dump deposit. Black, firm sandy silt. Frequent CBM.
1.31 – 1.48m	L1016. Dump deposit. light-mid reddish brown, friable silty sand.
1.48 – 1.90m+	L1017. Alluvial deposit. Mid yellow-brown, firm silt.

<i>South End, West Facing</i>	
<i>Sample section: 0.00 = 36.78m AOD</i>	
0.00 – 0.14m	L1000. As above.
0.14 – 0.24m	L1013. As above.
0.24 – 0.38m	L1001. As above.
0.38 – 0.98m	L1014. As above.
0.98 – 1.14m+	L1006. As above.

Description: No archaeological features or finds were present in Trench 6. Modern intrusions were evident

7 CONFIDENCE RATING

7.1 It is not felt that any factors inhibited the recognition of archaeological features and finds during the archaeological trial trench evaluation of the footprint of proposed Building 9, GlaxoSmithKline, Ware, Hertfordshire.

8 DEPOSIT MODEL

8.1 Black tarmac (L1000) was present across the whole of the site as was its ballast levelling deposit of crushed sandstone L1001. L1000 varied in thickness from 0.08 – 0.17m, L1001 varied from 0.10 to 0.30m. A further hardcore levelling deposit for the tarmac (L1013) was only identified in Trench 7; it varied in thickness from 0.07 – 0.10m.

8.2 Below the road/car park surface deposits, several made ground deposits were identified. These were L1002 (Trenches 1,2,5 & 7), L1003 (Trenches 1, 2 & 3), L1006 (Trenches 1, 2, 6 & 7), L1008 (Trenches 2 & 3), L1010 (Trenches 3 & 6), L1011 (Trench 4), L1012 (Trench 6), L1014 (Trench 7), L1015 (Trench 7), L1016 (Trench 7) and L1017 (Trench 7). The made ground deposits varied in thickness from 0.10 to 0.30m and formed a combined deposit that was generally 1.0m in thickness.

8.3 The made ground deposits overlay natural alluvium layers which were encountered between 1.01 to 1.17m below the ground surface. The alluvial deposits consisted of layers L1004 (Trenches 1 & 4), L1005 (Trench 1), L1007 (Trenches 1 & 6).

8.4 The alluvial deposits overlay the natural gravels (L1009). Natural gravels were identified at 0.83m below ground level to the north of the site (Trench 2) and at 2.00m below ground level to the south of the site (Trench 6). It cannot be confirmed if this variation is naturally occurring or whether it is the result of modern truncation of the site, but given the deep deposits of made ground encountered in Trench 1 in the northern part of the site, the latter is most probable.

9 DISCUSSION

9.1 Summary of the Archaeology

9.1.1 No archaeological features were identified during the evaluation carried out on the footprint of proposed Building 9, GlaxoSmithKline, Ware, Hertfordshire. Natural deposits of alluvium and riverine gravels were encountered buried under several deep layers of made ground. No former topsoils or B horizons were identified suggesting the ground surface had been stripped away before the consolidation of the site with made ground deposits.

9.2 Interpretation of the Site: Archaeology and History

9.2.1 With no archaeological evidence to examine other than modern made ground deposits, the reconstruction of the history of the site relies heavily on what can be gleaned from the cartographic sources. A succession of OS maps record very little activity in the area of proposed Building 9. The local geology is described as Eocene London Clay capped by deposits of gravel, brickearth and alluvium and quarrying of these deposits is recorded on the OS maps of 1878-80 and 1898. The area in which the current site is found is labelled Brick Field on the 1880 map and Brick Works on the map of 1898. It is possible that the truncation of the site observed during the evaluation occurred at this time as a result of quarrying for brick earth or activity associated with the Brick Works.

9.2.2 However, it is more likely that the truncation of the site occurred during the construction of the Allen and Hanbury's factory in 1899 and then during further development of the site in the late 1960s and early 1970s by Glaxo and again in the 1980s and 1990s by GlaxoSmithKline.

