

**An Archaeological Watching Brief on
land at 11 Church Street,
Empingham, Rutland (SK 949 085).**

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Planning Application No. F/99/0428/9/RH

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By Wayne Jarvis

1. Summary

An archaeological watching brief was undertaken by ULAS on behalf of Mr. T. Ellison, during groundworks for a new dwelling on land at 11 Church Street, Empingham, Rutland (SK 949 085, Planning Application no. F/99/0428/9/RH). The site lies within the historic core of a village of archaeological significance, and observations recorded a multiple inhumation burial, probably of Roman date. The burials were lifted because they were threatened by the development. In addition a linear feature, possibly an infilled boundary ditch or soakaway was recorded. The site archive will be held by Rutland County Museum under the Accession Number RA4.2000.

2. Introduction

This report presents the results of a watching brief which was undertaken during groundworks for a new dwelling on land at 11 Church Street, Empingham, Rutland (SK 949 085, Planning Application No. F/99/0428/9/RH), see Figs. 1 & 2. As the scheme lies within the historic core of Empingham village, an area of archaeological significance, it was considered that there was potential for survival of archaeological deposits, although previous watching briefs on this site have not revealed any significant archaeology (Browning 1999a,b). The site lies on the opposite side of the street to the church, and some 50m from it, and is adjacent to buildings of historical value. The Ordnance Survey Geological Survey of Great Britain, sheet 157, indicates that the underlying geology consists of ironstone of the Northampton Sand series.

3. Aims and Methods

The purpose of the watching brief was to ascertain whether archaeological deposits

were present, and if so whether they would be destroyed by further groundworks. Recording of these deposits would be carried out as appropriate. The work followed the Institute of Field Archaeologists (IFA) *Standard and Guidance for Archaeological Watching Briefs*, and adhered to the University's Health and Safety policy.

The groundworks were to involve a topsoil strip, and excavation of trenches (footings) over an area *c.*12m by *c.*7m (84 sq.m), for a split level building and garage in the south of the plot (see Figs. 3, 4). This work commenced on 28/1/2000 with a JCB and a 0.6m bucket, and continued on 31/1 and 1/2/2000. Excavated areas and faces were examined and hand cleaned where appropriate, and the spoil was checked for stray finds.

4. Results

The excavated depth of the trenches varied from 1.7m at the north end, to 1.1m at the south end of the area. The general stratigraphy consisted of a gritty dark greyish brown clay with frequent ironstone (possibly building demolition rubble), underlain by a brownish red clay with occasional ironstone which became more stony towards the base of the section. To the northwest of the dwelling plot, a 5.1m long trench was excavated to a depth of 1.1m. The section here comprised a 0.35m deep loose topsoil layer of crushed mortar and stone fragments, under which was 0.45m of mixed pale grey brown clay with frequent large stones. Towards the base of the section was 0.25m of a natural looking ironstone-rich yellow clay, which overlay a clean grey clay with occasional yellow clay bands. In the south section of the main trench, and in an east-west section to the north, could be seen a 1.1m wide linear north-south feature which was up to 0.6m deep, and roughly U-shaped in section. This consisted of a mid grey brown charcoaly clay fill with frequent ironstone fragments, but devoid of finds. It is likely that this is related to a north-south linear seen on an earlier watching brief (Browning 1999b), which produced 13th and 14th century finds and was interpreted as a soakaway.

In the north section of the house footings a fragment of skull was identified, and the section was cleaned further revealing a disturbed inhumation burial orientated east-west (head at the west, see Appendix B, Skeleton 1). Because this was so close to the edge of the trench and would be disturbed or destroyed by further work, a decision was made to lift this burial. The area of the inhumation was excavated, with the grave

fill consisting of a charcoaly greyish brown silty clay. Removal of this individual revealed other disturbed bones which were considered to represent a further burial (Skeleton 3), which was also excavated. Below this lay a further well-preserved burial, again prone and orientated east-west, and relatively complete except most of the ribs and vertebra had decayed, and the lower half of the lower limbs had clearly been truncated by construction of the coal cellar. This individual was recorded in situ (Skeleton 2), then lifted to reveal a few other bones, which proved to represent a fourth disturbed burial (Skeleton 4). Three sherds of pottery were found in the grave fill, one colour coat, one grey ware, and one coarse tempered ware, which suggest a late Roman date for the burials (see Appendix A).

