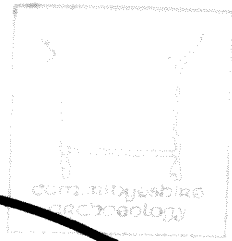
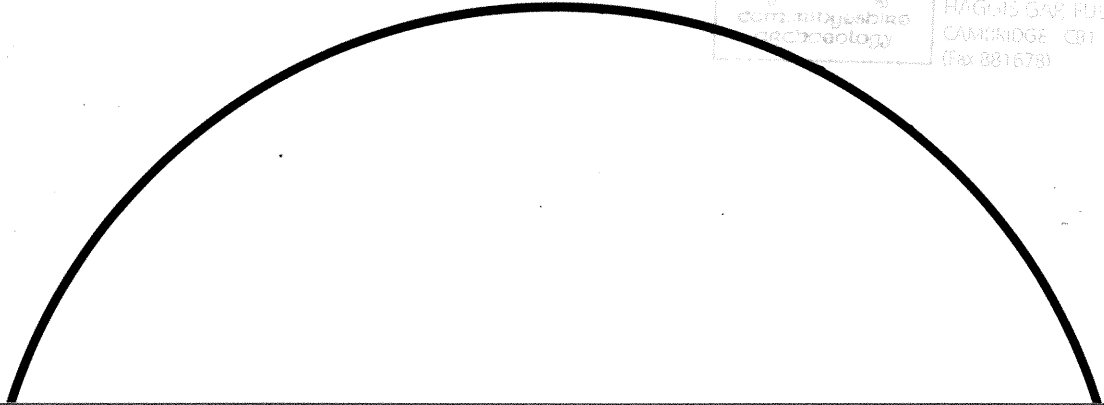


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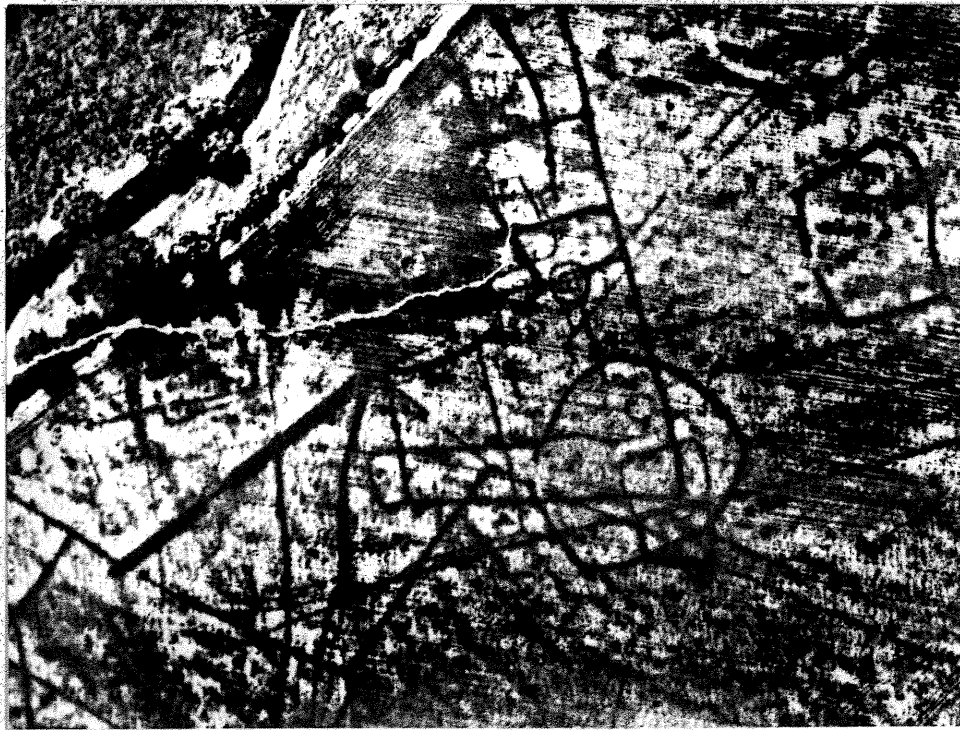


