

**ESSEX AND SUFFOLK WATER OFFICES  
HALL STREET  
CHELMSFORD  
ESSEX**

**ARCHAEOLOGICAL TRIAL PIT  
EVALUATION**



**Essex County Council**

**Field Archaeology Unit**

**April 2009**

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HALL STREET  
CHELMSFORD  
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EVALUATION**

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**ESSEX AND SUFFOLK WATER OFFICES,  
HALL STREET, CHELMSFORD,  
ESSEX**

**ARCHAEOLOGICAL EVALUATION  
BY TRIAL PITS**

**Client:** Essex and Suffolk Water PLC

**Planning Reference:** pre-planning application

**NGR:** TL 7097 0633

**Site Code:** CF60

**ECC FAU Project Number:** 1867

**OASIS Index Number:** essexcou1-58208

**Dates of Fieldwork:** 15-18 September 2008

**SUMMARY**

*An archaeological evaluation by trial pits was carried out on the site of the Essex and Suffolk Water Company offices at Hall Street, Chelmsford. An earlier archaeological desk-based assessment concluded that the site contained significant remains related to Roman Chelmsford (Allen 2007). The trial pit evaluation was designed to establish the degree of survival of Roman deposits across the site area, to enable an archaeological mitigation strategy to be developed as part of a future planning application for redevelopment.*

*The earlier desk-based assessment identified the site as lying within the area of Roman Chelmsford, a posting station (mansio) and roadside settlement established on the London-Colchester road south of the crossing of the rivers Can and Chelmer. The assessment showed that a Roman gravelled road crossed the north of the site on a west-north-west to east-south-east alignment, forming a side-road of the London-Colchester road. The side-road was first laid out in c. AD 70-75, and comprised a sequence of road metallings flanked on both sides by timber buildings and yards, dating from the late 1st to late 4th centuries. The line of the road was confirmed by previous trial pit recording in 1985 before construction of a new computer building on site. Excavations to the east of the site suggest that the road was realigned to the south-east in the early 2nd century to avoid the temple precinct.*

*Roman stratigraphy survived in all five trial pits excavated in 2008. Trial Pit 4 identified the metallings of the Roman road running along the site's northern edge, as previously recorded in the 1985 trial pits. In Trial Pit 3 a sequence of brickearth surfaces immediately to the north of the road represents the floors of successive timber buildings. Trial Pit 5 failed to locate the suggested realignment of the Roman road to the south, but recorded a Roman buried soil. Trial Pits 1 and 2 also recorded a Roman buried soil, with patches of rough surfacing, representing an external area across the south of the site, to the rear of (presumed) buildings along the south side of the Roman road. The small quantity of Roman pottery recovered cannot be closely dated, but suggests that Roman activity continued into the 3rd century, and probably also the 4th century, which is consistent with better-dated sequences from adjacent excavations.*

*In all the trial pits the Roman strata were sealed by the medieval/post-medieval cultivated soil previously recorded in the 1985 trial pits. This soil was up to 0.6m thick, contained post-medieval pottery and other artefacts, and was everywhere overlain by modern overburden or car park surfacing.*

*The trial pit evaluation has established that Roman stratigraphy is well preserved in all areas outside the existing buildings and the infilled underground reservoir in the west of the site. It confirms the conclusions of the desk-based assessment that the most likely areas of surviving Roman remains are:*

- 1. At the southern and western limits of the current car park in the west of the site;*
- 2. Across the north of the site, especially north of the 1985 computer building; and*
- 3. Between the 1985 building and the former silk mill/radio factory to its east.*

*In all these areas the Roman strata was preserved undisturbed beneath the cultivated soil horizon. The Roman strata was between 0.2 and 0.6m thick, and was encountered at a depth of between 1.0 and 1.5m over most of the site and, exceptionally, between 1.0 and 1.8m along the site's northern edge.*

*The desk-based assessment also identified a group of historically important 19th-century industrial buildings still standing on the site. These are relating to the original water works of 1854-68 and John Hall's silk mill of 1858, converted by Guglielmo Marconi in 1899 into the world's first radio electronics factory. These buildings have been assessed separately and fall outside the scope of the trial pit evaluation. However, Trial Pits 3, 4 and 5 recorded the foundations of brick outbuildings related to the original water works and the silk mill/radio electronics factory.*

## **1.0 INTRODUCTION**

This report describes the results of an archaeological evaluation by trial pits at the Essex and Suffolk Water Offices, Hall Street, Chelmsford, Essex. The present report should be read in conjunction with an earlier archaeological desk-based assessment report (Allen 2007). These reports have been prepared to inform a future planning application for redevelopment of the site. The archaeological evaluation was carried out by the Essex County Council Field Archaeology Unit (ECC FAU) for Essex and Suffolk Water, after consultation with the Essex County Council Historic Environment Management team (ECC HEM), in accordance with Planning Policy Guidance note 16 (DoE 1990). The evaluation followed the written scheme of investigation prepared by ECC FAU (2008) and the work was monitored by the ECC HEM.

The archaeological trial pit evaluation forms a second stage of investigation, following the earlier archaeological desk-based assessment (Allen 2007). This assessment established that the site lies within the area of Roman Chelmsford and that there is a high potential for well-preserved Roman remains to survive on several areas of the site. The assessment recommended further evaluation by trial pits to provide a more detailed appraisal of deposit survival across the site, and enable an archaeological mitigation strategy to be developed as part of a future planning application for redevelopment.

The assessment also identified important 19th-century industrial buildings on the site (see 2.3.3 below) and recommended that they should be retained in any redevelopment (Allen 2007, 20). The buildings have previously been assessed in surveys carried out by the Royal Commission on Historic Monuments of England (Crosby 1999; Cocroft and Menuge 1999) and fall outside the scope of this report. A separate mitigation strategy for them should be developed in consultation with Chelmsford Borough Council's historic buildings advisor.

Copies of this report will be supplied to Essex and Suffolk Water Ltd and the Essex CC Historic Environment Management team, and will be regarded as confidential until Essex and Suffolk Water give permission for wider distribution. Report copies will be supplied to Essex and Suffolk Water to forward to the Chelmsford Borough Council Planning Department along with the planning application. When wider distribution is approved, report copies will also be sent to the Essex Historic Environment Record and a digital copy of the report will be uploaded onto the Online Access to Index of Archaeological Investigations (OASIS) (<http://ads.ahds.ac.uk/project/oasis>). The archive will be deposited at Chelmsford Museum.

## **2.0 BACKGROUND**

### **2.1 Site Description (Fig. 1)**

The Essex and Suffolk Water Company offices are situated in Hall Street, in the Moulsham suburb of Chelmsford, 0.5km to the south of the modern town centre, and in the area of the former Roman town (TL 7097 0633).

The site (Fig. 1) is rectangular, measuring 82m east-west by 45m north-south, and occupies a corner site, bounded by Hall Street to the south and Mildmay Road to the east. Most of the offices have been converted from former 19th-century industrial buildings. Along the east side of the site a former silk mill/radio factory range, with a small office block attached, fronts onto Hall Street and extends back parallel with Mildmay Road. There is a house to its west, on Hall Street, and the pump house of the original water works survives in the site's north-west corner. A modern computer block was constructed immediately to the west of the house on Hall Street in 1985. Most of the western half of the site is a staff car park surfaced in tarmac, which overlies an underground reservoir, now infilled. A survey carried out in April 2007 has detected a dense network of underground services across the site, especially along its northern edge.

### **2.2 Geology and Topography**

The surface geology of the area is brickearth above first terrace gravels of the river Chelmer, to the south of its confluence with the river Can. The modern ground surface slopes gently from 25.0m OD in the south-west of the site to 24.1m OD in the north-east.

### **2.3 Archaeological and Historical Background (Fig. 2)**

This archaeological and historical background is based on the earlier archaeological desk-based assessment (Allen 2007), which made use of reports on previous excavations in the immediate area of the site and trial pit recording on the site itself, as well as relevant historical and cartographic sources.

#### **2.3.1 Prehistoric**

Previous excavations in the surrounding area, especially at the temple site to the east (Fig. 2), suggest there is potential for Mesolithic and Neolithic flint artefacts, and Late Bronze Age and Iron Age features to survive in a buried soil above the natural brickearth (Allen 2007, 7).

### 2.3.2 Roman

The site lies in the area of the Roman forerunner of Chelmsford, known as *Caesaromagus*, a posting station and 'small town' established on the Roman road from London to Colchester, to the south of the crossing of the rivers Can and Chelmer (Fig. 2). The overall character and development of the Roman town has already been described elsewhere (Drury 1975; 1988; Wickenden 1992; 1996; Wachter 1994; Black 1995; Medlycott 1998). The archaeological desk-based assessment has reconstructed the Roman topography of the site and its surrounding area (Allen 2007, 8-11), based on an unpublished report draft on excavations of adjacent sites (Isserlin and Wickenden in prep.), and an assessment of the results of trial pit recording on the site itself in 1985 (Allen 2007, 15-17). A general summary is given here.

The site lies 80m to the east of the Roman London-Colchester road, whose line survives as modern Moulsham Street. A small fort was established in the aftermath of Boudica's revolt of AD 60-61, but this was short-lived and from c. AD 70-75 a small civilian settlement developed along the London-Colchester road and a side-road extending to its east, projected as running through the Hall Street site. The temple precinct immediately to the north-east of the site was first laid out at this time, as were the earliest elements of the *mansio* (posting station) to the south of the site.

The Roman town underwent a major re-organisation in the early 2nd century and assumed its final plan form, with few changes until its abandonment in the early 5th century (Fig. 2). The side-road projected as running through the Hall Street site appears to have been extended eastwards in the early 2nd century, following a new alignment south of the temple precinct. The area to the south of Hall Street was occupied by the *mansio* (posting station), which had been rebuilt as large courtyard building with a bath house, within a much-enlarged official precinct. The town grew to its greatest extent in the 2nd and 3rd centuries, with timber houses/shops/workshops extending along the main London-Colchester road, and along the side-road as far east as the site area.

In the later 2nd century the town was provided with earthwork town defences, which are projected as running along the eastern boundary of the Hall Street site, separating it from the temple precinct to the east (Fig. 2). The temple precinct was provided with a new stone-built octagonal shrine in the early 4th century. Timber buildings along the main roads continued to be replaced in the 3rd and 4th centuries, although by the mid-late 4th century there is evidence of decline, with roads falling into disrepair and some building plots being left vacant.

Two of the 1985 trial pits recorded the southern ditch of the side road crossing the site, and dated its fills to the 2nd-4th centuries, while a third trial pit recorded a rough surface in the south of the site dated to the 3rd century (Allen 2007, 15-16; Andrews and Gee 1985; 1986). Natural brickearth was located at a depth of 1.3-1.5m, and the top of the Roman deposits was encountered at a depth of 0.8-1.0m, suggesting survival of up to 0.5m thickness of Roman strata. However, analysis of likely deposit survival across the site identified areas where Roman strata was unlikely to survive, through disturbance by 19th- and 20th-century building foundations, an underground reservoir and modern services. In addition, other areas of site are unavailable for archaeological investigation because of the presence of historic buildings that are recommended for preservation

### **2.3.3 Medieval, post-medieval and modern**

The 1985 trial pits showed the Roman strata sealed by a cultivated soil up to 0.7m thick, certainly dating to the post-medieval period, and possibly as early as the medieval period. This was sealed by modern overburden and car park surfacing.

The desk-based assessment concluded that after the Roman period the site reverted to open ground, and until the water works and Hall Street were established in the 1850s the site was an area of market gardens and orchards (Allen 2007, 12-14). Three historic buildings survive on the site: the 1854-60 pump house of the original water works; John Hall's silk mill of 1858, converted in 1899 by Guglielmo Marconi as the world's first radio electronics factory; and the manager's house built to the west of the silk mill/radio factory (Allen 2007, 19-20). The buildings have previously been assessed in surveys carried out by the Royal Commission on Historic Monuments of England (Crosby 1999; Cocroft and Menuge 1999). The silk mill/radio factory is of considerable historical importance and is Grade II listed.

## **3.0 AIMS AND OBJECTIVES**

The general aim of the trial pit evaluation was to establish the character and levels of survival of the Roman deposits across the site, adding to the information already collated in the archaeological desk-based assessment, to enable an archaeological mitigation strategy to be developed.

The research objectives for the project were in line with those laid out in *Research and Archaeology: a Framework for the Eastern Counties*, 2. *research agenda and strategy* (Brown and Glazebrook 2000). The date, character and development of Roman 'small

towns' in the region, especially in the late Roman period, is an important regional research topic (Brown and Glazebrook 2000, 21).

The specific objectives of the trial pit evaluation were as follows:

1. To establish the upper level of surviving Roman deposits across the site;
2. To confirm the two Roman road alignments (Fig. 1, TP 3-5);
3. To confirm the character of surfaces/deposits to the south of the two roads (Fig. 1, TP 1-2).

## **4.0 METHOD**

The archaeological work was undertaken in accordance with the Institute of Field Archaeologists' *Standards and Guidance for Archaeological Field Evaluation* (IFA 1999) and the Association of Local Government Officers' *Standards for Field Archaeology in the East of England* (Gurney 2003). The ECC FAU is a registered archaeological organisation with the Institute of Field Archaeologists. The ECC FAU uses its own recording system to record archaeological deposits and features.

The site was evaluated by five trial pits measuring approximately 2 x 2m distributed around the site, but targeted on areas of suspected archaeological interest, especially the projected lines of the Roman roads (Fig. 1). The trial pits were located to avoid an infilled underground reservoir and, since the water company's premises were still in use, existing live services and the main access routes through the car park.

A tracked 360° mini-excavator was used to strip overburden and topsoil in all the trial pits down to the top of surviving Roman stratigraphy, whose surface was cleaned by hand. The Roman deposits were then investigated by means of a narrow machine-cut slot 0.5m wide, with excavation by hand where necessary to understand the stratification and retrieve finds. After the archaeological investigation had been completed in each trial pit, the 0.5m-wide slot was excavated further by machine to a depth of c. 3.0m into the uppermost geological strata to enable samples to be taken for geotechnical analysis. All trial pits were backfilled and the car park surface re-instated after the archaeological and geotechnical investigations had been completed.