5. Conclusions

The watching brief has added much to our knowledge of the population and the nature of early settlement in Empingham. Four inhumations were identified, two of which were aligned east-west as is the case with Christian burials, with pottery evidence suggesting a late Roman date. Two were adult males, and one was a mature female. The osteological evidence also provided information about the health of the ancient population, though the cause of death was not identified as this is rarely reflected in skeletal remains. Although multiple burials are known from the Roman period, it seems more likely that these represent part of a larger group (i.e. a cemetery) rather than isolated burials, because the earlier burials were clearly disturbed.

Additionally a north-south linear feature was recorded which may represent an infilled boundary ditch or soakaway. A similar feature was recorded to the north on an earlier watching brief, which produced 13th and 14th century finds.

6. Archive

The archive will be held by Rutland County Museum under the Accession Number RA4. 2000. It consists of watching brief record sheets, site plans and photographs, finds and bone material. A brief summary of this report will be published in *The Transactions of the Leicestershire Archaeological and Historical Society* in due course.

7. Acknowledgements

Fieldwork was carried out by the author. I am grateful to the client, Tim Ellison, the architect, Roger W. Stone, for their co-operation during the watching brief, and to Simon Chapman for the osteology report. The project was managed by Patrick Clay.

8. References

Browning J. (1999a) An Archaeological Watching Brief during groundworks at Church Street, Empingham, Rutland. ULAS report no.99/51

Browning J. (1999b) An Archaeological Watching Brief during groundwork at Church Street, Empingham, Rutland. ULAS report no.99/97

Cooper N. (2000) The Archaeology of Rutland Water

Figure 1. Location Map, scale 1:50000. Reproduced from the 1996 Ordnance Survey Map, sheet 141, with the permission of the controller of HMSO ©Crown Copyright. ULAS Licence No. AL51800A0001

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9. Appendix A - the finds

Context 1 (grave fill) 1 sherd, coarse tempered, Iron Age/ Roman
pottery
1 sherd, colour coated, late 3rd-4th century AD
1 sherd, grey ware, possible lid, Roman
1 flint flake, possibly on recorticated earlier flake

Pottery by Patrick Marsden, flint by Lynden Cooper

Appendix B

Osteological Analysis of Some Human Remains Excavated From Empingham, Rutland.

*By
Simon Chapman*

1. Introduction

The following report details the findings of a small assemblage of human bones excavated during a watching brief at Empingham, Rutland in February 2000. The remains were recovered from an area of surviving stratigraphy revealed in section during the cutting of foundation trenches for a new development. All of the remains detailed were located in an area of no more than 2m x 1m, probably representing a group of disturbed/intercutting graves.

2. Methodology

The analysis of the human remains from Empingham followed standard accepted methodologies employed in studies of this nature. These are as described by Bass (1987), Brothwell (1981) and Ubelaker (1989) and as advocated by both the Institute of Field Archaeologists (McKinley & Roberts 1993) and the Workshop of European Anthropologists (1980). Methods and texts used during the analysis will be cited, where appropriate, under the relevant categories of the following investigation.

3. Parts Present & Condition

The bone remains had been washed and fully air-dried prior to analysis. Physical preservation was fair, although many of the bones had suffered from erosion, especially on the dorsal (back) surfaces of the long bones. The remains were mostly strong and relatively stable at the time of analysis. However, the majority of bone elements present had been broken, in at least one place, and a large number of body parts were entirely missing.

Once laid out it was possible for a full inventory of the surviving remains to be compiled, See Figure 1.

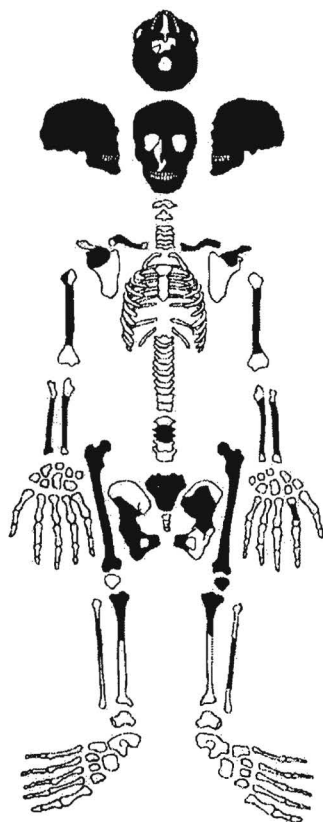
4. Minimum Number of Individuals (MNI)

Since the assemblage represented a group of disturbed/intercutting graves it was unclear, through excavation alone, just how many individuals were represented by the group. Two partial skeletons (SK. 1 and SK. 2) did, however, appear to be articulated. An MNI calculation for the assemblage was based on the most commonly occurring bone, in this case the left tibia (at the point of the dorsal nutrient foramen). The presence of four left tibias suggested that a minimum number of four individuals were represented by this assemblage.