ARCHAEOLOGY FIELD OFFICE  
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# M11 WIDENING PROGRAMME

## THE ARCHAEOLOGICAL ASSESSMENT



Cambridgeshire  
County Council

Rural Strategy

# M11 WIDENING PROGRAMME THE ARCHAEOLOGICAL ASSESSMENT

NGR: TL494439 to 414618

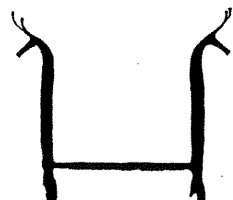
**STEVE KEMP**

Prepared by  
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Cambridgeshire County Council,  
Rural Management Section  
Shire Hall  
Castle Hill  
Cambridge CB3 0AP

December 1990



*S.A.M. 73 Scheduled ancient monument North-west of Little Shelford*  
The aerial photograph shows an Iron Age and Romano-British settlement site  
with square and circular enclosures



cambridgeshire  
archaeology

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**M11 WIDENING PROGRAMME:  
THE ARCHAEOLOGICAL ASSESSMENT**

**INTRODUCTION**

1.1 This report has been drawn up to identify archaeologically sensitive sites within the area of search for the proposed widening of the M11.

1.2 Information has been compiled from the Sites and Monuments Records kept by the Archaeology Section, Cambridgeshire County Council, followed by field visits to assess the present condition and extent of known sites. Our ability to assess the extent of known sites was limited by the growth of crops in December 1990 after a warm autumn.

1.3 More sites are likely to be recognised by routine fieldwalking in optimum conditions when the search corridor has been narrowed.

**2.0 ARCHAEOLOGICAL BACKGROUND**

2.1 The Archaeology Department has over 11630 entries recorded on the Sites and Monuments Record, varying from individual artefacts to extensive monuments and archaeological landscapes. Two hundred and fifty two of these are currently recorded as being worthy of statutory protection, designated by the Secretary of State for the Environment as Scheduled Ancient Monuments.



This number is likely to increase substantially in the next few years as a result of the Monuments Protection Programme. Recent Policy and Planning guidance by the Department of the Environment states clearly that development proposals affecting known sites must make provision for preservation, or, as a last resort excavation and recording of all archaeological deposits.

2.2 The majority of archaeological site and monuments survive below ground only, often below the plough soil. Most sites in Cambridgeshire have been located as cropmarks by aerial photography, ranging from remnants of mediaeval field systems to Bonze Age ring ditches and large complex prehistoric and Roman settlement sites.

2.3 Lack of recorded evidence for an area cannot necessarily be taken as an archaeologically sterile landscape. New archaeological remains are continually being discovered in the county indicating that the SMR only holds a sample of the much larger total of sites considered to exist. Until recently many sites in Cambridgeshire have been masked by peat which make identification of archaeological sites difficult. These are now being affected by ploughing and development often before there is any opportunity to adequately record these areas. Fortunately this does not apply to the M11 corridor, although areas of alluvium in river valleys are likely to have the affect of masking ( and protecting ) archaeological features

2.4 Road construction works are considered to be highly destructive to archaeological remains as they involve the removal of both topsoil and subsoil along the proposed routes as well as affecting wider areas by cuttings, embankments, service works and construction camps.

### 3.0 The County Archaeological Policy

3.1 The importance of archaeology is recognised by the Cambridgeshire County Council, who have a policy to safeguard nationally important ancient monuments and other significant archaeological sites in the county by exercising their powers of development control.

3.2 Specific policies relate to the design of road schemes: "Account will be taken of these areas in the preparation of local plans and other policy documents, in development control and in the design of road schemes." ( Structure Plan Policy 14.54).

3.3 Other important statements include the necessity to excavate and record sites; "where there is no over-riding case for the preservation of an archaeological site," ensuring information loss is kept to a minimum.

#### 4.0 Organisation of the assessment

4.1 Each proposed road corridor is accompanied by a map identifying the entries on the SMR with a cross or cropmark plot and four figure reference;

a. those without further qualifying remarks in the text sections (i.e settlement, cropmark) refer to single find spots.

b. all cropmarks known from aerial survey have been plotted onto transparent paper and overlay the maps sheets to show the position and extent of cropmark complexes.

c. a reference number prefixed by SAM refers to a Scheduled Ancient Monument.

4.2 An accompanying list is provided giving the Sites and Monuments Record number, a national Grid reference and a description identifying the type of site within the highlighted areas on the relevant map sheet of the M11 corridor. A short text section provides additional information and provisional judgement on these sites, outlining the need for fuller field evaluations where necessary. Sites not likely to be affected such as village centre sites and churches are not highlighted.

4.3 In other areas where sites are preserved under pasture rather than arable cultivation the presumption is that archaeological remains are of a potentially higher quality and amenity value.