9.3 Preservation of Archaeology

9.3.1 The site has clearly suffered a high degree of truncation and it is unlikely that any significant archaeological deposits, if present, remain undisturbed.

9.4 Finds and Environmental Evidence

9.4.1 No archaeological remains were encountered, and no environmental samples were taken. The made ground deposits encountered during the mechanical excavation of the site produced finds of post-medieval and modern date.

9.5 Research Potential

9.5.1 Given the lack of archaeology and the strong evidence to suggest that the site has been heavily truncated, it is suggested that the site has little or no research potential.

ARCHIVE DEPOSITION

The archive will be deposited with Ware Museum within the next six months, and will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No. 2*. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data.

ACKNOWLEDGEMENTS

Archaeological Solutions Limited would like to thank GlaxoSmithKline for commissioning and funding this archaeological evaluation (in particular Mr Tony Douglas for his kind assistance).

AS would also like to acknowledge the kind assistance of Bovis Lend Lease (in particular Messrs Ray Bunch and Miff Choudhury).

AS would like to acknowledge the input, assistance and advice of Ms Alison Tinniswood of HCC Historic Environment Unit.

BIBLIOGRAPHY

McDonald, T. 1993. *Sportsfield, Westfield, Ware: Initial Evaluation*, HAT Report 69.

Murray, J. 1993. *Amenity Building, Glaxo, Ware. An initial archaeological evaluation. Interim Report*. HAT Report No. 81.

Soil Survey of England and Wales. 1983. Legend for the 1:250,000 *Soil Map of England and Wales*. Harpenden.

Williams, J, 2006, *Proposed Building 9, GSK, Ware, Hertfordshire: An Archaeological Desk-based Assessment*, AS Report 2015

Cartographic Sources

1878/80	OS 25" First Edition, Hertfordshire Sheets XXIX.8 & XXIX.12
1898	OS 25" Second Edition, Hertfordshire Sheets XXIX.8 & XXIX.12
1923	OS 25", Third Edition, Hertfordshire Sheets XXIX.8 & XXIX.12
1960	OS 6" Map

APPENDIX 1

SITES AND MONUMENTS RECORD SUMMARY SHEET

Site name and address:	Building 9, GlaxoSmithKline, Ware, Hertfordshire
County: Hertfordshire	District: <i>East Hertfordshire</i>
Village/Town: Ware	Parish: <i>Ware Rural</i>
Planning application reference:	planning ref. 3/00/000
Client name/address/tel:	<i>GlaxoSmithKline, Ware, Hertfordshire</i>
Nature of application:	Redevelopment
Present land use:	Tarmac hard-standing
Size of application area: 1.3ha	Size of area investigated:
NGR (8 figures):	TL 3475 1441
Site Code:	AS 1026
Site director/Organization:	C. Hallybone, Archaeological Solutions
Type of work:	Archaeological Trial Trench Evaluation
Date of work:	10 th – 27 th November 2006
Location of finds/Curating museum:	AS/Ware
Related SMR Nos:	Periods represented: -
Relevant previous summaries/reports: -	The Desk Based Assessment (Williams 2006) revealed that the site lies on the periphery of the Roman settlement at Ware, which straddles Ermine Street. Previous excavations at GSK have investigated the Roman vicus, or small town, which grew up along the Roman road of Ermine Street in the years following the Conquest of 43 AD. The settlement appears to have comprised industrial and domestic activity together with a possible shrine or temple sited on the course of the road and extending for some way into back plots. The concentration of Roman burials, on the east and west sides of the small town delineate the limits of the settlement. Numerous investigations at GlaxoSmithKline have helped define the Roman settlement, as well as locating more limited evidence for prehistoric activity from the Mesolithic, Neolithic and Iron Age periods. An evaluation was carried out to the east of this site revealed some low-density prehistoric features, whilst an evaluation to the west of the development area revealed possible Roman layers, and buildings associated with the 19 th -20 th century brickworks.
Summary of fieldwork results:	No archaeological features were identified during the evaluation. Natural deposits of alluvium and riverine gravels were encountered buried under several layers of made ground. No former topsoils or B horizons were identified suggesting the ground surface had been stripped away before the inundation of the site with the made ground deposits. It is possible that the site was truncated, either by quarrying or construction, during the late 19th century when OS maps label the area as “Brick Field” and then “Brick Works”. However, it is more likely that the truncation of the site occurred during the construction of the Allen and Hanbury’s factory in 1899 and then during further development of the site in the late 1960s and early 1970s by GlaxoSmithKline and again in the 1980s and 1990s.
Author of summary: P. Weston	Date of Summary: 05/12/06