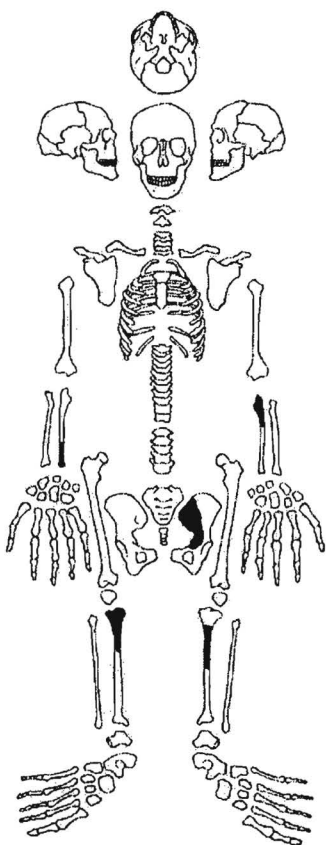
Minimum Number of Individuals = 4



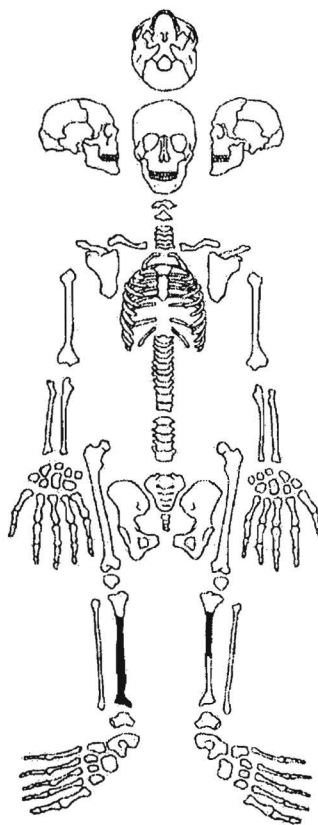
SK. 1



SK. 2



SK. 3



SK.4

Since the bones were fairly disturbed it is possible that some bones may have been assigned to the wrong individual in figure 1, though wherever possible parts were assigned according to matching age, sex and robusticity.

5. Diagnostics

A full osteological analysis was carried out on all of the surviving bones for the purposes of age and sex determination, estimation of living stature, identification of non-metric variations (NMV's, or normal skeletal variations) and the diagnosis of pathological conditions.

Age determinations were based upon epiphyseal fusion of long bones (as described by Brothwell 1981.fig 3.4 and White 1991.fig 16.4), pubic symphysis stage (as described by Brooks & Suchey 1990), and levels of dental attrition (based on Miles 1963).

Sex determinations were based upon sexually dimorphic features of the skull (Keen 1950) and pelvis (Brothwell 1981.60 & Phenice 1969). Overall robusticity of bones was also used as a secondary indicator (based upon Bass 1987.150 & 219).

Stature determination was based upon regression equations published by Brooks and Suchey (1990), using complete leg bones where possible. In the case of SK 1, however, metacarpal length was used in the absence of complete long bones (based on Musgrave and Harneja 1978).

The main results of this investigation are detailed in Table 1 (below).

Table. 1 Main findings of the osteological analysis

Skeleton	Age (yrs)	Sex	Stature (m)	NMV / Pathology
SK.1	20-25	Male	1.76	Exostosis on left radial tuberosity. Pos. well healed fracture of proximal r.radius. Exostosis on distal 3rd left metacarpal. Marginal osteophytes on lumbar & thoracic vertebrae (signifying arthritis). Blade cut on right fibular. Bilateral 3rd trochanters
SK. 2	45-55	Female	1.66	Minor cribra orbitalia in both orbits. Left side supra-orbital notch. 3 x dental (alveolar) abscesses.
SK. 3	> 23yrs	Male	?	None seen.
SK. 4	?	?	?	None seen.