## 5.0 Guidelines to forms of Preservation.

"To be preserved" applies to the most important sites and should be seen as an absolute constraint.

"Preservation recommended" applies to sites where excavation could be an alternative if there were overriding engineering objections.

"Further assessment required" normally involves detailed fieldwalking and trial trenching, leading to excavation at the next stage, when it is clearer which sites are likely to be affected, but before the definitive route is fixed.

"Limited importance" means that the site need not affect the route chosen. Any work that is judged necessary after the route is chosen is likely to be low-key, probably fieldwalking followed by a watching brief.

MAP SHEET 4; WS/ATKINS

NAT. GRID TL 546000/239000 to 546000/245000

Scale approx. 1:10,000

SMR.No.    NGR.        DESCRIPTION.  
IMPORTANCE/ASSESSMENT

4202        TL49/42    Cropmark

Double strip lynchet still surviving, though in a poor state of preservation due to arable agriculture.

Preservation recommended.

4417        TL494439   Cropmark

Under arable next to M11 and is likely to be affected by the widening project.

The crop mark shows a series of field ditches which from the data presently available are of limited importance.

4168        TL498431   Roman villa

Area presently under plough. Some brick and tile were observed on the surface of the field. A spring pond to the north was likely to have been a fundamental part of the villa complex. The south field was probably affected by the embanking of the M11. In the 1930's excavation occurred at the above mentioned fish pond; the finds are presently held by the Saffron Walden museum. During the 1970's fieldwalking occurred in the area ahead of the M11 construction by the M11 Archaeological committee.

Further assessment will be required, this will involve trial trenching, followed by excavation or preservation unless the site is shown to be highly disturbed already.

**SAM 84 TL494432 Scheduled Ancient Monument**

A Roman villa south of Ickleton. The field is presently under arable crop. Brick, tile and pottery are all found on the surface.

To be preserved.