**APPENDIX 2
CONCORDANCE OF FINDS**

Feature	Trench	Description	Spot Date	Pottery	CBM (g)	Other
1003		Layer			41	
1006		Made Ground			277	Clay Pipe Stem (1), 4g
						Fe Fragments (2), 11g
	7					Coke (3), 16g
						Clay Pipe Stem (1), 5g
1008		Made Ground				Thermalite Block (4), 167g
						Wood (3), 2g
1015		Layer	Late 17th-18th/Early 19th	(1), 19g		
	7				125	

APPENDIX 3 SPECIALIST REPORTS

The Ceramic Building Materials

Andrew Peachey

The trial trench evaluation produced 15 fragments (443g) of highly abraded 18th-19th century CBM. The latter consists of coarse sand-tempered, flat, 12mm thick roof tile in Layers L1003 (6 fragments, 41g) and L1015 (3 fragments, 125g), and in Made Ground L1006 (6 fragments, 277g). A further 4 fragments (167g) of a modern Thermalite block were recovered from Made Ground L1008.

The Pottery

Peter Thompson

The evaluation produced one sherd, weighing 18g, from L1015. It is a hollow handle with grey salt-glaze surfaces and blue painted flower decoration. It is similar to Westerwald stoneware but has an off white fabric and less of the 'orange peel' effect to the surface. This might be due to lower firing of the salt glaze to fix the enamel which came into use *circa* 1750. A date of later 18th to 19th century is therefore likely.