Fairly heavy stages of dental attrition were seen to be consistent with the assumption that these skeletons might belong to the Roman period, certainly they pre dated the

advent of flour sieving (to remove grinding grit), which began in the 16th century. The teeth were only slightly affected by calculus (tartar), a feature which is usually very heavy in medieval teeth due to a high carbohydrate diet. Thus a Roman date seems reasonably acceptable.

Few pathological lesions were noted on any of the bones from this assemblage, certainly no evidence for the causes of death could be recovered. Some minor lesions were, however, observed (see table 1).

Cribra Orbitalia

Minor Cribra orbitalia was observed within both the left and right orbits of SK. 2. This is a common condition in many ancient populations, manifesting itself as a pitting on the bone within the orbits (eye sockets). The condition is often associated with a similar pitting of the parietal bones of the skull (known as porotic hyperostosis), though this was not present in this case.

It is believed that the main cause of cribra orbitalia is nutritional deficiency, in particular of chronic iron-deficiency anaemia. Anaemia itself is caused by a reduction (in number and/or quality) of blood haemoglobin below normally acceptable levels, which in turn leads to hyperplasia (increase) of bone marrow in an attempt to produce more red blood cells. Hyperplasia of bone marrow has a twofold effect on bone, firstly it causes a destruction of the outer table of compact bone, through the development of porotic lesions (in the orbits and on the cranial vault), and secondly an expansion of the middle layer of bone or diaphysis (Stuart-Macadam 1991:101). The osteological manifestation of this condition is predominant in juveniles, probably due to the increased nutritional demands associated with childhood growth and development. When observed in older adults, as in this case, it is more than likely that the lesions reflect a period of childhood anaemia. Indeed the severity of the porotic lesions can be seen to lessen with the advancing age of the person, i.e. gradually healing over time (Nathan & Haas 1966).

Fracture / muscular stress

The distal end (near the elbow joint) of the right radius of SK 1 displayed a prominent twist, leaving the head of the radius at an unusual angle to the shaft. This probably arose as a result of a well healed fracture. Interestingly the left radius also showed signs of stress, in the form of bony growths, or exostoses, on the radial tuberosity (where the bicep muscle attaches) due to muscle and ligament straining. It seems likely that this individual was used to manual labour, and certainly overworked the elbow joints at some time in his short life.

Dental Pathology

Unsurprisingly it was the older of the aged individuals, (SK. 2) that displayed the worst dentition. At some time in this individual's lifetime the lower left second premolar and first molar had broken, leaving only the exposed bony roots of the 1st molar and half of the premolar. Nonetheless, this individual still carried on chewing

on these teeth for 10's of years (even the molar roots displayed attrition polish). This situation was certainly not without its problems, since at the time of death the associated gum was suffering from three active abscesses, caused by root infection.

Blade cut

Individual SK. 1 bore a single sharp blade cut to the midshaft of the right fibula. This appeared to have resulted from a single downward blow, which removed a sliver of bone in the process. The wound showed no signs of healing/remodelling, thus it can be assumed that the injury was sustained at or close to the time of death.

6. Summary

It has been the intention of the current report to catalogue and attempt to interpret the metrical and observational data retrievable from the analysis of the human remains from Empingham.

In summary, the human remains from this site represent a minimum of four individuals. Two adult Males, of 20-25yrs and >23yrs, one mature adult Female of 45-55yrs, and one individual of indeterminate age and sex.

Two skeletons (SK's 1 and 2) appear to have been articulated, and only slightly disturbed, since they lay almost in tact (and in anatomical orientation) within the context. The other two individuals, however, were only partially represented by a few apparently disturbed bones.