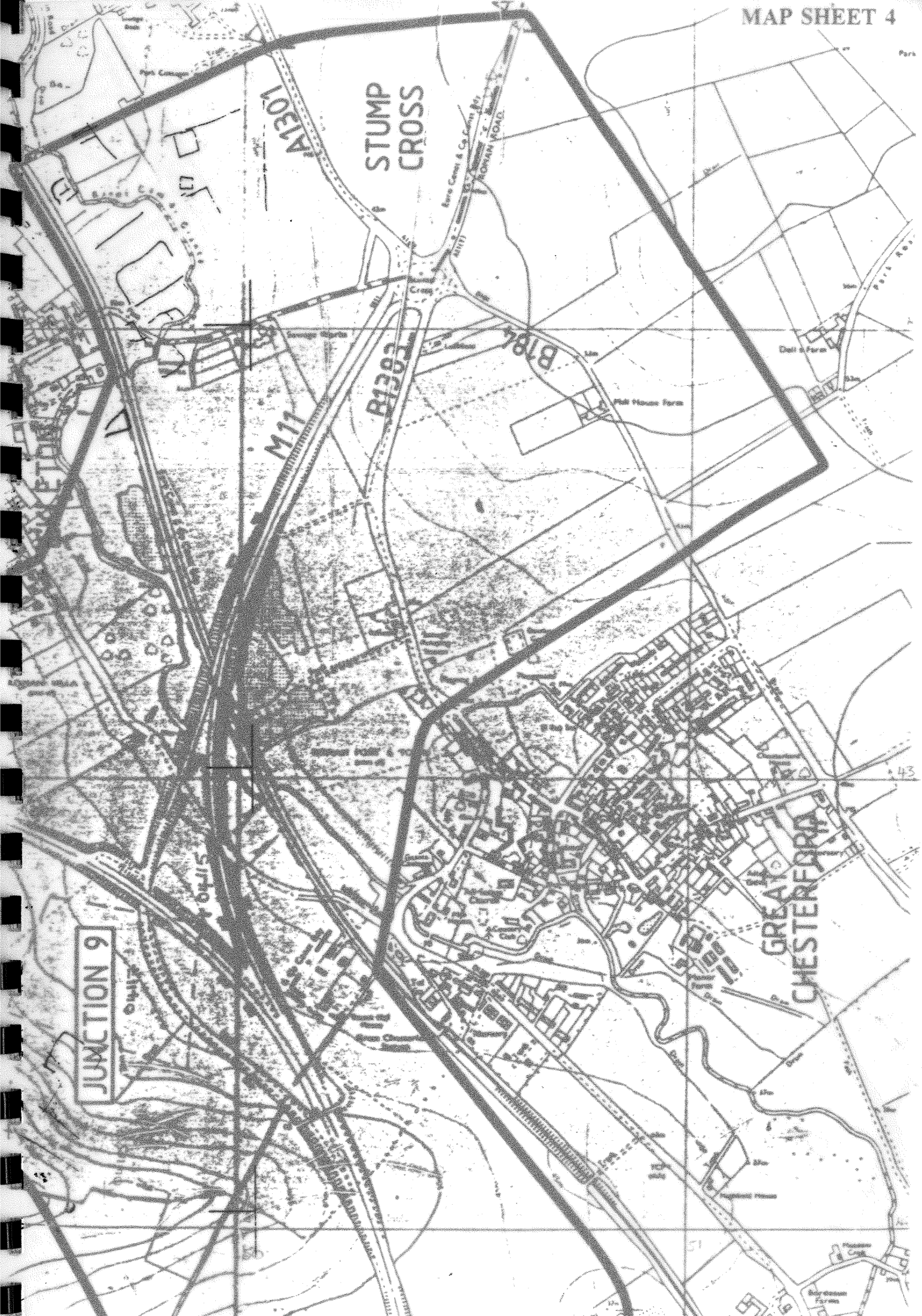
**4229 TL487436 Mediaeval Priory**

The field has been recently (Nov.1990) ploughed; no features are immediately visible. At present we are unable to define the extent of the priory. There are upstanding earthworks around Abbey Farm and mediaeval stone coffins have been found.

Further assessment is required. This will involve field walking in optimum conditions, documentary research, trial trenching and geophysical work to locate areas to be preserved.

**4098 TL485442 Windmill**

To be preserved.