**APPENDIX 4
GEOTECHNICAL INFORMATION**

PHOTOGRAPHIC INDEX



1
Trench 1 East facing section



2
View of Trench 1 looking south



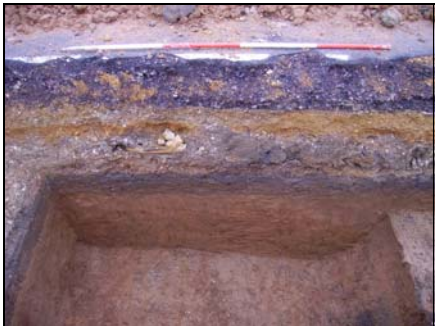
3
View of Trench 2 looking east



4
North facing section through Trench 2



4
View of Trench 3 looking south east



5
West facing section through Trench 3



6

View of Trench 4 looking east



7

View of Trench 5 looking south



8

Trench 5 north end, west facing section



9

Trench 6 south-west facing section through sondage



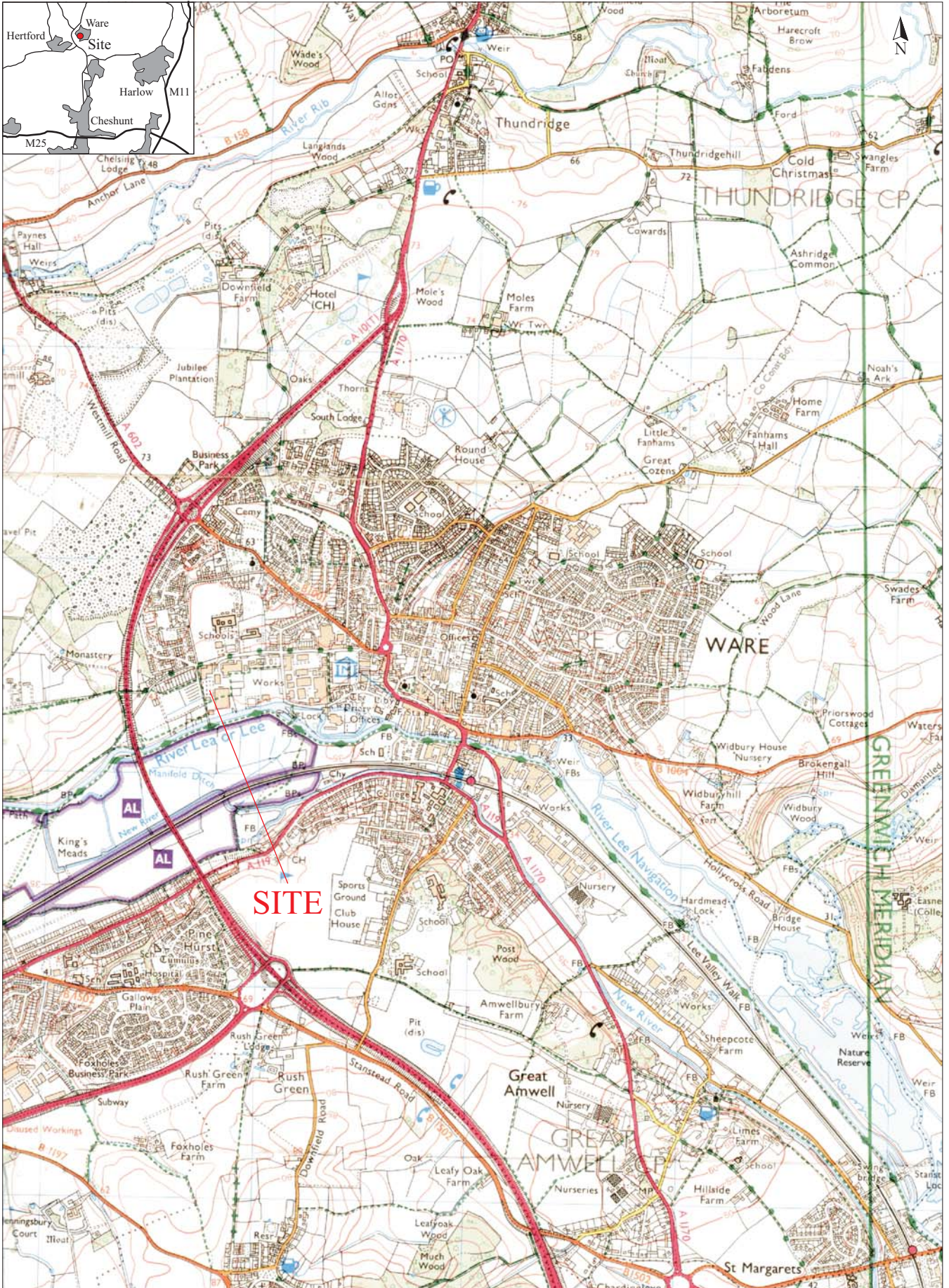