References

- Bass. W. (1987) Human Osteology: A laboratory and Field Manual. 3rd Edition. *Missouri Archaeological Society*.
- Brothwell. D (1981) Digging up Bones. London. British Museum Press.
- Brooks.S & Suchey.J.M (1990) Skeletal Age Determination Based on the Os Pubis: a comparison of the Acsadi-Nemeskeri and Suchey-Brooks methods. *Human Evolution* 5 (3).
- Keen.J.A, (1950) A Study of the Differences Between Male and Female Skulls. *American Journal of Physical Anthropology*. 8: 65-79.) .227-238.
- McKinley.J.I. & Roberts.C. (1993), Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains. Institute of Field Archaeologists. Technical Paper 13.
- Miles.A.E.W (1963) The Dentition in the Assessment of Individual Age in Skeletal Material. In R.D.Brothwell ed. Dental Anthropology. Vol.V Symposia of the society for the study of human biology. Pergamon press.
- Musgrave.J.H. and Harneja.N.K. (1978) The Estimation of Adult Stature from Metacarpal Bone Length. *American Journal of Physical Anthropology*, 48 (1): 113-120.
- Nathan.H. & Haas.N (1966) Cribrum Orbitale, a Bone Condition of the Orbit of Unknown Nature. *Israel Journal of Medical science*. 2: 171-191.
- Phenice.T.W. (1969) A Newly Developed Visual Method of Sexing the Os pubis. *American Journal of Physical Anthropology*. 30:297-302
- Stewart-Macadam.P. (1991) Anaemia in Roman Britain: Poundbury Camp. in H.Bush & M.Zvelebil (eds) Health in Past Societies: Biocultural Interpretations of Human Skeletal Remains in Archaeological Contexts. BAR International 567. 101-113.
- Trotter.M & Gleser.G.C. (1952) Estimation of Stature From Long Bones of American Whites and

- Negroes. *American Journal of Physical Anthropology* **10**: 463-514.
- (1958) A Re-evaluation of Estimation of Stature Based on Measurements of Stature Taken During Life and Long-Bones After Death. *American Journal of Physical Anthropology*. **16**: 79-123.
- Ubelaker.D.H. (1989) Human Skeletal Remains: Excavation, Analysis & Interpretation (2nd edition) *Smithsonian Contributions to Anthropology*
- Workshop of European Anthropologists (1980). Recommendations for Age and Sex Diagnoses of Skeletons. *Journal of Human Evolution* **9**: 517-549.