The trial pits were planned at a scale of 1:20 and sections were drawn at a scale of 1:10, with levels reduced to Ordnance Datum, and were surveyed into the Ordnance Survey by local measurement. All contexts (layers, walls, cut features and deposits) were individually recorded on pro-forma sheets. Colour digital photographs were taken of all trial pits.

## **5.0 FIELDWORK RESULTS**

All the trial pits recorded Roman deposits, consisting of gravel road metallings, brickearth floor surfaces and buried soil layers overlying the natural brickearth and surviving at depths of over 0.9m. The Roman strata formed sequences up to 0.6m thick in some areas, and was sealed by a post-medieval cultivated soil at least 0.6m thick. Nineteenth- and twentieth-century levelling layers, surfaces, walls and drains were recorded at the top of the sequence in all the trial pits, but in many areas of the site these did not intrude into the underlying Roman strata. Full details of the deposits and features recorded in the trial pits can be found in Appendix 1.

### **5.1 Trial Pit 1 (Figs 1 and 3)**

Trial Pit 1 measured 2.0 x 2.0m and was located in the south-west of the site, against its western boundary.

Natural brickearth (4) was recorded at 23.56m OD, 1.25m below modern ground level. It was overlain by a 0.5m-thick layer of dark yellowish brown clayey silt with occasional pebbles, stone fragments and charcoal flecks (3). This contained 31 sherds of Roman pottery, including diagnostic sherds datable to the 3rd century or later, as well as Roman tile fragments. A single post-medieval pottery sherd is considered to be intrusive, especially as the boundary between layer 3 and the overlying layer was not well defined. Layer 3 is interpreted as a Roman buried soil.

The Roman soil was overlain by a 0.6m-thick layer of dark grey-brown clayey silt with few inclusions (2), the cultivated soil previously recorded in the 1985 trial pits. Soil layer 2 contained a few sherds of post-medieval roof tile and bottle glass, small pieces of coal, and two sherds of modern pottery. It was directly sealed by the modern car park surface.

## **5.2 Trial Pit 2 (Figs 1 and 4; Plate 1)**

Trial Pit 2 measured 1.9 x 2.1m and was located in the centre-south of the site, against the west wall of the new computer building constructed in 1985. It was located close to the 1985 Trial Pit 2, which recorded a Roman external surface (see 2.3.2 above, p.6).

Natural brickearth (8) was recorded at 23.56m OD, 1.2m below modern ground level. It was overlain by a 0.25m-thick layer of dark yellowish brown clayey silt with moderate stones and a lens of red burnt daub or mudbrick (7). This material was excavated in the south-east of the trial pit as well as in the slot up its centre, but appears to represent no more than a spread of hardcore deposited to provide a rough surfacing (Plate 1). Layer 7 contained 10 sherds of Roman pottery, including diagnostic sherds datable to the 3rd century or later, and Roman tile and glass fragments. As with the similar layer in Trial Pit 1, it is interpreted as a Roman buried soil, although with some evidence of patchy surfacing.

Layer 7 was overlain by a 0.5m-thick layer of dark grey-brown clayey silt with moderate pebbles and occasional brick flecks (6), the cultivated soil previously recorded in the 1985 trial pits. Soil layer 6 contained a sherd of post-medieval pottery, a few sherds of post-medieval brick/tile and residual Roman tile. It was sealed by a layer of yellow-brown silty clay with occasional brick fragments (5), representing a construction layer for the adjacent 1985 building, sealed in its turn by the modern car park surface.

## **5.3 Trial Pit 3 (Figs 1 and 5; Plate 2)**

Trial Pit 3 measured 1.9 x 2.0m and was located in the centre-north of the site, to the east of the original water works pump house. Its location was designed to identify the northern edge of the Roman road projected across the north of the site. In the event, no evidence of the Roman road was located, not least because the southern edge of the trial pit was disturbed by a deep modern drain, but other Roman strata were recorded beyond the road area.

Natural brickearth (31) was recorded at 22.84m OD, 1.8m below modern ground level. It was sealed by a 0.06m-thick layer of mixed greyish yellowish brown clayey silt (30), probably disturbance of the natural brickearth. This was sealed by a 0.12m-thick levelling of greyish brown clay-silt with brickearth lenses (29), cleaner and more compact than the overlying layer, and forming a surface at 23.03m OD. Above 29, a thin silt and patchy brickearth layer (28) represents material accumulated and trampled over the surface. The use of brickearth rather than gravel for the surfacing suggests it was internal rather than external.

Two further surfaces with occupation deposits above them were recorded above surface 29/28. Both were yellow-brown brickearth layers 0.06-0.07m thick, forming successive surfaces at 23.11m OD (27) and at 23.27m OD (25). Surface 27 is shown on the Fig. 5 plan and on Plate 2 as representative of the whole sequence. Surfaces 27 and 25 were both overlain by grey-brown silty layers (26 and 23), again representing material accumulated above them. The uppermost occupation deposit, 23, was 0.15-0.20m thick and most likely accumulated over a long period of time in which no new surfacing was laid. This was the latest Roman deposit, with a surface level of 23.45m OD.

Most of the layers in this sequence of surfaces and overlying accumulations contained small amounts of Roman pottery, although unfortunately none of this material is closely datable. The trial pit appears to have narrowly missed the northern edge of the Roman road, and instead located an area of probably internal floor surfaces immediately to its north.

The Roman strata were sealed by a 0.6m-thick layer of greyish brown clayey silt (22), the cultivated soil previously recorded in the 1985 trial pits. To the north, soil 22 was cut by a wall aligned east-west, made up of stock and red bricks bonded in a creamy brown mortar. The wall was constructed on a foundation of compacted yellow-brown sandy gravel (24) within a broad foundation trench (19) that cut down to the top of the Roman strata. The foundation was offset 0.25m from the south face of the wall, and the upper part of the foundation trench was backfilled with mixed silt and brick rubble (18). Cut from the same level as foundation trench 19 was a large trench for a drain (020), 1.0m deep, which truncated almost all earlier strata along the southern edge of the trial pit. It was backfilled with mixed brick rubble and disturbed soil (21). Wall 18 is dated by its brickwork to the 19th century, no doubt to the period after the 1850s when the site was developed as a water works and a silk mill. A thin dark grey-black ash layer (16) sealed the backfill of the drain and ran up to the south face of wall 18. Layer 16 was sealed by a thick layer of rubble incorporating stock and red bricks (15) from the demolition of wall 18 and any related structure. This formed the base for the modern concrete surface for the car park. Above this a thick layer of gravel capped by tarmac raised the level of the car park locally, almost certainly part of the works carried out when the new building was constructed in 1985.

#### **5.4 Trial Pit 4 (Figs 1 and 6; Plates 3 and 4)**

Trial Pit 4 measured 2.0 x 2.1m and was located in the centre-north of the site, only 12m south-east of Trial Pit 3, against the north wall of the 1985 computer building. Its location was designed to identify the southern edge of the Roman road projected along the northern edge of the site. It was deliberately located close to the 1985 Trial Pits 3 and 4, which had

previously recorded the southern edge of the Roman road and the roadside ditch, to confirm and add to the results of the previous investigation (see 2.3.2 above, p.6).

The uppermost surface of the Roman road recorded in 1985 was exposed at 23.57m OD, 0.95m below modern ground level, and was recorded in detail before further excavation by a machine-cut trench. The road surface was formed by a compacted, relatively clean orange-yellow gravel metalling (40), overlain to the south by a strip of dark grey sandy silt mixed with gravel and large fragments of tile and pottery (38, 39) (Plate 3). The section of road recorded was only 1.0m wide but clearly represents the southern half of the road as surface 40 formed a distinct camber to the south. Surfaces 38 and 39 represent an area of washed silt along the road edge, with areas of gravel and hardcore forming patchy repairs. The true southern edge of the road did not survive as it was truncated by a 19th-century foundation, but appears to have been located at or near the southern edge of the trial pit, with the centre of the road at or just beyond its northern edge. Surfaces 38 and 39 at the edge of the road were fully excavated to expose the camber towards its southern edge and to recover dating material.

Further excavation by a 0.5m-wide machine-trench enabled the full sequence of road metallings to be recorded in section (Plate 4). Natural brickearth (46) was recorded at 23.12m OD, 1.5m below modern ground level. It was sealed by a 0.12m-thick layer of leached light grey slightly silty sand with rare charcoal flecks at its surface (45), probably slightly disturbed subsoil. This was sealed by a sequence of three compacted gravel metallings, described from earliest to latest as follows.

Road metalling 44 was made up of heavily iron-panned red-brown gravel with medium and coarse pebbles, 0.12m thick, forming a surface at 23.36m OD, with a slight camber down towards the south.

Road metalling 43 was made up of light grey-yellow gravel, 0.12m thick, forming a surface at 23.48m OD, with a very slight camber down towards the south.

Road metalling 40, described above, together with road-edge deposits 38 and 39, was up to 0.18m thick, forming a surface at 23.56m OD, with a distinct camber down to 23.48m OD in the south. The section shows that the metalling 40 and the road-edge deposits 38 and 39 would have continued under the later wall 32, whose base rested on the uppermost road surface.

None of the road metallings contained any dating evidence, but deposits 38 and 39 at the edge of road metalling 40 contained a few sherds of Roman pottery and fragments of Roman tile, although unfortunately none of these is closely datable.

Overall, these three road metallings formed a build-up of road gravels, 0.4m thick, on the line of the Roman road recorded in 1985, towards its southern edge and at the same depth below modern ground level (see 2.3.2 above, p.6).

The Roman road was sealed by a 0.45m-thick layer of grey-brown clayey sandy silt (36), the cultivated soil previously recorded in the 1985 trial pits. This was cut to the south by the foundation of a wall aligned east-west, 0.50m wide and 0.15m deep, trench-built (33) and consisting of a base of hard pale yellow-brown pebbly mortar (32) (Plate 3). The base of the foundation rested on the top of the uppermost Roman strata. The upper part of the foundation had been robbed (41), with the robber trench infilled with dark grey-brown sandy silt mixed with fragments of yellow-brown mortar and red brick (42). This foundation is likely to have been Victorian, as its mortar is similar to that of known Victorian structures on the site. The robber trench and cultivated soil were truncated by a modern layer of ash and stony clay, forming a levelling for a concrete slab. This was cut in its turn by several modern pipe trenches, now disused, before the entire area of the trial pit was sealed by a gravel levelling and tarmac surface for the modern car park.

## **5.5 Trial Pit 5 (Figs 1 and 7; Plate 5)**

Trial Pit 5 measured 1.5 x 2.0m and was located in the centre-east of the site. Its location was designed to identify the northern edge of the second Roman road projected as crossing the site from south-east to north-west (see 2.3.2 above, p. 5).

Natural brickearth (13) was recorded at 23.22m OD, 1.33m below modern ground level. It was overlain by a 0.11m-thick layer of yellowish brown clayey silt (12), which contained a few sherds of Roman pottery, and represents a Roman buried soil layer. Trial Pit 5 failed to locate the northern edge of the projected second Roman road, although given the small size of the trial pit the lack of evidence is not conclusive.

The Roman soil was overlain by a 0.5m-thick layer of dark greyish brown clayey silt (9), the cultivated soil previously recorded in the 1985 trial pits. Cultivated soil layer 9 was cut by the north-eastern corner of a brick structure (14), represented by two short lengths of brick foundation (10 and 11) comprising stock and red bricks laid in English bond. The foundation cut to below the natural brickearth, while its top was 0.4m below modern ground level. The

materials used in the foundation are typically Victorian and it is probably significant that the structure shares the alignment of the 1858 silk mill to its east and the related house to its south. The foundation and cultivated soil were overlain by two successive tarmac surfaces on thick beds of gravel and concrete, forming the modern car park surface.

## **6.0 FINDS**

By J. Compton

Small groups of finds were recovered from a total of twelve contexts, across five trial pits. All of the finds have been recorded by count and weight, in grams, by context. Full quantification details can be found in Appendix 2, along with tables presenting finds information for each test pit. The finds are described by category below.

All five trial pits produced Roman material, with Trial Pit 1 containing approximately half of the total assemblage. Trial Pits 4 and 5 produced the smallest amounts. Post-medieval and modern material was recovered from upper layers in Trial Pits 1, 2 and 5.

### **6.1 Pottery**

Eleven contexts produced pottery, amounting to 67 sherds, weighing 1.3kg, almost all of which is of Roman date. This component has been rapidly recorded by fabric and form in order to characterise the pottery; the few vessels present were classified using the typology in Going 1987 (13-54). Few contexts contained more than ten sherds of pottery and most of the assemblage comprises body sherds in coarse fabrics which are not closely datable within the Roman period. The exception is the Roman buried soil 3 in Trial Pit 1, which contained fabrics and forms of certain 3rd century date, and pieces which may continue into the 4th century. Pottery which is exclusively 4th century, however, is entirely absent. Post-medieval and modern sherds were recorded in cultivated soil 2 and Roman buried soil 3 in Trial Pit 1, and in cultivated soil 6 in Trial Pit 2.

### **6.2 Brick and Tile**

Small amounts of brick and tile, amounting to a total of 23 pieces, weighing 2.6kg, were recorded in five contexts. Almost all of the assemblage is Roman, with post-medieval roof tiles recorded in cultivated soil layers 2 in Trial Pit 1 and 6 in Trial Pit 2. Box-flue tile fragments were retrieved from Trial Pit 2 (Roman buried soil 7) and Trial Pit 4 (Roman road surface 38). The fragment from buried soil 7 has combed lines and that from road surface 38 has an incised lattice.

### **6.3 Glass**

Three contexts produced glass fragments, mostly post-medieval (cultivated soil 2, Trial Pit 1) or modern (cultivated soil 9, Trial Pit 5). Roman buried soil 7 (Trial Pit 2) produced the sole Roman sherd; this is a small sherd of window glass of the ubiquitous matt-glossy type.