10

View of Trench 7 looking south



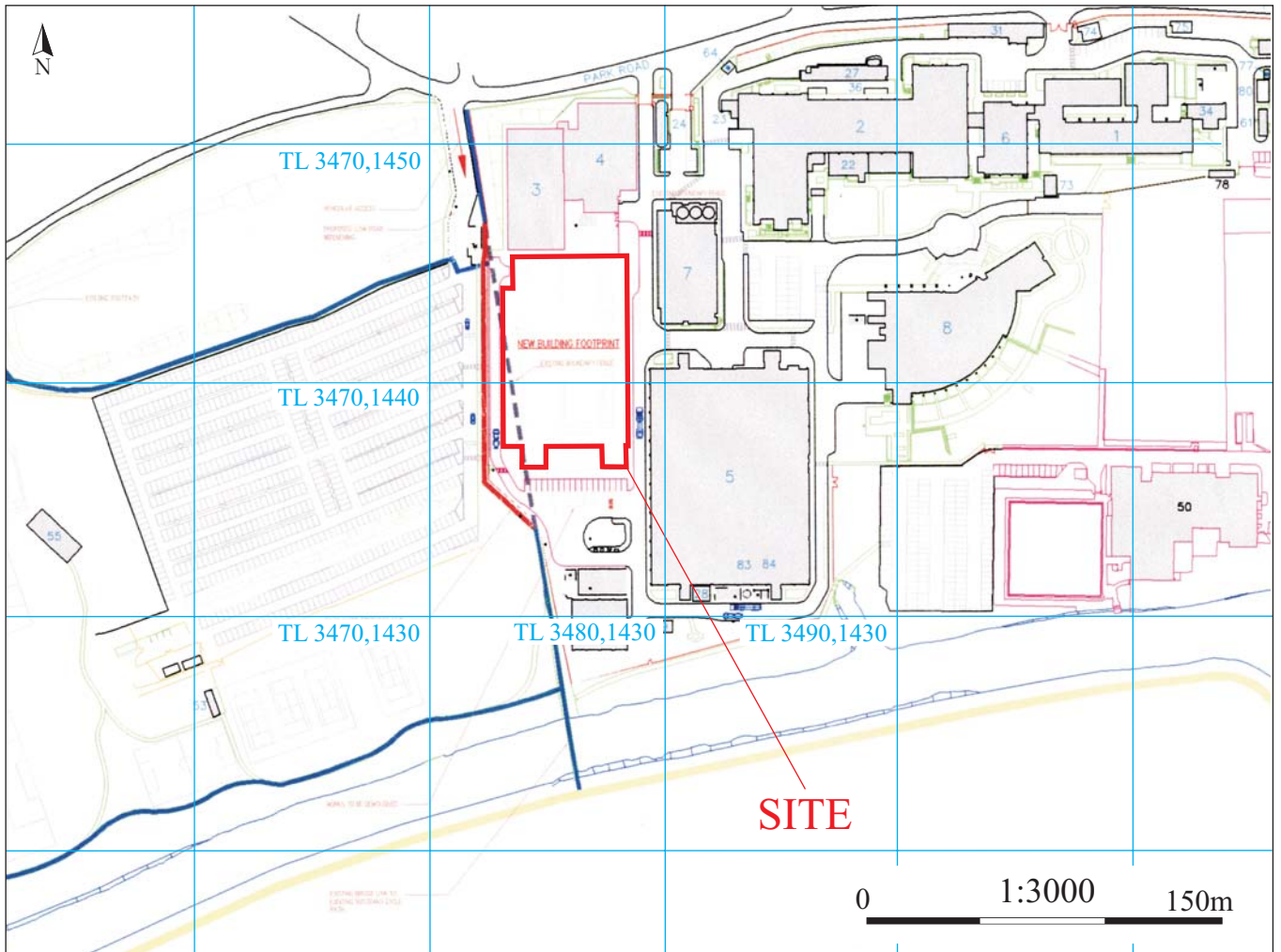
11

West facing section through Trench 7

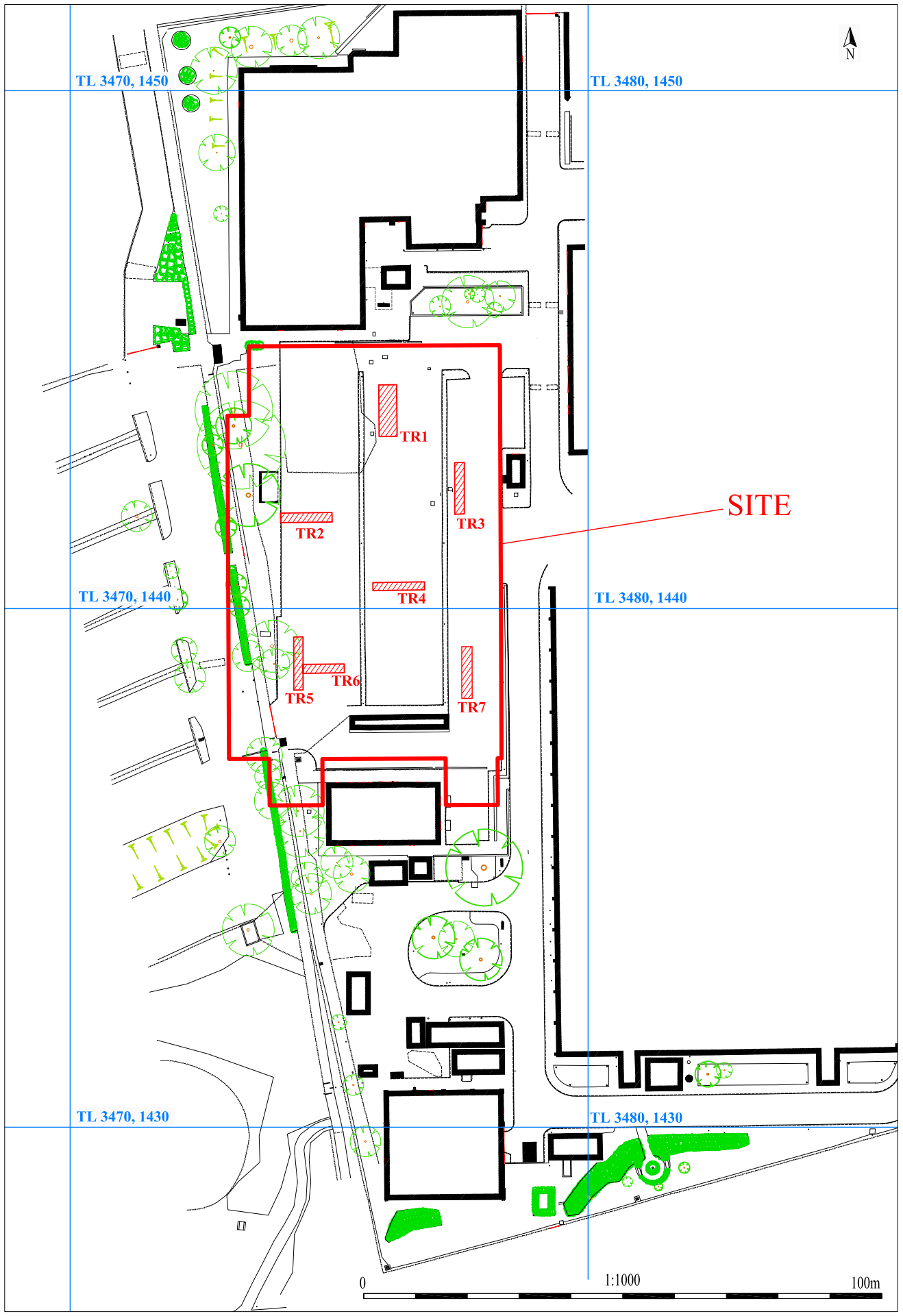


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Fig. 1 Site location plan
 Scale 1:25,000