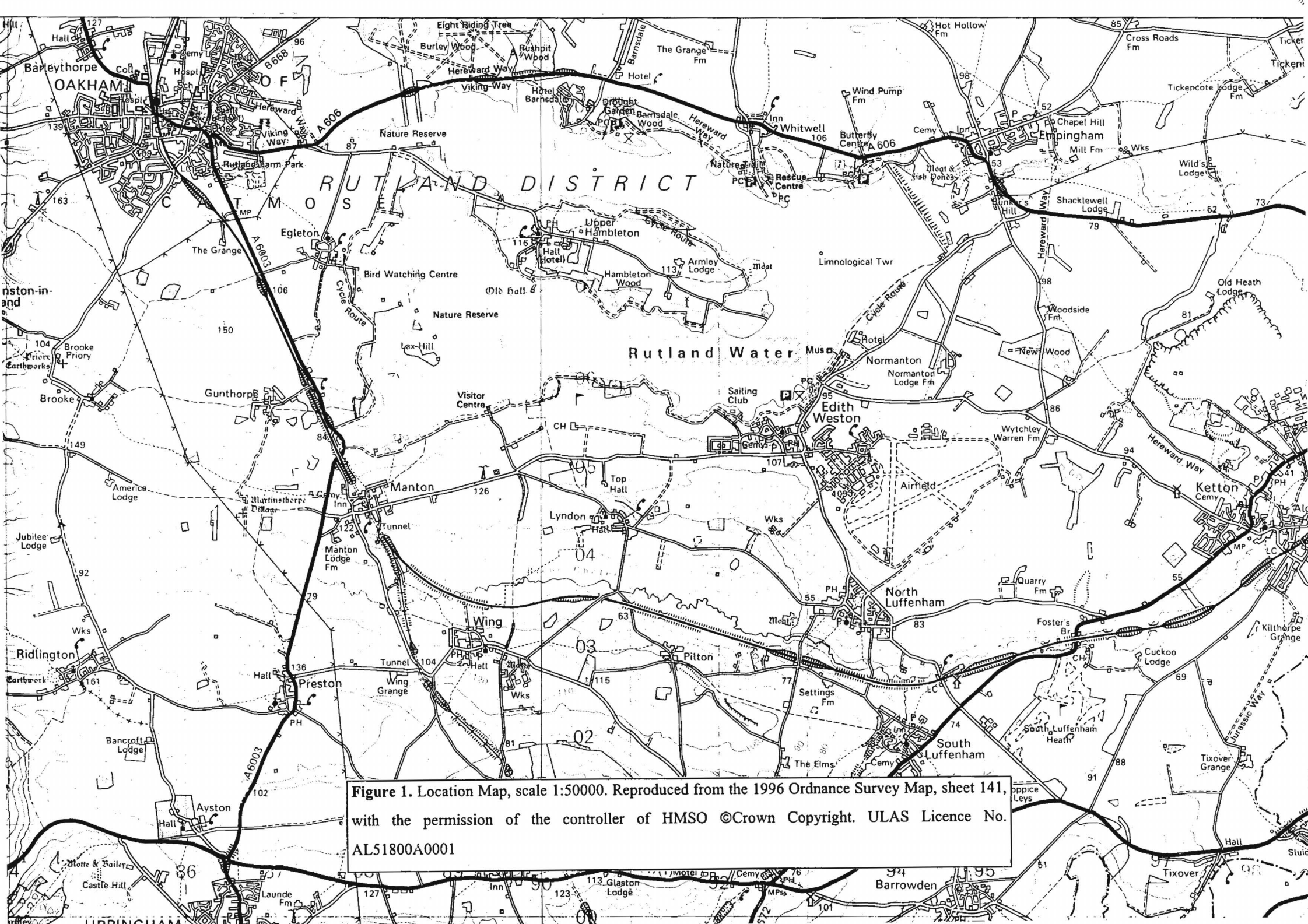


Figure 1. Location Map, scale 1:50000. Reproduced from the 1996 Ordnance Survey Map, sheet 141, with the permission of the controller of HMSO ©Crown Copyright. ULAS Licence No. AL51800A0001