### **6.4 Animal Bone**

A small amount of animal bone, 33 pieces, weighing 606g, was recorded, with a single context (Roman buried soil 3, Trial Pit 1) producing 94% by weight of the total. The assemblage is too small for comment, although cattle bones are the most prolific. Horse bones were identified in Roman buried soil 3 (Trial Pit 1) and post-medieval cultivated soil 9 (Trial Pit 5).

### **6.5 Other Finds**

These are few; a single oyster shell was found in post-medieval cultivated soil 2 (Trial Pit 1), iron objects and nails were found in Roman buried soil 3 (Test Pit 1) and slag/vitrified material was found on Roman buried soil 7 (Trial Pit 2) and Roman surface 27 (Trial Pit 3).

### **6.6 Comments on the Assemblage**

Although quantities are small, a variety of mostly Roman finds was recorded. All of the test pits produced Roman material, although minimal amounts were recovered from Test Pits 4 and 5. The tile and mortarium fragments excavated from Roman road surface 38 (Test Pit 4) may represent their use as 'hardcore' in a repair to the surface.

Further work on the finds is not required at this stage. The post-medieval and modern glass has been discarded on health and safety grounds, along with several small pieces of tile from accumulation 3 (Trial Pit 1). All of the remainder of the material should be retained. The finds occupy one box.

## **7.0 CONCLUSIONS**

### **7.1 Prehistoric**

No prehistoric deposits or artefacts were recorded in the trial pits, not even as residual finds.

### **7.2 Roman (Fig. 8)**

All five trial pits recorded Roman stratigraphy sealed beneath a post-medieval cultivated soil, with some areas of disturbance from modern foundations and service trenches. The trial pits confirmed the results of the desk-based assessment (Allen 2007), which reconstructed the Roman topography of the site as a road with related timber buildings extending west-north-west to east-south-east across its northern half, and an open area across its southern half (Fig. 8). However, the projected second Roman road, extending south-eastwards from the first, was not located.

Trial Pit 4 recorded the Roman road identified in the 1985 trial pit investigation as running across the north of the site. The southern half of the road was recorded, and the uppermost road surface had a distinct camber and was covered with washed silt and gravel patches towards its southern edge. A machine-trench cut through the road recorded three successive gravel metallings. This evidence is consistent with that of the 1985 trial pits nearby (Fig. 8, CF13, trenches 3 and 4), which recorded the southern edge of the road and the roadside ditch. The sequence of road metallings recorded in 2008 was 0.4m thick overall, and at the same depth below modern ground level, 1.0-1.4m, as the metallings recorded in 1985 (Allen 2007, fig. 14). Trial Pit 3 was located to record the northern edge of the road, but failed to do so. The trial pit was located a little too far to the north, but in any case the area nearest the road was disturbed by a deep modern drain. Nevertheless, a sequence of three brickearth surfaces, capped with occupation deposits, immediately to the north of the road line represents the floors of successive timber buildings. Altogether, the evidence of Trial Pits 3 and 4 is consistent with that of the 1985 investigation and of an earlier excavation at Site V to the west (Fig. 8), suggesting that the road and timber buildings alongside it extended across most of the northern half of the site.

Trial Pit 5 failed to locate the suggested realignment of the Roman road to the south-east, and merely recorded a Roman buried soil. This is not conclusive, however, given the small size of the trial pit and the margin of error in projecting the road line from evidence 100m to the east of the site (Allen 2007, fig. 7). The line of this second road remains unproven.

Trial Pits 1 and 2 recorded a Roman buried soil, with patches of hardcore forming a rough surfacing, representing an external area across the south of the site. This lay to the rear of (presumed) buildings along the south side of the Roman road. The evidence of Trial Pit 2 is consistent with that of the 1985 investigation (Fig. 8, CF13, trench 2), that there was an area of rough external surfacing in the south-centre of the site.

The small quantity of Roman pottery recovered from the trial pits cannot be closely dated, but suggests that activity continued into the 3rd century, and probably also the 4th century, which is consistent with better-dated sequences from adjacent excavations.

### **7.3 Medieval, Post-medieval, Victorian and Modern (Fig. 9)**

In all the trial pits the Roman strata was sealed by the post-medieval cultivated soil previously recorded in the 1985 trial pits. In the 2008 trial pits this soil was up to 0.6m thick, contained post-medieval pottery and other artefacts, and was everywhere truncated by modern overburden. Although it is suspected that this soil may have been medieval in origin, no medieval material was recovered from the 2008 trial pits.

The cultivated soil was cut by several Victorian foundations related to the development of the site from the 1850s onwards as a water works and silk mill, as well as modern foundations and service trenches, all of which were sealed by modern car park surfaces. Trial Pit 5 in particular recorded the north-eastern corner of a brick structure that appears to have extended northwards from the existing 19th-century house on Hall Street. Early Ordnance Survey maps show a building range in this location, presumably an outbuilding on the west side of a courtyard bounded by the house to the south and the former silk mill/radio factory to the east (Fig. 9; and Allen 2007, fig. 12). Other Victorian walls were recorded in Trial Pits 3 and 4. As these walls were on the western side of the site, they presumably represent outbuildings related to the original water works of 1854 and its subsequent expansion in 1860-8 (Fig. 9; and Allen 2007, 19, and fig 12).

## **8.0 ASSESSMENT OF RESULTS**

### **8.1 Summary**

The following assessment of results refers to the open areas of site that have been evaluated by trial pits and excludes those parts of the site that are occupied by standing buildings. The trial pit evaluation has confirmed the results of the earlier archaeological desk-based assessment (Allen 2007, 17-22), which concluded that significant Roman deposits survived in most open areas of the site, except for the area of the infilled underground reservoir beneath the main car park in the west (Figs 8 and 9). The trial pits also confirmed the desk-based assessment's reconstruction of the Roman topography, model of deposit survival, and suggested areas of archaeological significance.

### **8.2 Deposit Survival**

Natural brickearth was encountered at between 1.2 and 1.5m below modern ground level in all open areas of the site and, exceptionally, at a depth of 1.8m in Trial Pit 3 towards its northern edge. The natural slope from south down to north appears originally to have been steeper at the site's northern edge. The modern car park surface across the north of the site has been raised to compensate for this, and the site forms a terrace above the lower level of the car park immediately to its north.

Roman stratigraphy survives extremely well, both because it is sealed by a 0.6m-thick layer of post-medieval cultivated soil and because of the modern raising of ground levels. The Roman road (Trial Pit 4) and the sequence of floor surfaces to its north (Trial Pit 3) comprise up to 0.6m of undisturbed multi-layered Roman stratigraphy (Fig. 8). Across the south and centre of the site Roman stratigraphy is again undisturbed, but consists of a buried soil layer 0.2-0.4m thick. This is mainly homogenous, but contains areas of hardcore forming rough external surfacing.

The trial pit evaluation failed to locate the suggested second Roman road, projected as extending south-eastwards from the first (Fig. 8). The second road line is unlikely to survive in the west of the site, near its projected junction with the original road, as this area has been extensively disturbed by the infilled underground reservoir in the west of the site (Fig. 9). There is, however, still a high probability that it exists in the yard area to the east, between the 1985 computer building and the former silk mill/radio factory.

The Roman deposits have clearly been disturbed by Victorian and modern foundations and service trenches in some areas, and will have been completely destroyed in the area of the infilled underground reservoir, which is at least 2m deep (Allen 2007, 21). However, the trial pit evaluation suggests that Roman stratigraphy in most open areas of the site has not been extensively disturbed by later intrusions. In Trial Pits 3, 4 and 5, where disturbance from modern services is considered to be most severe (Allen 2007, 21), some drains and foundations cut through the Roman levels, but others cut down to the top of the Roman stratigraphy with minimal or no disturbance (e.g. Trial Pit 4, wall 32). Trial Pits 1 and 2 in the south and west of the site recorded no modern intrusions at all, and Roman stratigraphy would be expected to survive intact in these areas.

The small size of the trial pits and their low density across the site gives only a 'keyhole' view of the Roman stratigraphy, but it appears to be sufficiently well preserved for complete or near-complete ground plans of the Roman road and related buildings to survive intact (Fig 8). Similarly, in the south and west of the site, backyard deposits survive undisturbed, and evidence of features not picked up in the trial pits, such as boundary ditches and rubbish pits, would also be expected to survive.

The very small size of the trial pits has reduced the ability to recognise prehistoric remains at the surface of the natural brickearth, especially as these are generally more ephemeral than the overlying Roman stratigraphy. Although neither prehistoric deposits nor artefacts were identified by the trial pits, their presence on site should not be ruled out. By comparison with adjacent sites, it is probable that prehistoric remains not recognised by trial pits would be visible if larger areas were exposed (Allen 2007, 17-18).

The absence of large-scale ground reduction across the site means that the post-medieval cultivated soil survives largely intact, as it was recorded to a thickness of at least 0.5m in all the trial pits. The brick foundations of outbuildings related to the 1858 silk mill, and the 1854 water works and its expansion in the 1860s, survive, cut through the cultivated soil, but it appears that any related surfaces have been truncated by modern concrete slabs.

### **8.3 Significance**

The good preservation of Roman stratigraphy across most open areas of the site increases its overall significance. The trial pit evaluation has confirmed the line of the Roman road across the north of the site (Trial Pit 4), as well as the presence of timber buildings on its north side (Trial Pit 3) and presumably also to the south (Fig. 8). This means that the layout of road and roadside buildings previously seen at Site V to the west extends across most of

the north of the site. This evidence represents a long, unbroken sequence of street frontage development, from the late 1st to 4th centuries, in one of the main commercial areas of the Roman settlement (Allen 2007, 9-12 and figs 3-10). These remains are therefore of high significance. The external area across the south of the site (Trial Pits 1 and 2) represents a backyard to the south of presumed buildings on the south side of the Roman road (Fig. 8). The backyard area is also of high significance, as features such as boundary ditches, yard surfaces, ovens and rubbish pits, all of which were recorded at Sites V and R to the west (Fig. 8), help interpret the plots occupied by the roadside buildings. In addition, ditches and pits often contain large quantities of artefacts (e.g. pottery and metalwork) and environmental evidence (e.g. animal bone and charred plant remains) that provide good evidence both for dating the site and understanding aspects such as the site's economy, on-site manufacturing processes, and the diet of the inhabitants.

Although the trial pit evaluation failed to locate the projected second Roman road (Fig. 8), the potential presence of this road on the site is highly significant for understanding the topographical development of this part of the Roman settlement. Recording and dating the second Roman road would enable the suggested change in road alignments at Hall Street to be fully understood in relation to the development of the Roman temple precinct immediately to the east of the site, as well as the settlement's eastern suburb (Allen 2007, 18 and fig. 7).

The post-medieval cultivated soil is of low significance. The foundations of structures related to the original 1854 water works and its subsequent expansion in the 1860s, and the 1858 silk mill, are of moderate significance, as recording them will help complete the ground plan of these important Victorian industrial developments.

Although not part of the trial pit evaluation, the three 19th-century buildings on site, the pump house of the original water works, the silk mill/radio factory and the manager's house on Hall Street, are of considerable historical importance. The silk mill/radio factory is Grade II listed, and although its internal machinery and fittings have been stripped out, the structure is significant for its former use by Marconi as the world's first radio electronics factory (Allen 2007, 20). The historic buildings are also significant for being located within the Moulsham Conservation area.

#### **8.4 Areas of Archaeological Significance and Potential Mitigation**

As there is currently no design information on the proposed redevelopment, it is only possible to assess areas of potential archaeological significance as a basis for further assessment of development impacts and mitigation measures at a future date. However, some constraints

and impacts from existing and demolished buildings and other structures across the site can be assessed at this stage as a first attempt at defining areas of archaeological significance and constraints (Fig. 9).

The archaeological desk-based assessment has recommended that the site's three historic buildings, the pump house, the silk mill/radio factory and the house on Hall Street (Fig. 9) should be retained in any redevelopment (Allen 2007, 20). It is assumed that preservation of the historic buildings will be a central part of the development design, involving no major groundworks and with no requirement for below-ground archaeological investigation.

The areas of archaeological significance across site that may require mitigation measures are limited to the car parks and access routes, excluding the area of the infilled underground reservoir beneath the main car park in the west (Fig. 9). There will be some disturbance in the north of these areas from the foundations of demolished 19th- and 20th-century buildings, but the trial pits have shown that this disturbance is not extensive and that Roman stratigraphy will survive between the later intrusions. The area of the 1985 computer building may also need to be considered if the development plans include its demolition to allow new construction. While the open spaces have been evaluated by the trial pits, this has not been possible for the 1985 building, and if demolition and new build is planned then further evaluation by trial pits would be necessary to assess the survival of archaeological deposits within its footprint.

To summarise, Roman deposits of high significance are known to survive with relatively little disturbance in most open areas of the site, sealed by a post-medieval cultivated soil, which is cut by the foundations of 19th-century industrial buildings. The main areas of archaeological significance, which should be further assessed for construction impacts to formulate mitigation measures, are as follows (Fig. 9):

1. An L-shaped area along the western and southern limits of the site, measuring 30 x 10m and 20 x 5m.
2. An irregular east-west strip around 20 x 10m to the north and north-west of the 1985 computer building.
3. A north-south strip around 15 x 10m between the old silk mill/radio factory and the 1985 computer building.

4. The footprint of the 1985 computer building should be evaluated by trial pits to assess deposit survival if it is decided to demolish and build new in this part of the site.
5. It is recommended that the existing historic buildings on site be retained in any scheme of redevelopment, and that the Chelmsford Borough Council's historic buildings advisor be consulted over any proposed new works to be carried out on them.

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The fieldwork was carried out by Patrick Allen, who supervised the work, and David Maynard. The finds were processed by Phil McMichael and were reported on by Joyce Compton and Tony Blowers. The illustrations were prepared by Andrew Lewsey. The project was managed by Patrick Allen and was monitored by Teresa O'Connor of the Essex County Council Historic Environment Management team on behalf of the local planning authority.