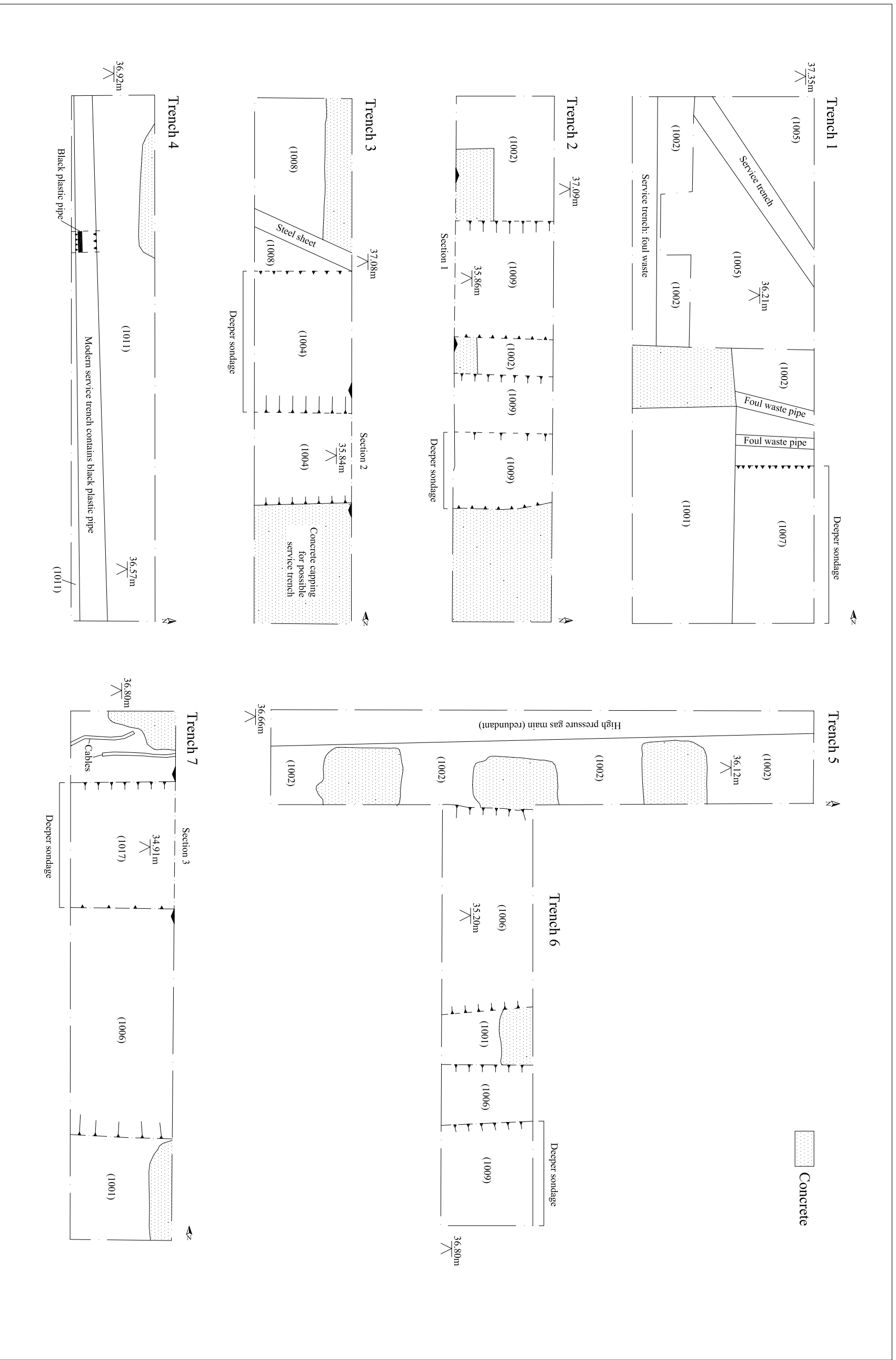
<i>Archaeological Solutions Ltd</i>
Fig. 2 Detailed site location plan
Scale 1:3000