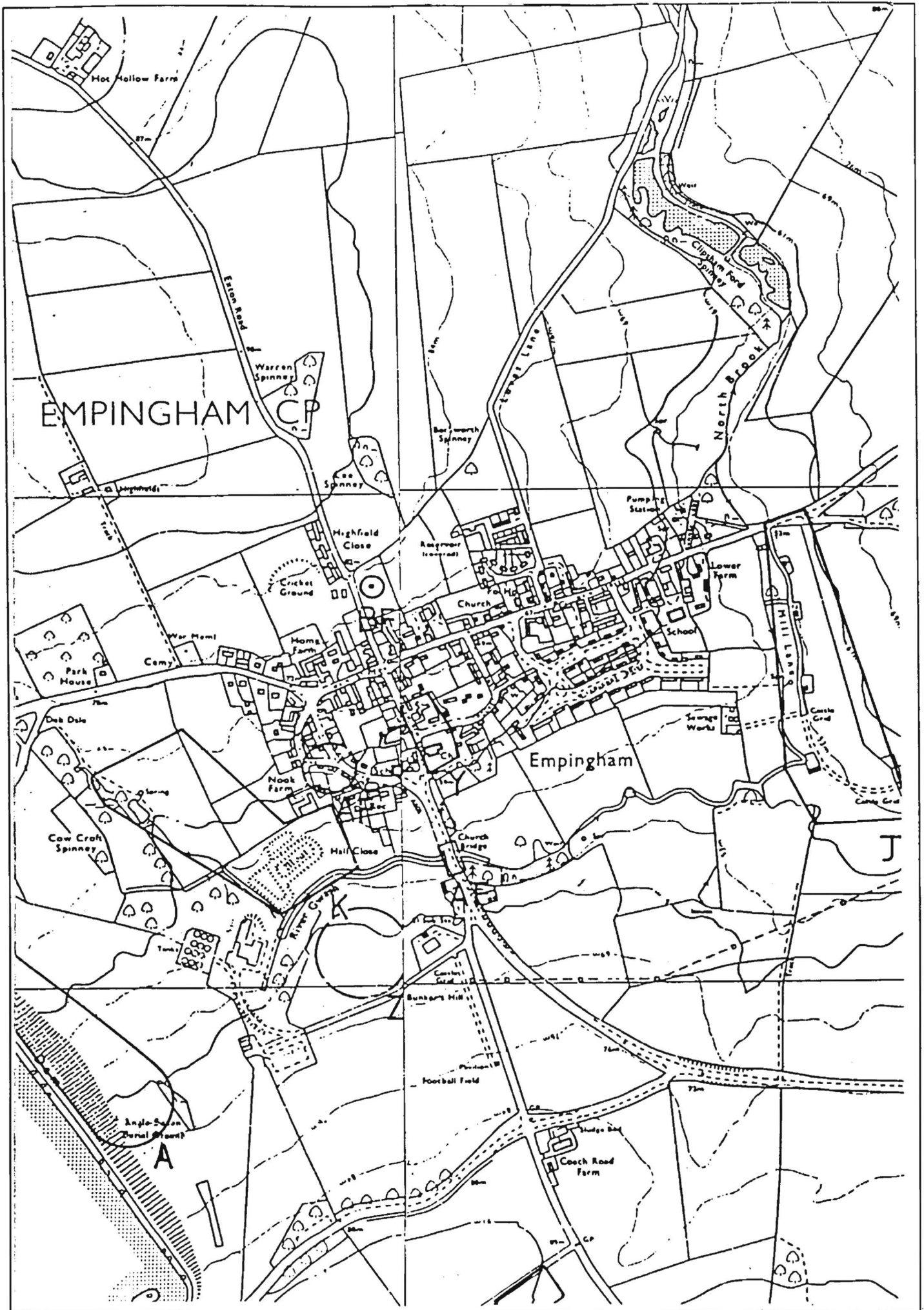


Figure 2: Location of the development area. Scale: 1:10 000.
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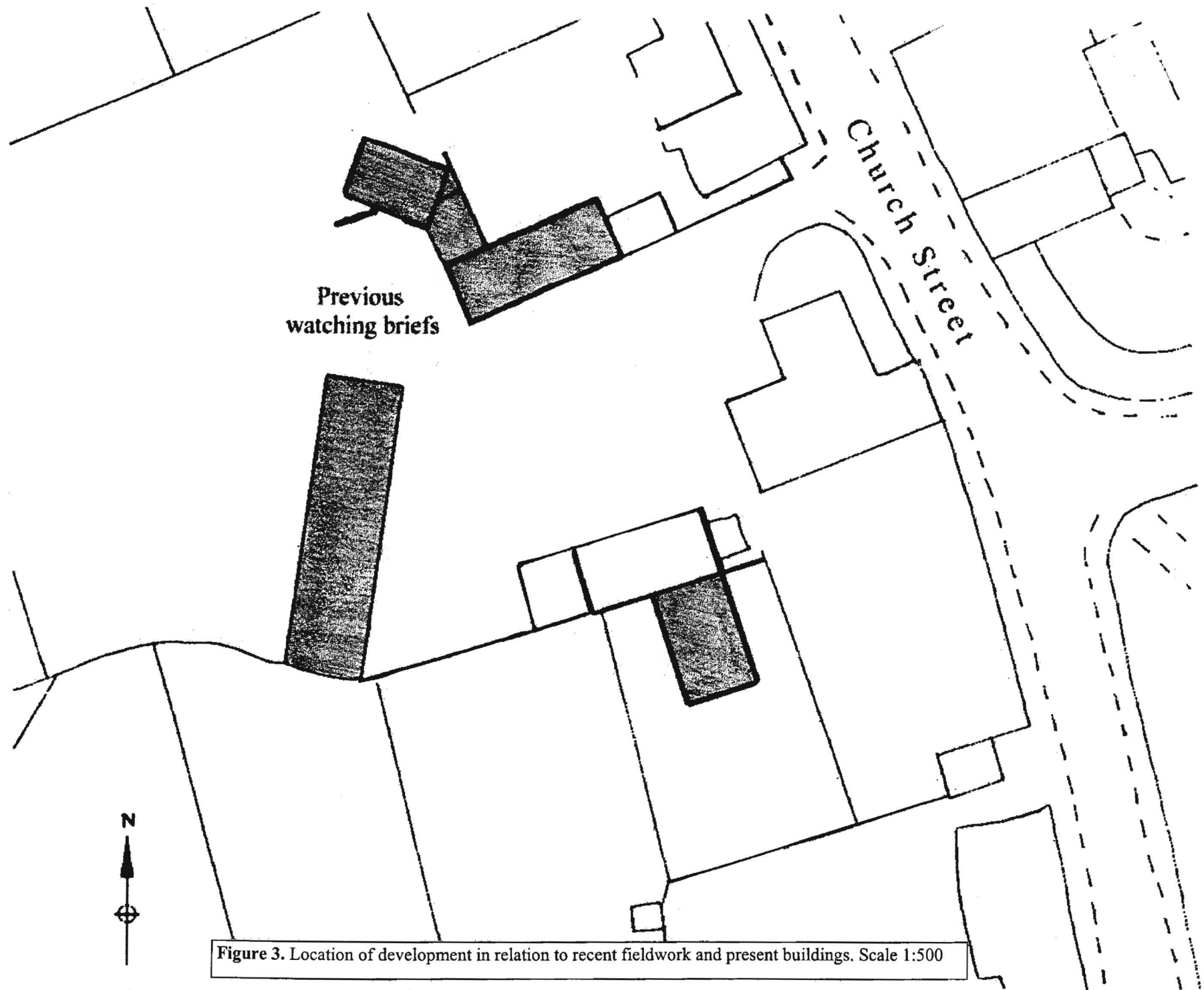