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## APPENDIX 1: FIELDWORK DATA

<b>Context No.</b>	<b>Feature</b>	<b>Trench</b>	<b>Type</b>	<b>Description</b>	<b>Date</b>
001		1-5	Overburden	Tarmac/concrete/hoggin	Modern
002		1	Cultivated soil	Dk greyish brown clayey silt	Post-medieval
003		1	Buried soil	Yellowish brown clayey silt	Roman
004		1	Natural	Brickearth	
005		1	Levelling	Clay	Modern
006		2	Cultivated soil	Dk greyish brown clayey silt	Post-medieval
007		2	Buried soil	Yellowish brown clayey silt, daub	Roman
008		2	Natural	Brickearth	
009		5	Cultivated soil	Dk greyish brown clayey silt	Post-medieval
010		5	Wall	Stock and red bricks, cream mortar	Victorian
011		5	Wall	Stock and red bricks, cream mortar	Victorian
012		5	Buried soil	Yellowish brown clayey silt	Roman
013		5	Natural	Brickearth	
014		5	Building	Walls 10 and 11	Victorian
015		3	Demolition	Stock & red brick rubble	Modern
016		3	Accumulation	Dk grey/black ash	Modern
017	017	3	Wall	Stock and red bricks, cream mortar	Victorian
018	017	3	Fill of 019	Mixed silt and stone/brick rubble	Victorian
019	017	3	Found. trench	Square profile, in section only	Victorian
020	020	3	Drain trench	Not excavated	Modern
021	020	3	Fill of 20	Clay-silt with brick/tile rubble	Modern
022		3	Cultivated soil	Dk greyish brown clayey silt	Post-medieval
023		3	Accumulation	Grey and yellow-brown clayey silt	Roman
024	017	3	Wall	Gravel bedding for wall 17	Modern
025		3	Surface	Yellowish brown clayey silt	Roman
026		3	Accumulation	Brownish-grey sandy clayey silt	Roman
027		3	Surface	Yellowish brown clayey-silt	Roman
028		3	Accumulation	Greyish-brown clayey-silt	Roman
029		3	Surface	Grey-brown clay-silt, brickearth lenses	Roman
030		3	Levelling	Grey and yellowish brown clayey silt	Roman
031		3	Natural	Brickearth	
032	032	4	Wall		Victorian
033	032	4	Found. trench		Victorian
034	034	4	Foundation	Brick/concrete base with stop cock	Modern
035	034	4	Found. trench	Construction cut for 034	Modern
036		4	Cultivated soil	Dk grey clayey sandy silt	Post-medieval
037	038	4	Finds = 38	Cleaning above 38	Roman
038		4	Road edge	Dk grey sandy silt and gravel mix	Roman
039		4	Road edge	Dk grey sandy silt, moderate pebbles	Roman
040		4	Road	Orange-yellow gravel metalling	Roman
041	042	4	Fill of 42	Yellow/grey-brown mortar and silt mix	Modern
042	042	4	Robber trench	Square profile, recorded in section	Modern
043		4	Road	Lt grey-yellow gravel metalling	Roman
044		4	Road	Red-brown gravel metalling	Roman
045		4	Levelling	Lt grey silty sand, rare charcoal	Roman
046		4	Natural	Brickearth	

## APPENDIX 2: FINDS DATA

### Finds Data by Context

Context	Feature	Count	Weight	Description	Date
2	Cultivated soil	3	24	Animal bone; humerus, distal end, ?deer; rib, proximal end, large mammal; fragment	-
		1	42	Shell; oyster, one valve	-
		2	14	Glass; dark green bottle body sherds (Discarded)	Post med.
		2	82	Roof tile fragments	Post med.
		2	34	Pottery; body sherds	Modern
3	Buried soil	1	134	Iron object, T-shaped	-
		1	10	Iron nail	-
		2	1	Iron and bone object	-
		26	570	Animal bone; radius, cattle, distal end unfused; astragalus, cattle and horse; calcaneus, cattle; metatarsus and metacarpus, distal ends, cattle; molar, sheep/goat; horse hoof; fragments	-
		9	1110	Brick and tile fragments; two are buff; several small abraded pieces may be post-medieval (4/76g small pieces discarded)	Roman
		1	6	Pottery; body sherd	Post med.
		31	645	Pottery; Oxford white ware mortarium base sherd and spall; Nene Valley self-coloured mortarium rim sherd (not D14); Nene Valley colour-coated beaker rim and body sherds; jar and dish rim, base and body sherds, various fabrics	Roman
6	Cultivated soil	1	104	Roof tile fragment	Post med.
		3	515	Brick and tile fragments	Roman
		1	46	Pottery; lower wall sherd, ?large flowerpot	Post med.
7	Surface	1	6	Vitrified/burnt material	-
		1	6	Glass; window sherd, greenish-colourless, matt-glossy	Roman
		5	625	Brick and tile fragments, inc box-flue (combed)	Roman
		10	310	Pottery; B3 dish rim/base, with hole drilled in the wall, black-surfaced ware; rim and body sherds, various fabrics	Roman
9	Cultivated soil	1	2	Animal bone; metapodial, proximal end, horse	-
		1	4	Glass; mineral water bottle body sherd, surface iridescence (Discarded)	Post med.
12	Surface	3	40	Pottery; base and body sherds, sandy grey and black-surfaced wares	Roman
26	Accumulation	4	42	Pottery; dish rim sherd, samian; body sherds, sandy grey and black-surfaced wares	Roman
27	Surface	1	16	Slag	Roman
		1	16	Pottery; body sherd, Colchester buff ware	
28	Accumulation	3	10	Animal bone; fragments, inc split rib	-
		5	28	Pottery; rim and body sherds, black-surfaced ware; body sherd, Colchester buff ware	Roman
29	Surface	4	102	Pottery; storage jar body sherd; body sherds, buff and black-surfaced wares	Roman
37	Finds	1	14	Pottery; jar rim sherd, sandy grey ware	Roman

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
38	Road	3 4	164 18	Tile fragments, inc box-flue (incised) Pottery; mortarium flange fragments, buff ware	Roman Roman

## Finds Data by Trial Pit

### Trial Pit 1

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
2	Cultivated soil	3 1 2 2 2	24 42 14 82 34	Animal bone; humerus, distal end, ?deer; rib, proximal end, large mammal; fragment Shell; oyster, one valve Glass; dark green bottle body sherds (Discarded) Roof tile fragments Pottery; body sherds	- - Post med. Post med. Modern
3	Buried soil	1 1 2 26  9  1 31	134 10 1 570  1110  6 645	Iron object, T-shaped Iron nail Iron and bone object Animal bone; radius, cattle, distal end unfused; astragalus, cattle and horse; calcaneus, cattle; metatarsus and metacarpus, distal ends, cattle; molar, sheep/goat; horse hoof; fragments Brick and tile fragments; two are buff; several small abraded pieces may be post-medieval (4/76g small pieces discarded) Pottery; body sherd Pottery; Oxford white ware mortarium base sherd and spall; Nene Valley self-coloured mortarium rim sherd (not D14); Nene Valley colour-coated beaker rim and body sherds; jar and dish rim, base and body sherds, various fabrics	- - - -  Roman  Post med. Roman

### Trial Pit 2

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
6	Cultivated soil	1 3 1	104 515 46	Roof tile fragment Brick and tile fragments Pottery; lower wall sherd, ?large flowerpot	Post med. Roman Post med.
7	Surface	1 1  5 10	6 6  625 310	Vitrified/burnt material Glass; window sherd, greenish-colourless, matt-glossy Brick and tile fragments, inc box-flue (combed) Pottery; B3 dish rim/base, with hole drilled in the wall, black-surfaced ware; rim and body sherds, various fabrics	- Roman  Roman Roman

### Trial Pit 3

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
26	Accumulation	4	42	Pottery; dish rim sherd, samian; body sherds, sandy grey and black-surfaced wares	Roman
27	Surface	1 1	16 16	Slag Pottery; body sherd, Colchester buff ware	Roman
28	Accumulation	3 5	10 28	Animal bone; fragments, inc split rib Pottery; rim and body sherds, black-surfaced ware; body sherd, Colchester buff ware	- Roman

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
29	Surface	4	102	Pottery; storage jar body sherd; body sherds, buff and black-surfaced wares	Roman

#### **Trial Pit 4**

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
37	Finds	1	14	Pottery; jar rim sherd, sandy grey ware	Roman
38	Road	3	164	Tile fragments, inc. box-flue (incised)	Roman
		4	18	Pottery; mortarium flange fragments, buff ware	Roman

#### **Trial Pit 5**

<b>Context</b>	<b>Feature</b>	<b>Count</b>	<b>Weight</b>	<b>Description</b>	<b>Date</b>
9	Layer	1	2	Animal bone; metapodial, proximal end, horse	- Post med.
		1	4	Glass; mineral water bottle body sherd, surface iridescence (Discarded)	
12	Layer	3	40	Pottery; base and body sherds, sandy grey and black-surfaced wares	Roman

### **APPENDIX 3: CONTENTS OF ARCHIVE**

One A4 ring-binder containing:

- 1 Copy of this report
- 1 Copy of the archaeological brief
- 1 Copy of the written scheme of investigation
- 1 Site survey drawing
- 1 Copy of the finds report, including archive tables
- 1 Context register sheet
- 5 Trench recording sheets
- 46 Context recording sheets
- 1 Plan register sheet
- 1 Section register sheet
- 3 Levels register sheets
- 5 Plan drawing sheets
- 5 Section drawing sheets
- 1 Computer disc containing pdf copy of report and 8 digital colour photographs

Held separate from ring-binder:

- 1 Box of finds

## APPENDIX 4: ESSEX HISTORIC ENVIRONMENT RECORD SUMMARY

<b>Site name/Address:</b> Essex and Suffolk Water Offices, Hall Street, Chelmsford	
<b>Parish:</b> Chelmsford	<b>District:</b> Chelmsford
<b>NGR:</b> TL 7097 0633	<b>Site Code:</b> CF 60
<b>Type of Work:</b> Trial pit evaluation	<b>Site Director/Group:</b> Patrick Allen Essex CC Field Archaeology Unit
<b>Date of Work:</b> 15-18 September 2008	<b>Size of Area Investigated:</b> 5 2 x 2m trial pits
<b>Location of Finds/Curating Museum:</b> Chelmsford Museum	<b>Client:</b> Chelmsford Borough Council
<b>Further Work Anticipated?:</b> To be decided	<b>Related HER Nos.:</b> 5940-1
<b>Final Report:</b> Essex Archaeology and History Summary	
<b>Periods represented:</b> Roman, post-medieval, modern	
<p><b>SUMMARY OF FIELDWORK RESULTS:</b> An archaeological evaluation by trial pits was carried out on the site of the Essex and Suffolk Water Company offices at Hall Street, Chelmsford. An earlier archaeological desk-based assessment concluded that the site contained significant remains related to Roman Chelmsford (Allen 2007). The trial pit evaluation was designed to establish the degree of survival of Roman deposits across the site area, to enable an archaeological mitigation strategy to be developed as part of a future planning application for redevelopment.</p> <p>The earlier desk-based assessment identified the site as lying within the area of Roman Chelmsford, a posting station (mansio) and roadside settlement established on the London-Colchester road south of the crossing of the rivers Can and Chelmer. The assessment showed that a Roman gravelled road crossed the north of the site on a west-north-west to east-south-east alignment, forming a side-road of the London-Colchester road. The side-road was first laid out in c. AD 70-75, and comprised a sequence of road metallings flanked on both sides by timber buildings and yards, dating from the late 1st to late 4th centuries. The line of the road was confirmed by previous trial pit recording in 1985 before construction of a new computer building on site. Excavations to the east of the site suggest that the road was realigned to the south-east in the early 2nd century to avoid the temple precinct.</p> <p>Roman stratigraphy survived in all five trial pits excavated in 2008. Trial Pit 4 identified the metallings of the Roman road running along the site's northern edge, as previously recorded in the 1985 trial pits. In Trial Pit 3 a sequence of brickearth surfaces immediately to the north of the road represents the floors of successive timber buildings. Trial Pit 5 failed to locate the suggested realignment of the Roman road to the south, but recorded a Roman buried soil. Trial Pits 1 and 2 also recorded a Roman buried soil, with patches of rough surfacing, representing an external area across the south of</p>	

the site, to the rear of (presumed) buildings along the south side of the Roman road. The small quantity of Roman pottery recovered cannot be closely dated, but suggests that Roman activity continued into the 3rd century, and probably also the 4th century, which is consistent with better-dated sequences from adjacent excavations.

In all the trial pits the Roman strata were sealed by the medieval/post-medieval cultivated soil previously recorded in the 1985 trial pits. This soil was up to 0.6m thick, contained post-medieval pottery and other artefacts, and was everywhere overlain by modern overburden or car park surfacing.

The trial pit evaluation has established that Roman stratigraphy is well preserved in all areas outside the existing buildings and the infilled underground reservoir in the west of the site. It confirms the conclusions of the desk-based assessment that the most likely areas of surviving Roman remains are:

1. At the southern and western limits of the current car park in the west of the site;
2. Across the north of the site, especially north of the 1985 computer building; and
3. Between the 1985 building and the former silk mill/radio factory to its east.

In all these areas the Roman strata was preserved undisturbed beneath the cultivated soil horizon. The Roman strata was between 0.2 and 0.6m thick, and was encountered at a depth of between 1.0 and 1.5m over most of the site and, exceptionally, between 1.0 and 1.8m along the site's northern edge.

The desk-based assessment also identified a group of historically important 19th-century industrial buildings still standing on the site. These are relating to the original water works of 1854-68 and John Hall's silk mill of 1858, converted by Guglielmo Marconi in 1899 into the world's first radio electronics factory. These buildings have been assessed separately and fall outside the scope of the trial pit evaluation. However, Trial Pits 3, 4 and 5 recorded the foundations of brick outbuildings related to the original water works and the silk mill/radio electronics factory.