MEDINBURGH  
Parway

4229

TICKLETON CP

SA 84

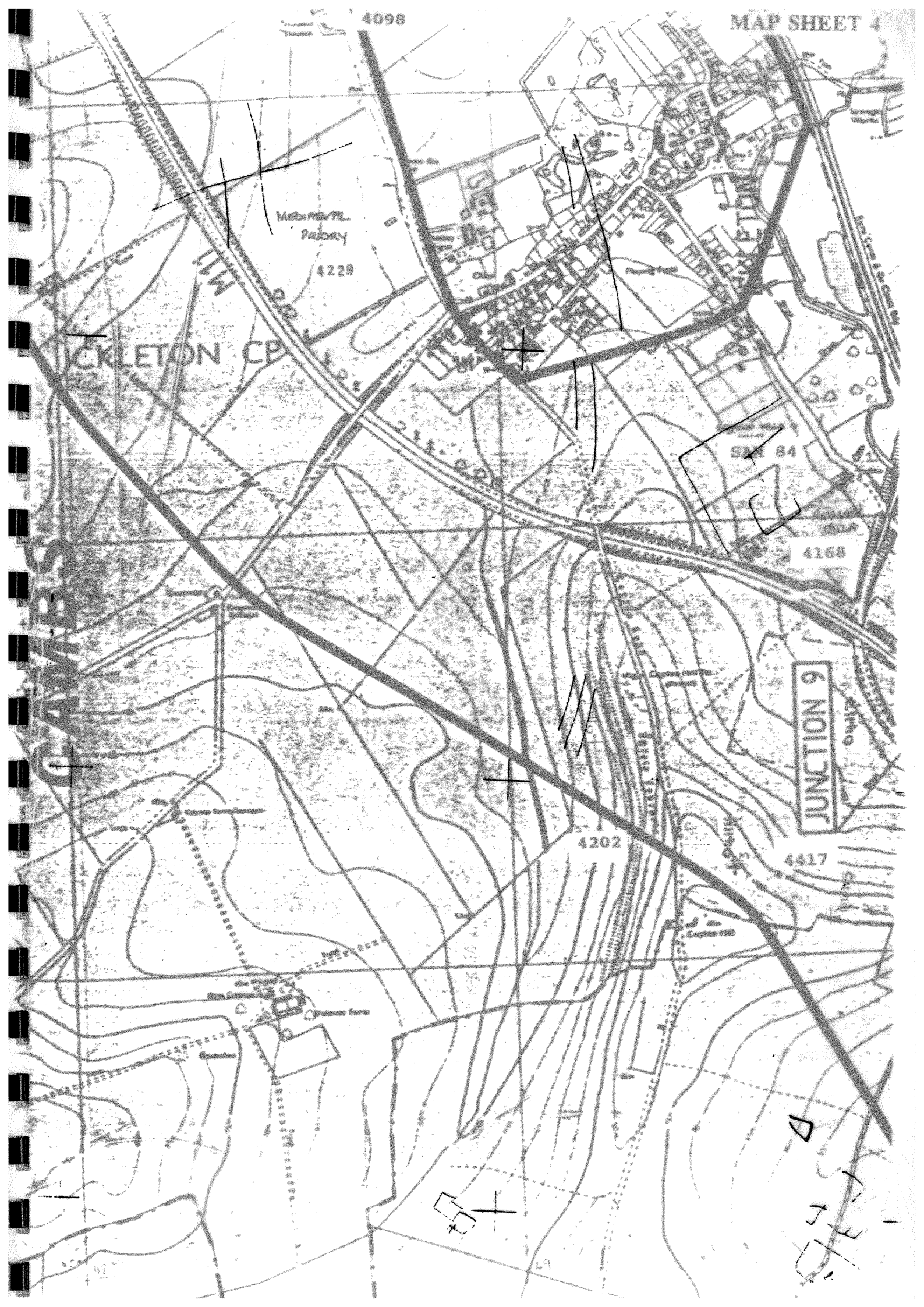
4168

JUNCTION 9

4202

4417

Handwritten notes and symbols in the bottom right corner, including a large 'D' and other illegible markings.





**MAP SHEET 5; WS/ATKINS**

NAT GRID TL 544000/245000 TO 544000/251500

SCALE APPROX. 1:10,000

**9741 TL474470 Cropmark**

Traces of ridge and furrow. Work by the Cambridge Archaeological Unit (Evans 1990:19), shows that there may be Romano-British and possibly later prehistoric settlement features associated with traces of the mediaeval landscape. Further assessment by trial trenching will be required, possibly leading to excavation.

No features have yet been traced north of the A505. Fieldwalking and trial trenching will be required.

**SAM 255 TL455470 Scheduled Ancient Monument.**

A Roman settlement site south of Chronicle hills on the western limit of the M11 corridor.

To be preserved.

The area to the east of the scheduled monument will be threatened by the development and so requires further assessment by fieldwalking, further aerial photography, trial trenching and possibly excavation, in case the Roman settlement extends further to the east than shown on the aerial photographs.

Within this eastern strip lies a World War Two Pill Box which needs to be preserved.

9638 TL448506 Cropmark and Roman kiln.

The cropmark plot shows a single long ditch running north to south along the same alignment as the M11. South of the Shelford road lies an area of Roman kilns discovered during construction of the M11.

Further assessment is required by fieldwalking and geophysical survey, fieldwalking and excavation if necessary.