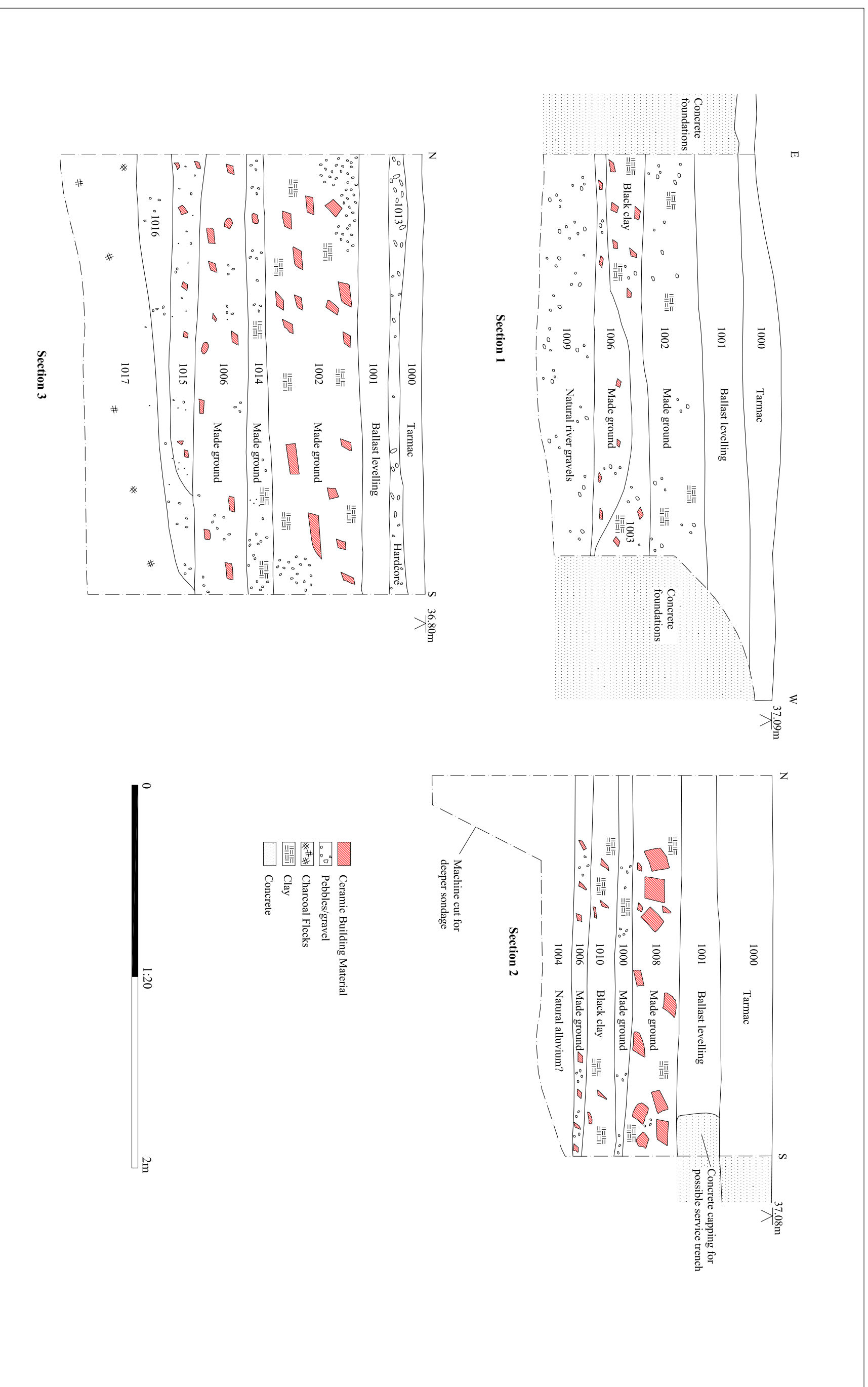
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Fig. 3 Location of trenches

Scale 1: 1000



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Fig. 4 All features plan
 Scale Plans 1:75



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Fig. 5 Sections
 Sections 1:20