***Previous Summaries/Reports:-***

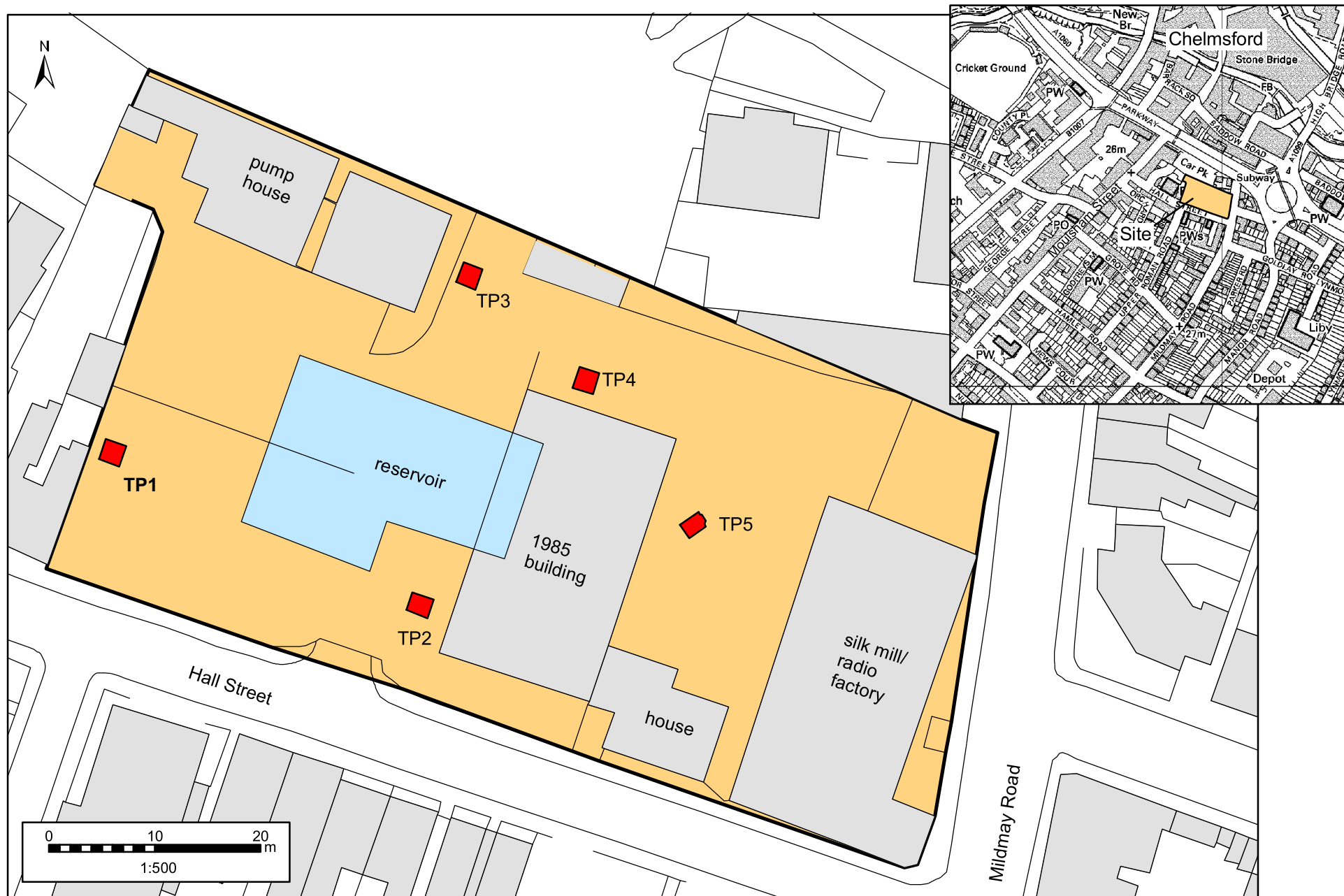
Allen, P.T., 2007: *Essex and Suffolk Water Offices, Hall Street, Chelmsford, Essex. Archaeological Desk-Based Assessment*. Essex CC FAU report **1767**

Andrews, D. and Gee, M., 1985: *Essex Water Authority Site, Hall Street, Chelmsford (CF13)*. Unpublished report in the Essex Historic Environment Record

Andrews, D. and Gee, M., 1986: Chelmsford, Hall Street, in Priddy D.A. (ed.), *Excavations in Essex 1985, Essex Archaeol. Hist.* vol. 17, 144

***Author of Summary:*** Patrick Allen

***Date of Summary:*** April 2009



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Fig.1. Location of trial pits (1-5)

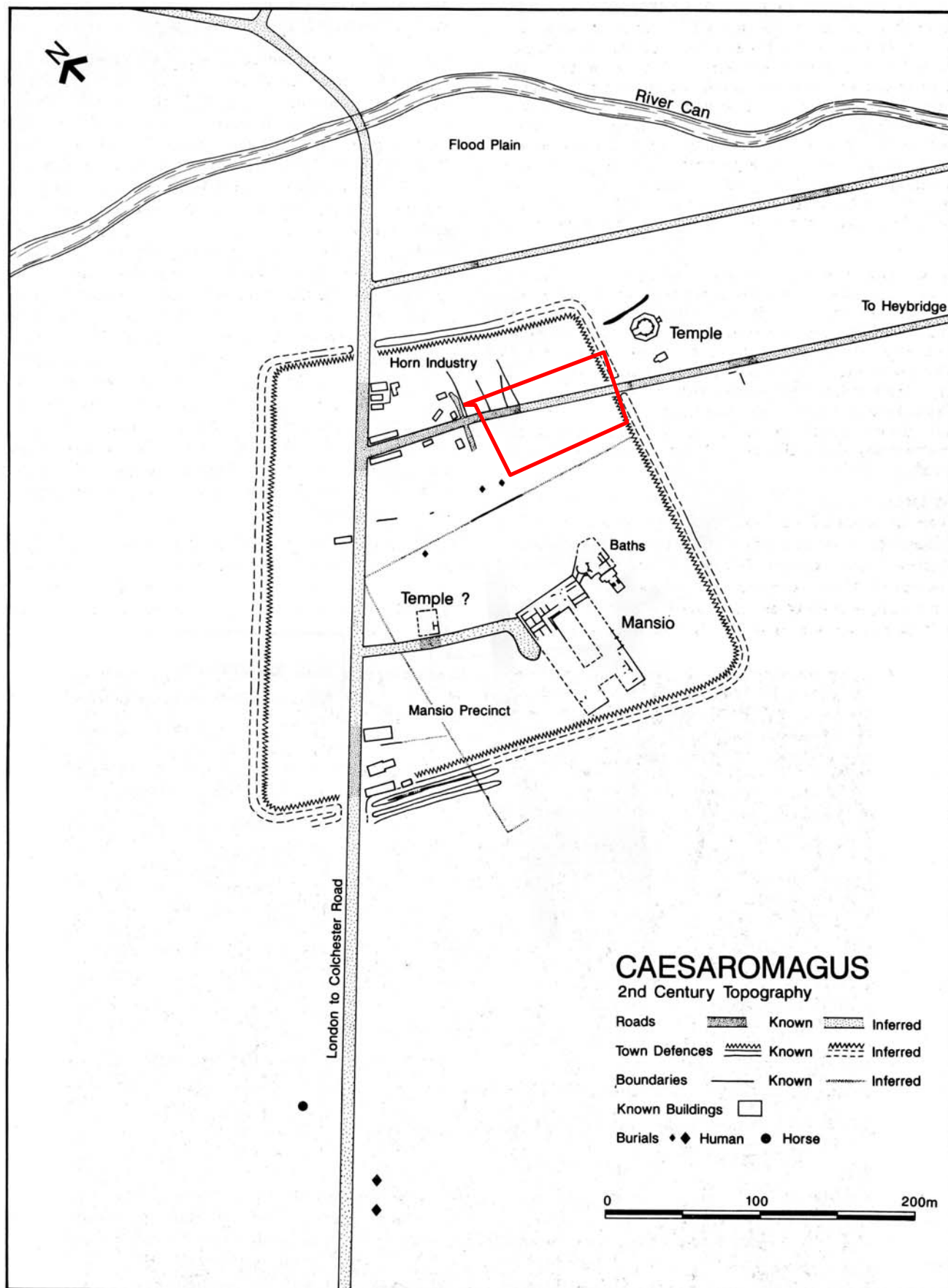


Fig.2. Roman Chelmsford, 2nd century topography, with the octagonal temple added in the 4th century (from Wickenden 1996)

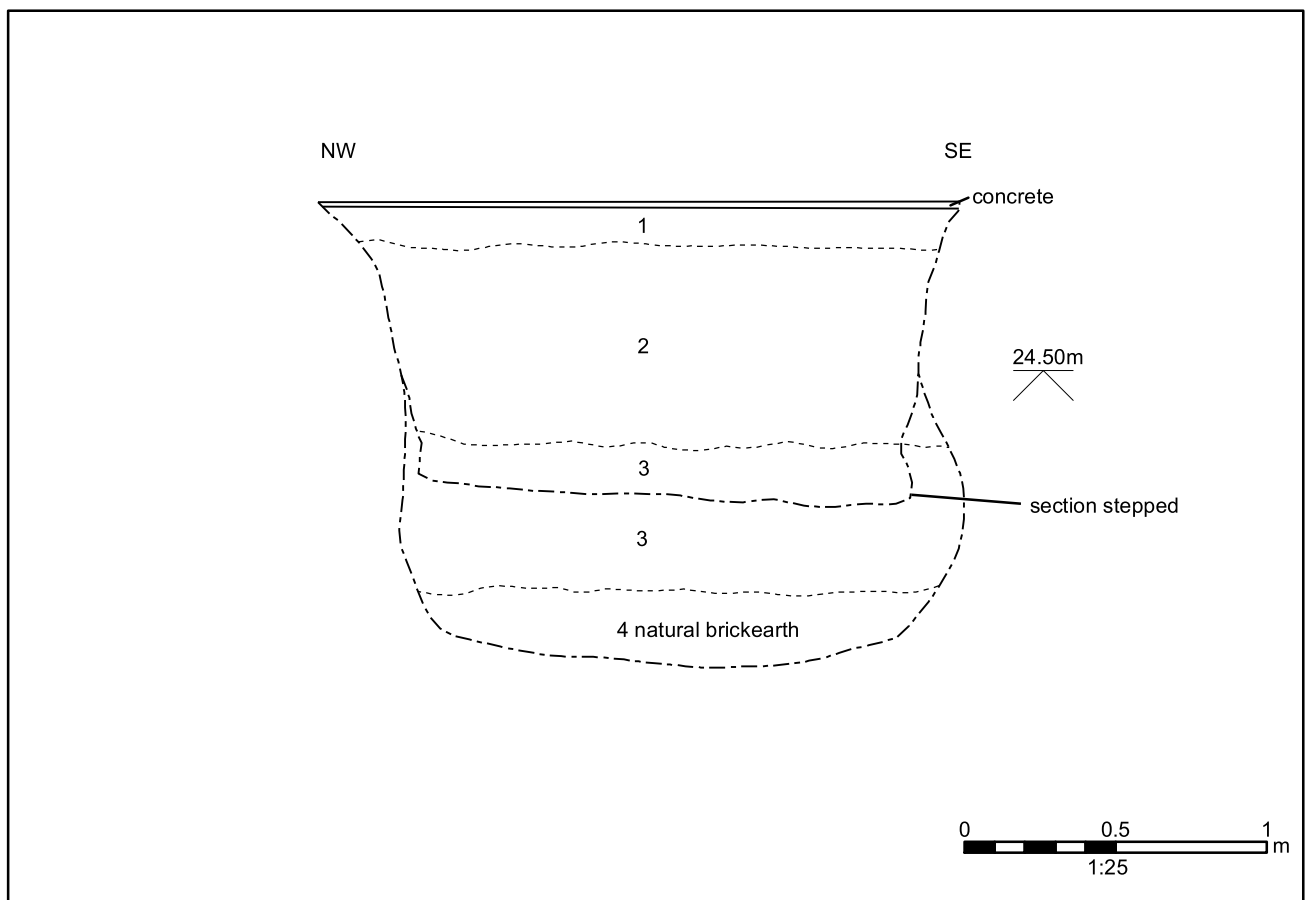
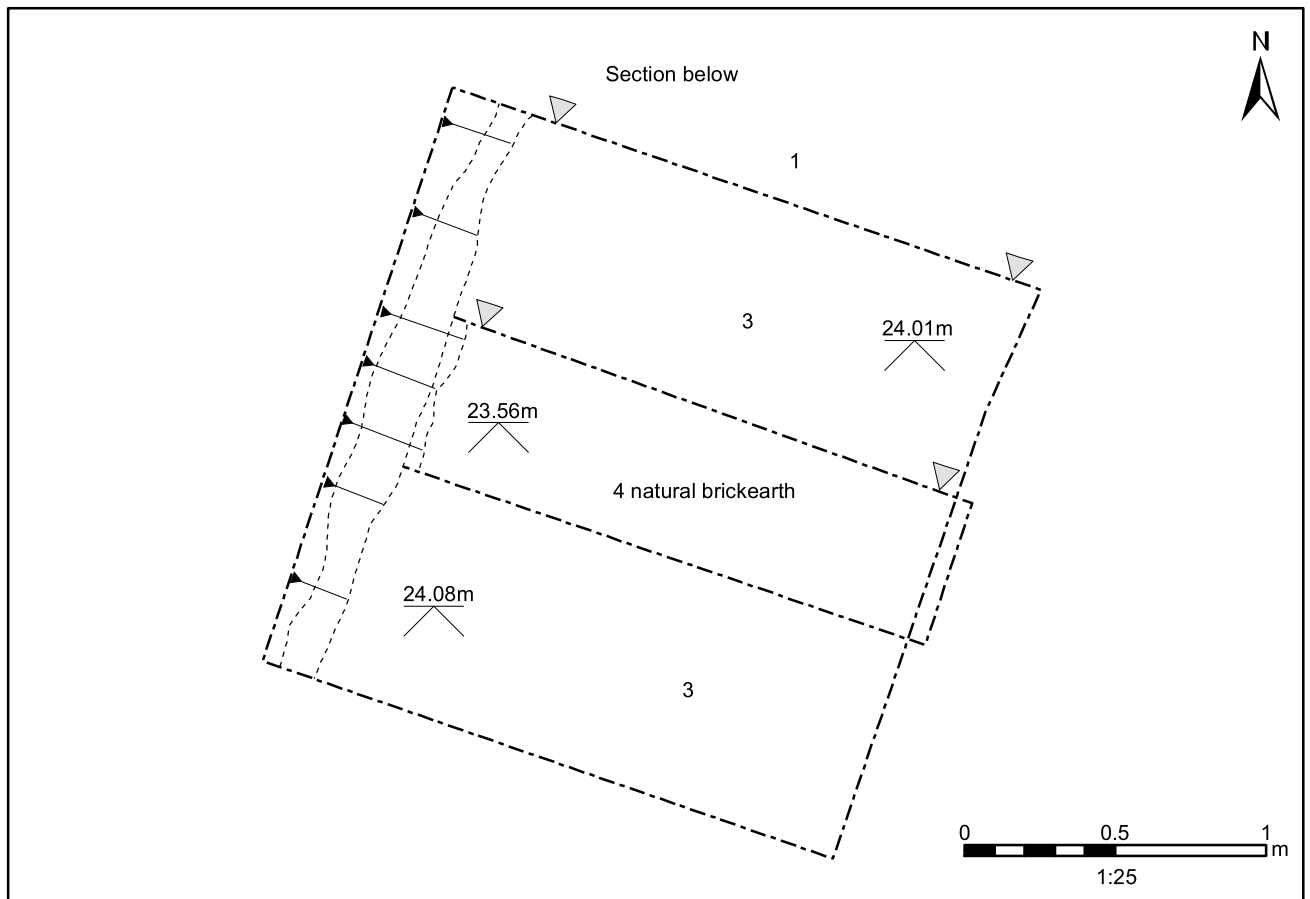