9630 TL441504 Cropmark

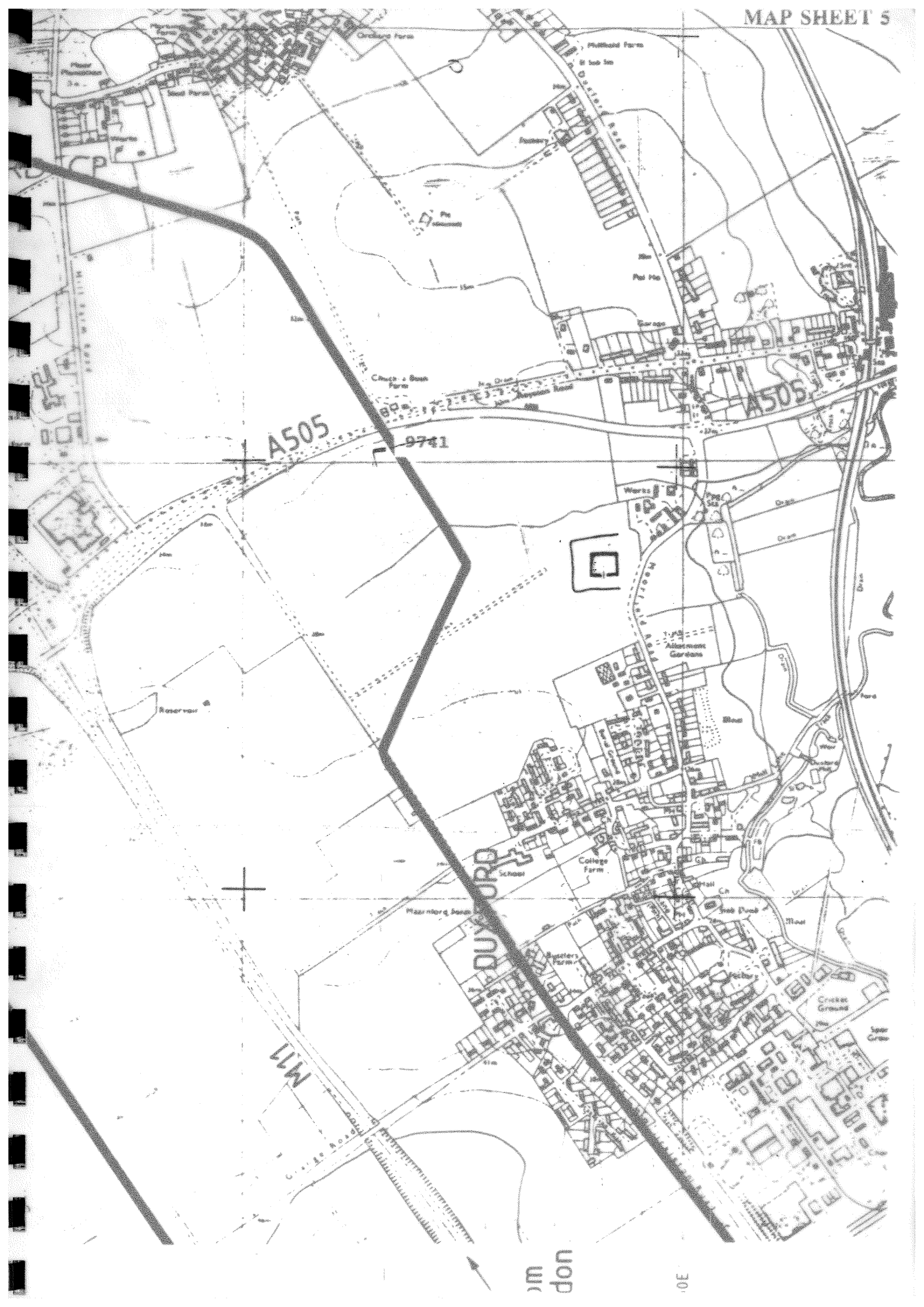
The cropmark plot shows the presence of square enclosures within the area marked. The fields are presently under arable crop and woodland making the recognition of features on the ground difficult.

Further assessment required including fieldwalking and trial trenching.

9632/7 TL444518 Cropmarks  
to TL444512

A series of cropmarks showing field boundaries and possible drainage ditches.

An area of limited importance from information available at this level of analysis.