Figure 3. Location of development in relation to recent fieldwork and present buildings. Scale 1:500

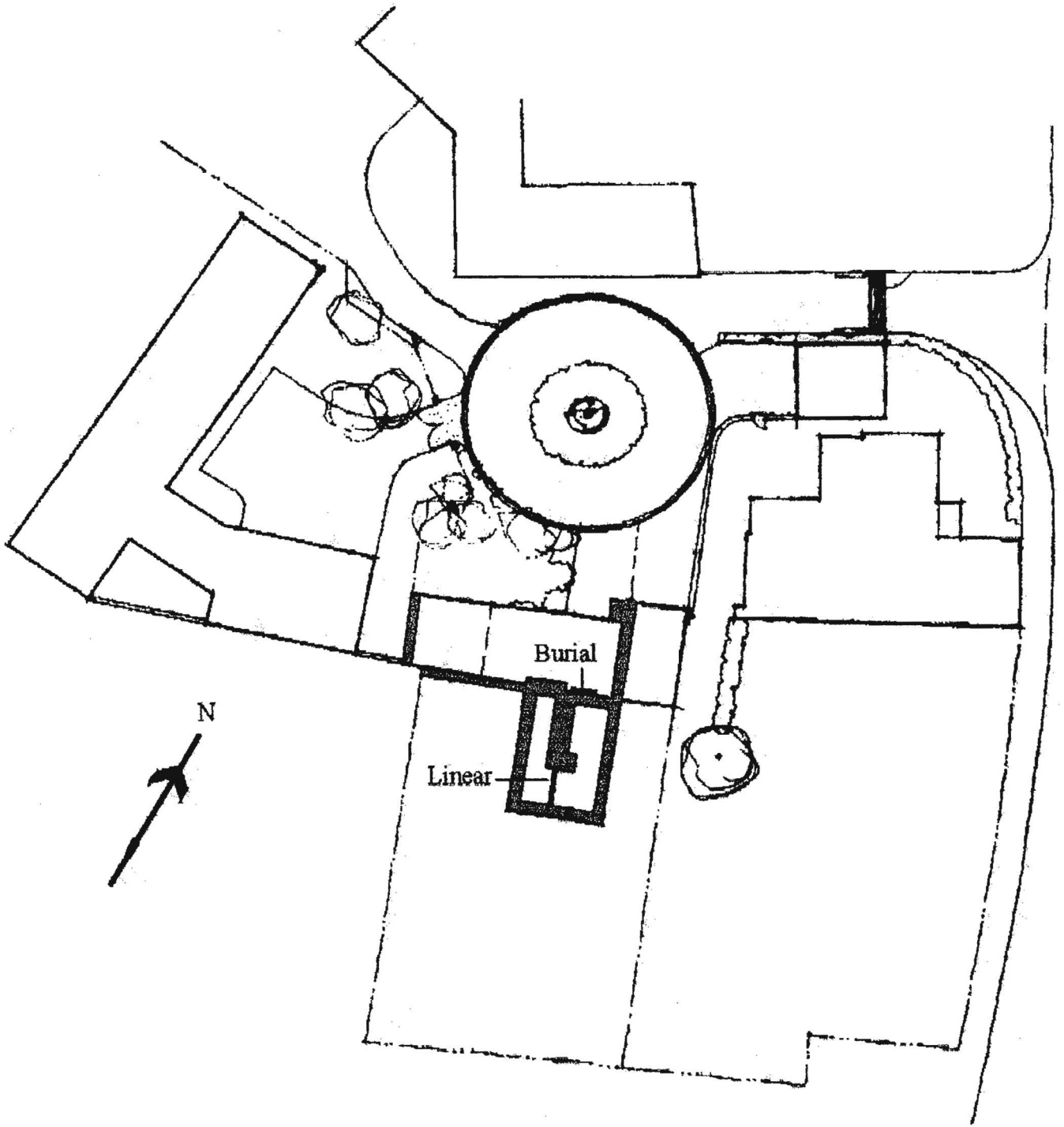


Figure 4. Sketch location plan of trenches and features discussed in the text.