Fig.3. Trial pit 1, plan and section

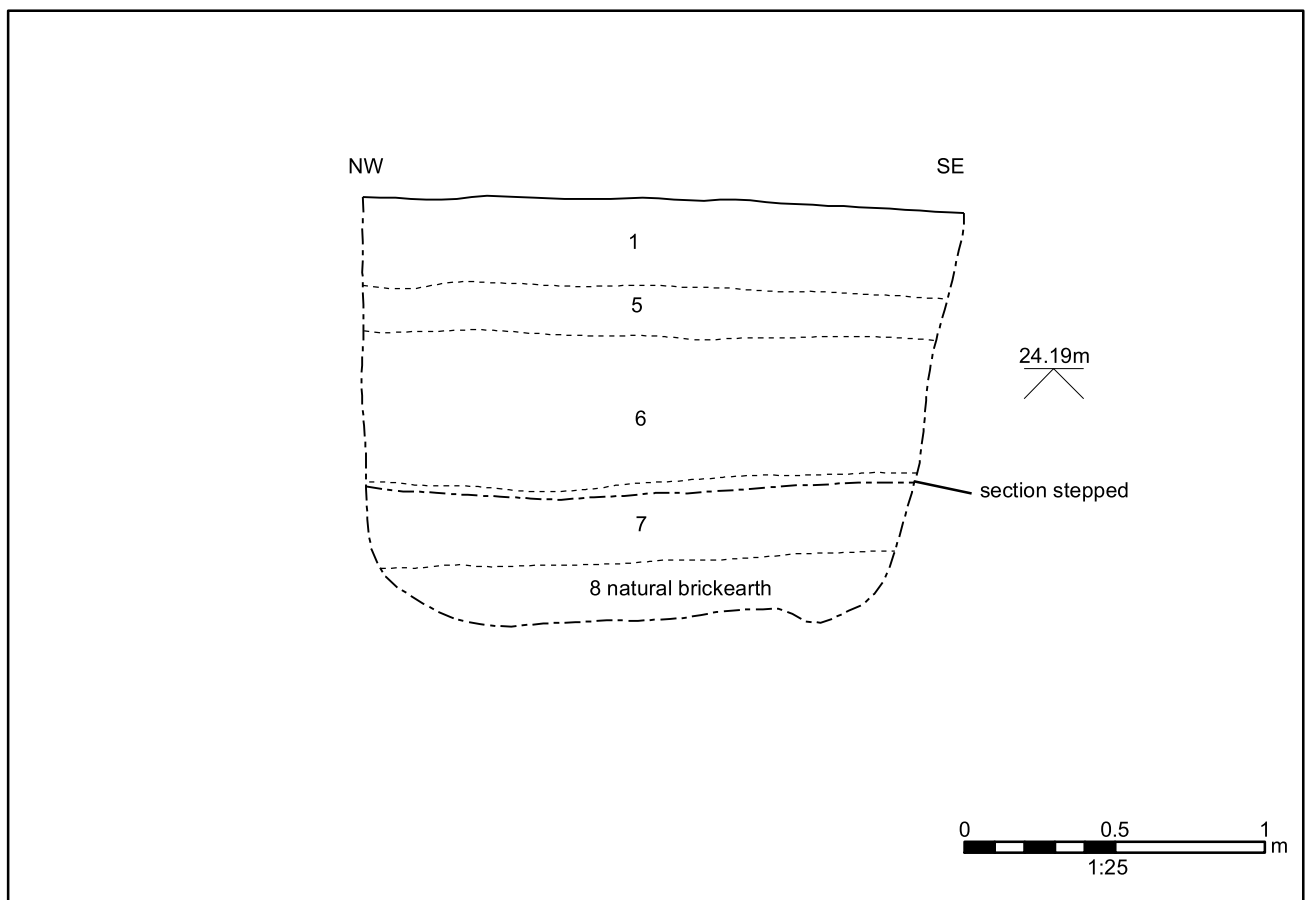
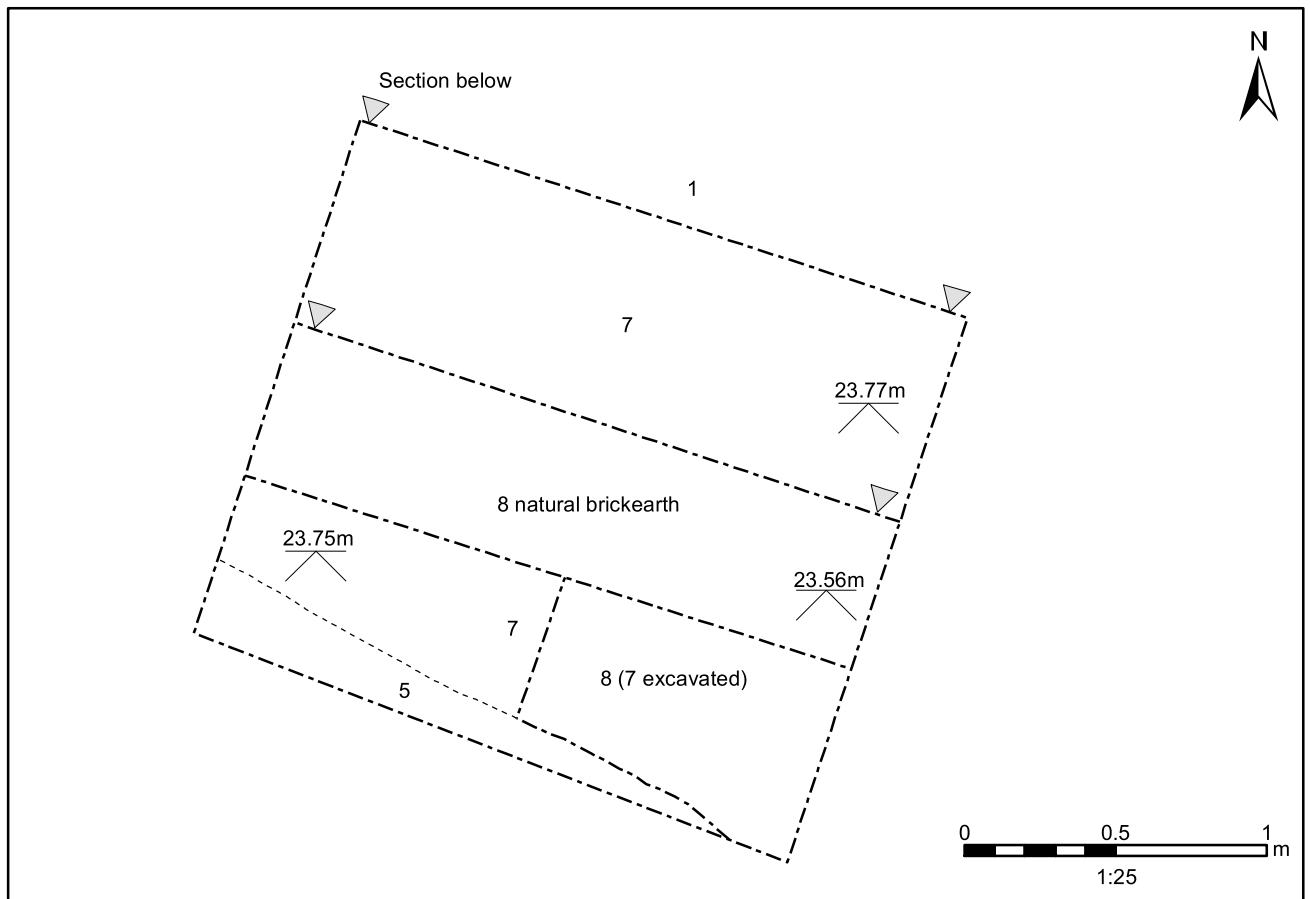


Fig.4. Trial pit 2, plan and section

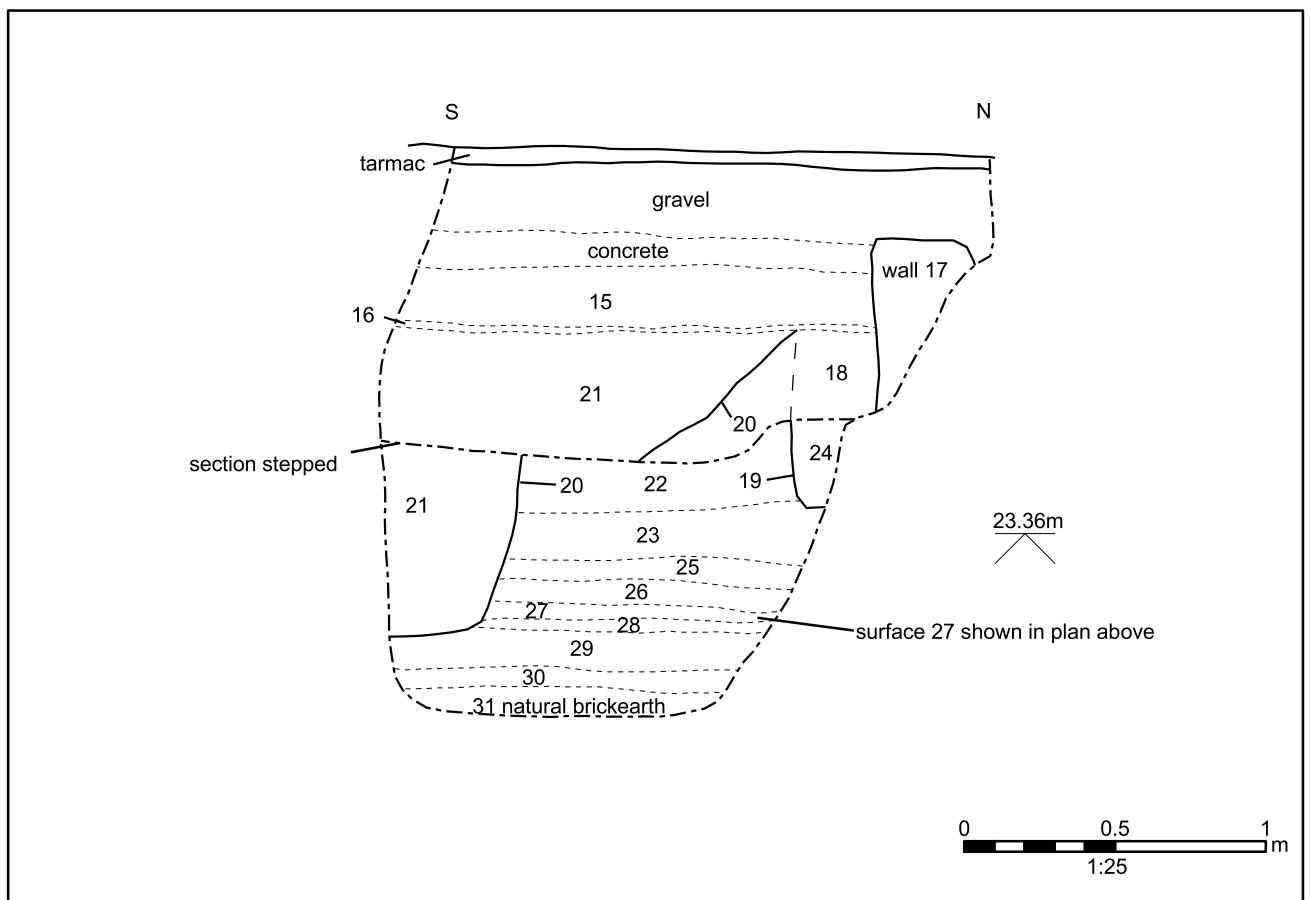
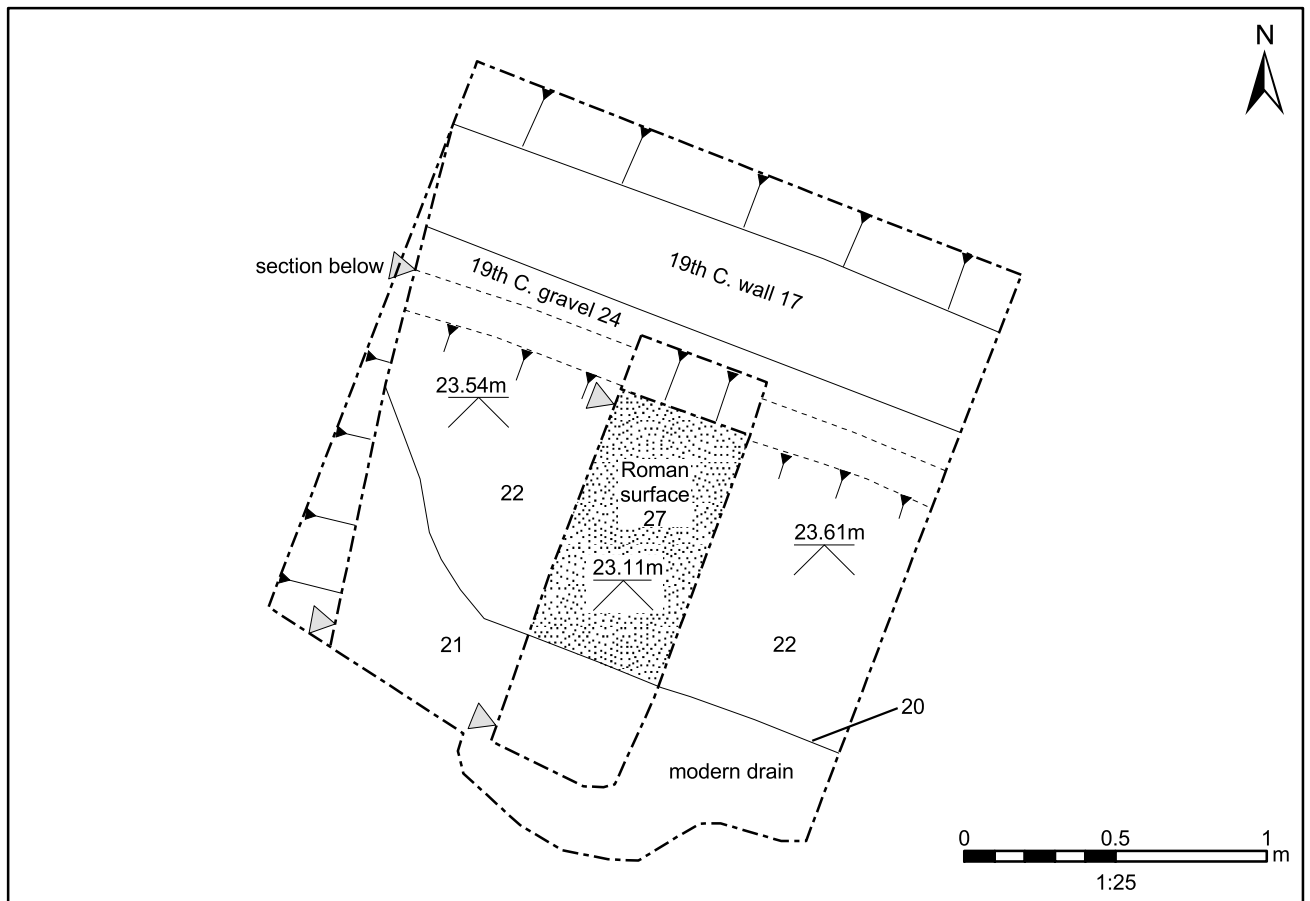