A505

9761

A505

DUXFORD

M17

Mazehong Basin

College Farm

Works

Reservoir

Job Pond

Cross Green

don  
m

0E

WHITTLESFORD CP

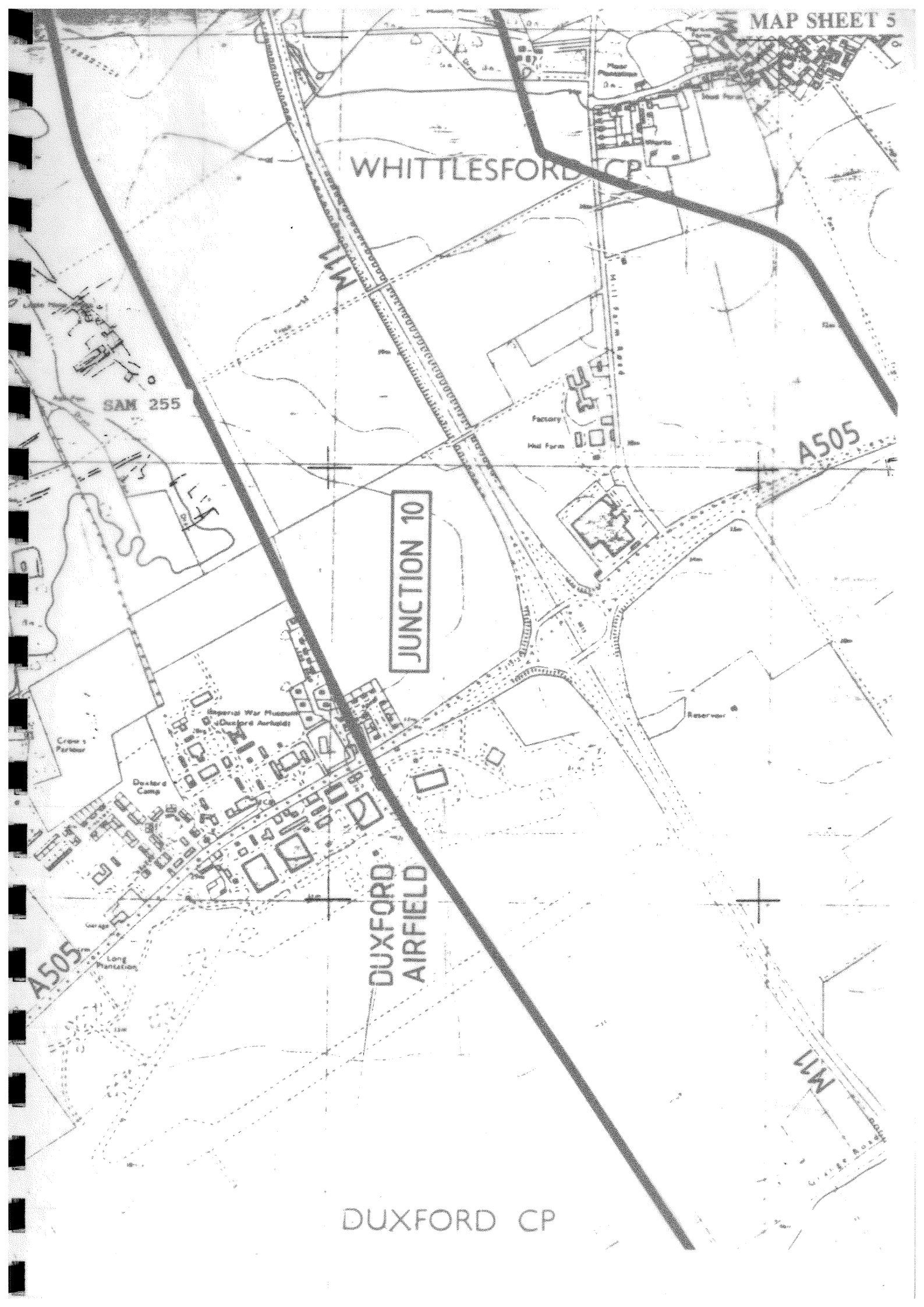
SAM 255

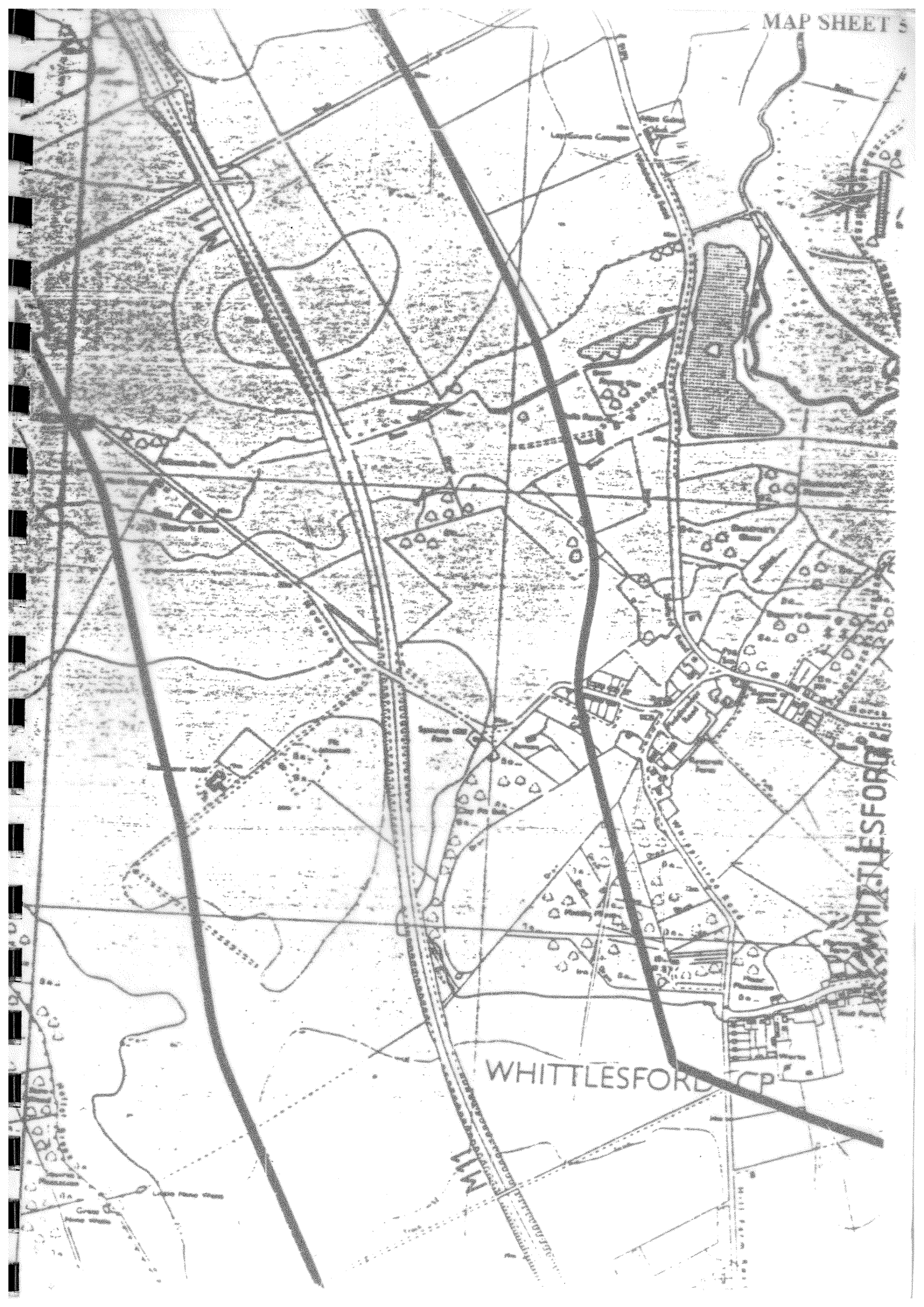
JUNCTION 10

A505

DUXFORD AIRFIELD

DUXFORD CP





WHITTLESFORD

WHITTLESFORD CP

M11



To  
Cambridge

9632/7

9636

Shelford Road

LITTLE  
SHELFORD

St. Mary's House

LITTLE SHELFORD CP

9638

9630

NEW



MAP SHEET 6; WS/ATKINS

NAT GRID TL 541000/251500 TO 541000/258000

SCALE APPROX. 1:10,000

**9631 TL444518 Cropmarks**

Field boundaries observed from aerial photographs. Area under plough.

Of limited importance.

**9635 TL449517 Cropmarks**

Square enclosure presently under plough.

Preservation recommended.

**SAM 73 TL450520 Scheduled Ancient Monuments  
and TL448522**

A series of settlement sites of Iron age and Romano-British.

To be preserved.

**4496 TL449524 Cropmarks**

The whole area from Little Shelford to just north of the scheduled monument 58 has a continuous distribution of crop marks.

This area will need further assessment.

**SAM 58 TL446526 Scheduled Ancient Monument**

Roman settlement site north of Hauxton.

To be preserved

**9628 TL439526 Cropmarks**

A series of cropmarks showing field systems and a possible ring ditch lying on the western side of the M11 from Hauxton to north of scheduled monument 58.

Further assessment required by fieldwalking and trial trenching where they are affected.