Fig.5. Trial pit 3, plan and section

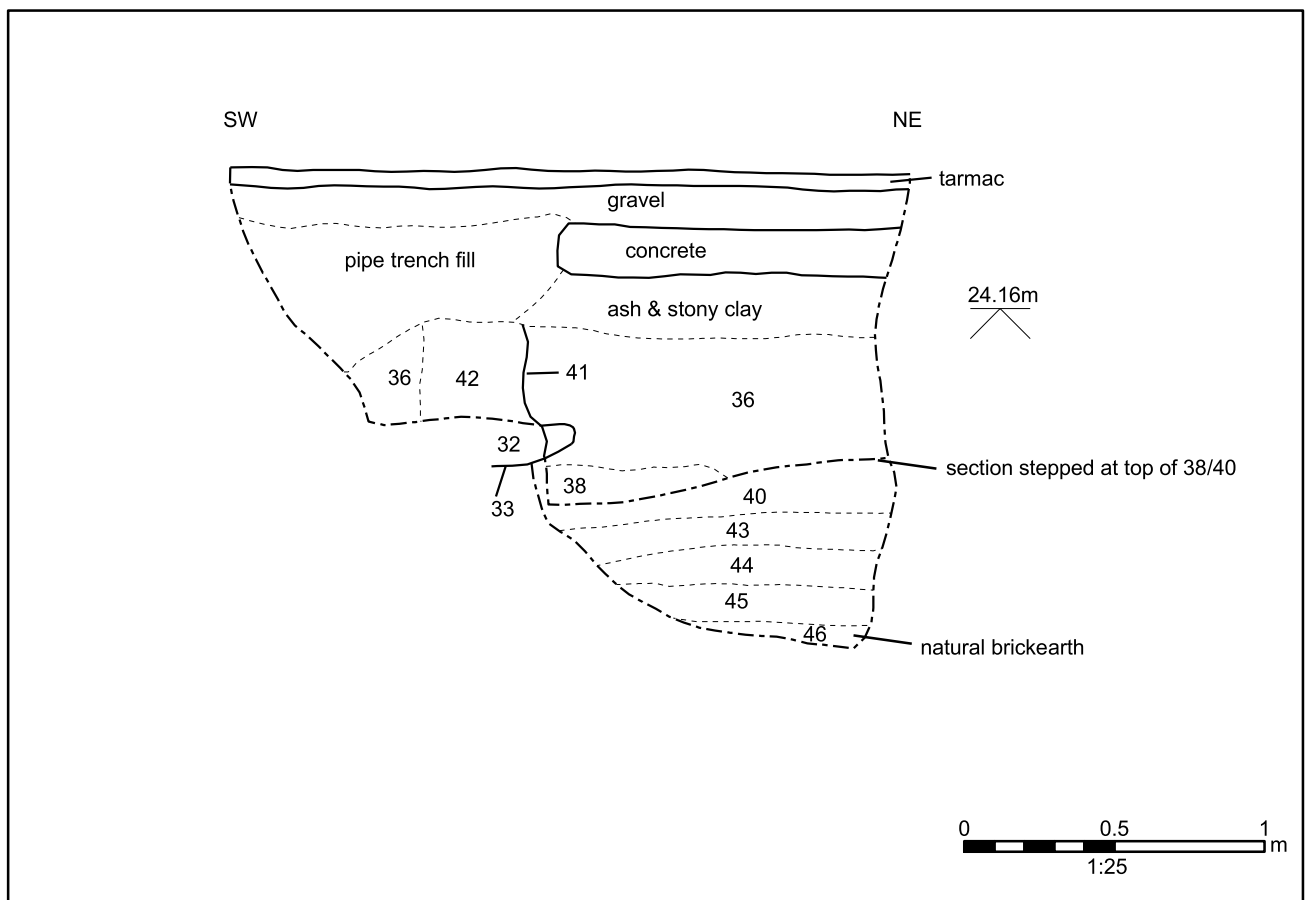
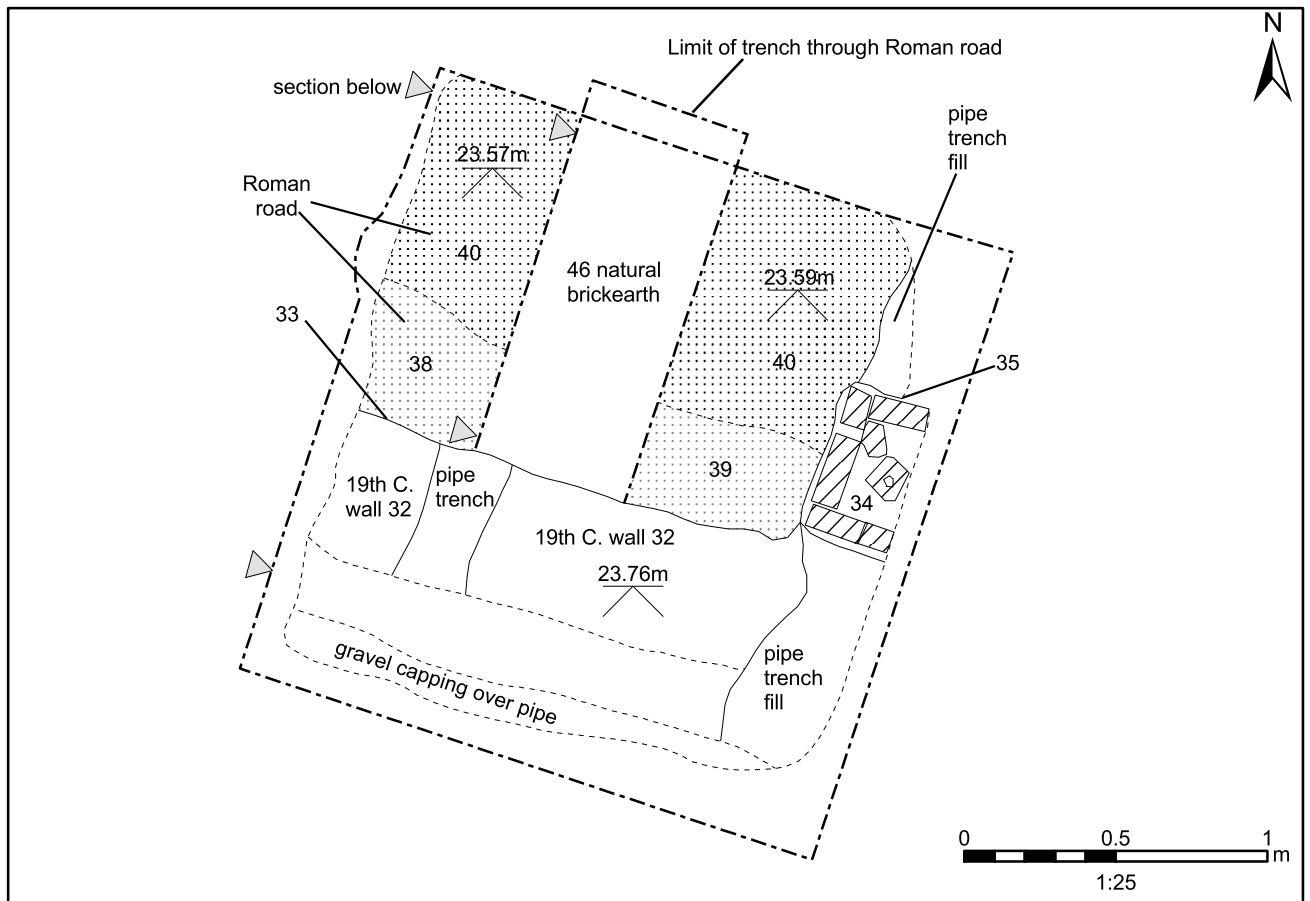


Fig.6. Trial pit 4, plan and section

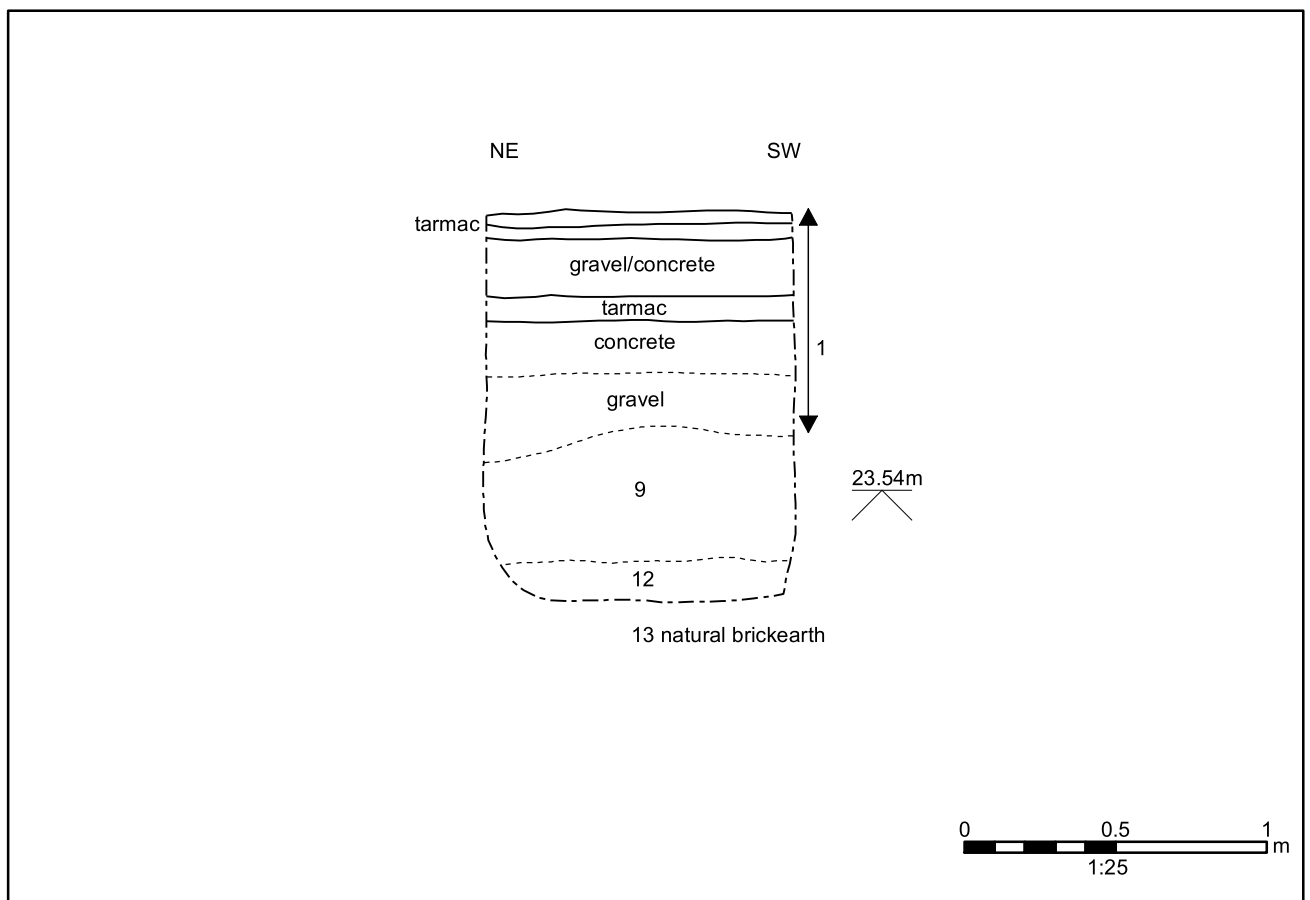
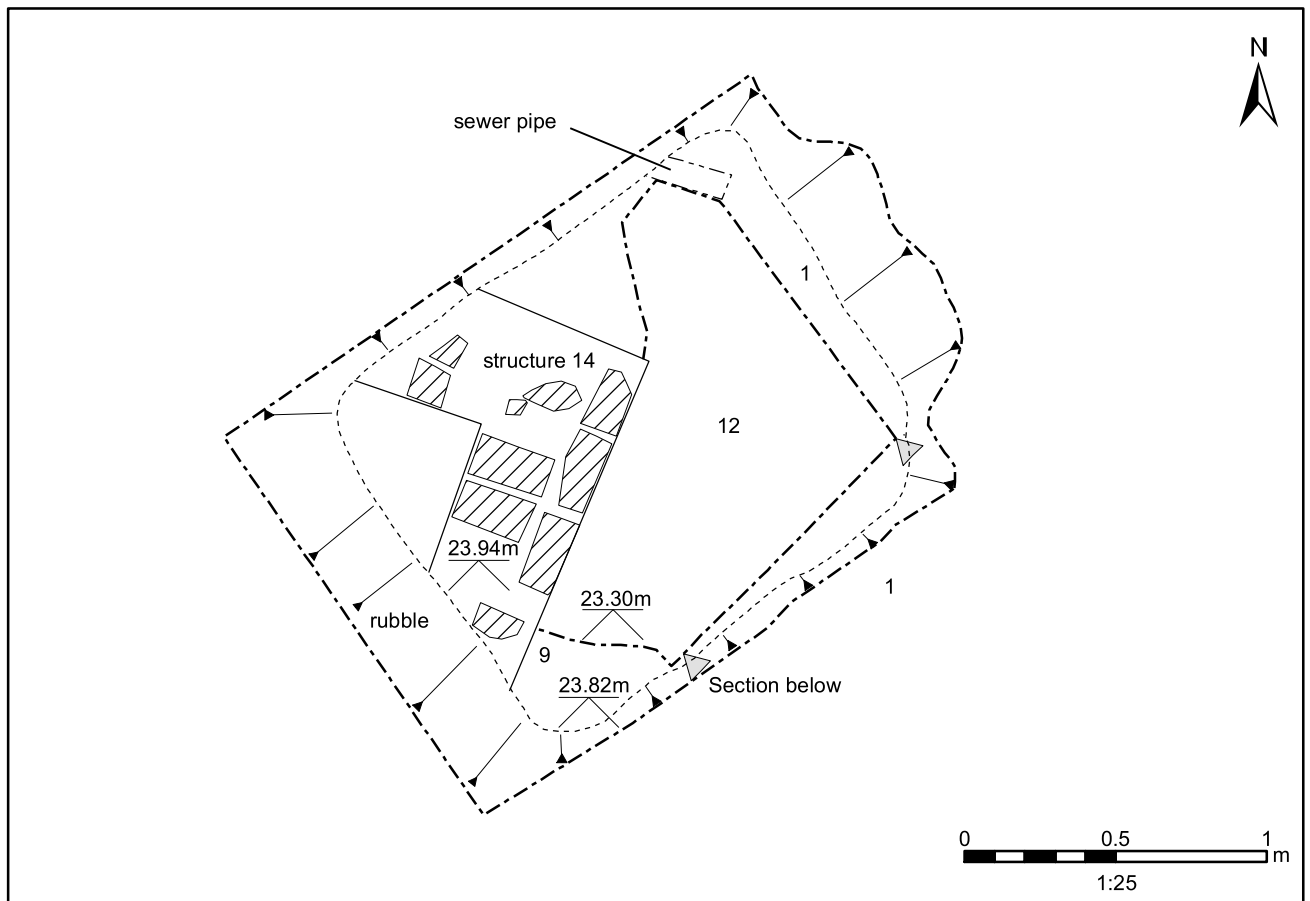


Fig.7. Trial pit 5, plan and section

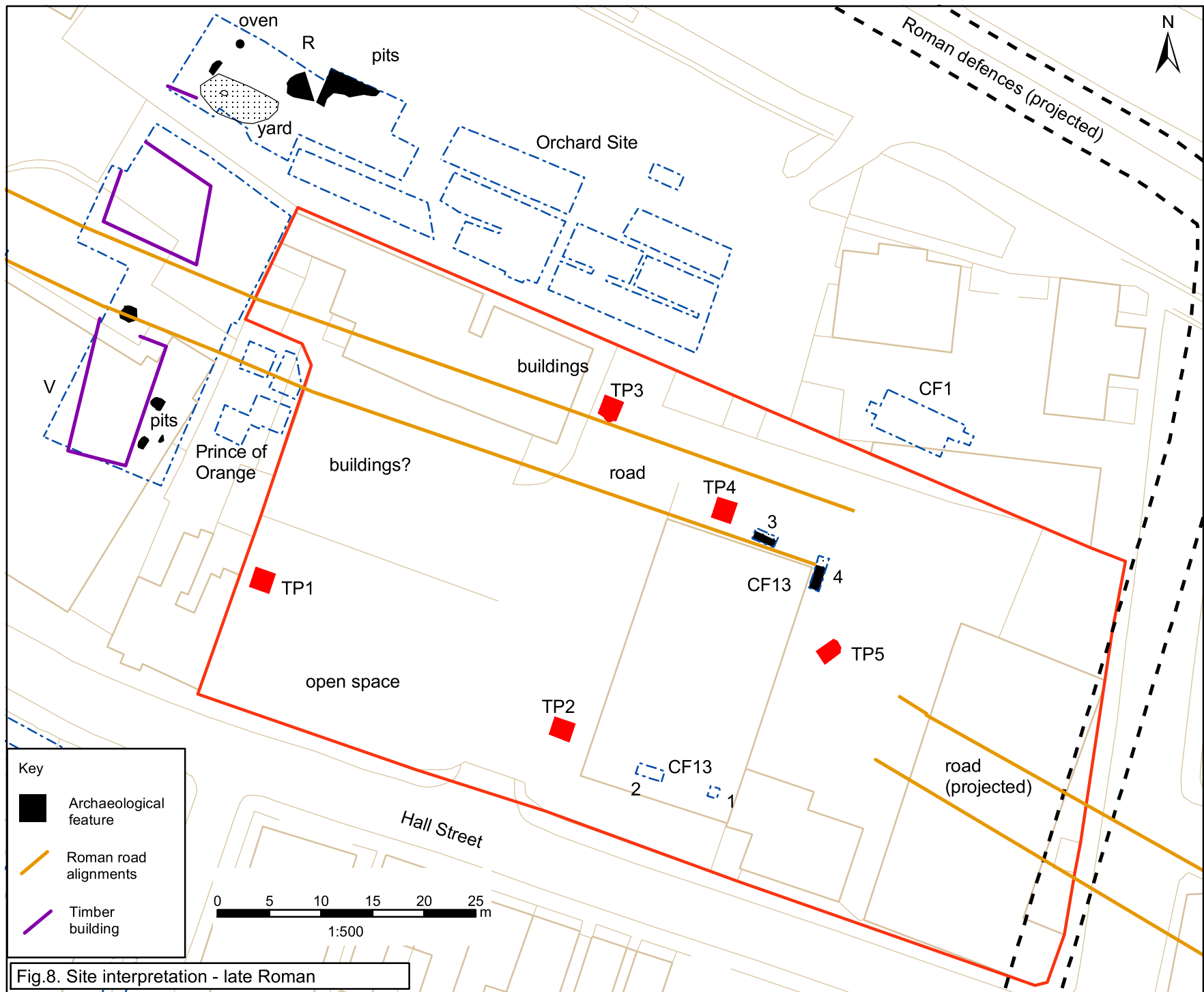
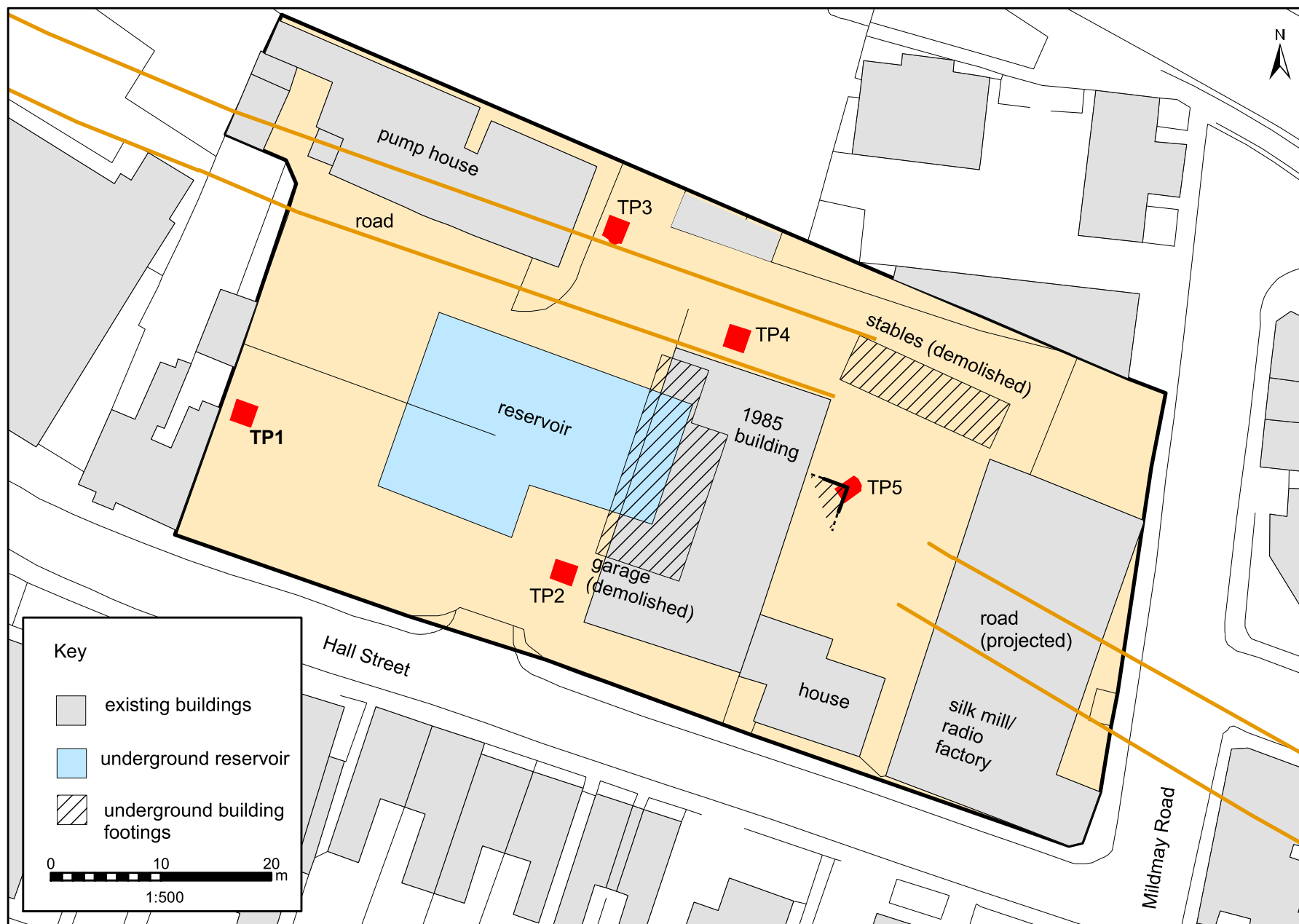


Fig.8. Site interpretation - late Roman



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Fig.9. Site plan showing constraints, trial pit locations and Roman roads



Plate 1. Trial Pit 2 looking east, showing Roman buried soil 7 (in plan), overlying natural brickearth (base of slit trench) and sealed by post-medieval cultivated soil (in section). Scale 1.2m



Plate 2. Trial Pit 3 looking north, showing Roman brickearth surface 27 (base of slit trench), probably forming the floor of a timber building to the north of the Roman road. This was the second of a sequence of three Roman surfaces alongside the road, sealed by post-medieval cultivated soil (in plan). The Roman sequence survives at a depth of between 1.2 and 1.8m below modern ground level. The gravel in the background is the base of a Victorian brick wall. Scale 1.2m



Plate 3. Trial Pit 4 looking north, showing the latest surface of the Roman road that ran east-west across the north of the site. The orange gravel road metalling 40 is visible in the background, with trampled gravelly silt wash 38/39 along the road's southern edge in the centre. In the foreground is Victorian wall 32. Scale 0.3m



Plate 4. Trial Pit 4 looking west, showing a section through the Roman road, with a camber down to its southern edge visible to the left. The latest road surface 40 overlies two earlier road surfaces 43 and 44 (in section), above a grey subsoil at the top of the natural brickearth (base of slit trench). Scale 0.3m



Plate 5. Trial pit 5 looking south-west, showing Victorian wall 14, part of an outbuilding on the west side of the yard bounded by the 1858 silk mill to the east and the manager's house to the south. Trial Pit 5 failed to locate the projected second Roman road, but a Roman buried soil 12, overlying natural brickearth, was recorded in the base of the trial pit. Scale 1.2m