**9629 TL433538 Earthworks and Cropmark**

Romano-British settlement site and earthworks associated with coprolite mining. The large coprolite mounds shown in the aerial photographs were destroyed in the mid 1970's.

The cropmark site will need further assessment.

**SAM 74 TL434544 Scheduled Ancient Monument**

A Romano- British settlement site.

To be preserved.

**SAM 75 TL427546 Scheduled Ancient Monument**

This area cannot be avoided and therefore preservation measures must be looked at closely. Embanking following liaison with English Heritage is recommended.

If this is not feasible on engineering grounds a programme of excavation must be agreed with English Heritage and the County Council.



9606 TL424562 Cropmark

The cropmark plot shows a series of square ditch enclosures lying between the M11 and the Coton road. The land is presently ploughed so no features are upstanding.

Further assessment by fieldwalking and trial trenching will be required.

9600 TL424568 Cropmark

A series of cropmarks showing field systems at the A603 round-about near to Grantchester which are of limited importance. There is some indication of a moat in the north-east corner of marked area.

Further assessment will be required initially by trial trenching, possibly followed by excavation.

9604 TL419568 Cropmark

The cropmark plots show an area of ridge and furrow and two ring ditches. The area is presently under improved pasture.

Trial trenching, possibly followed by excavation is required for the ring ditches well in advance of construction.

JUNCTION 11

A1309

A10

SAM 58

9628

HAXTON CP

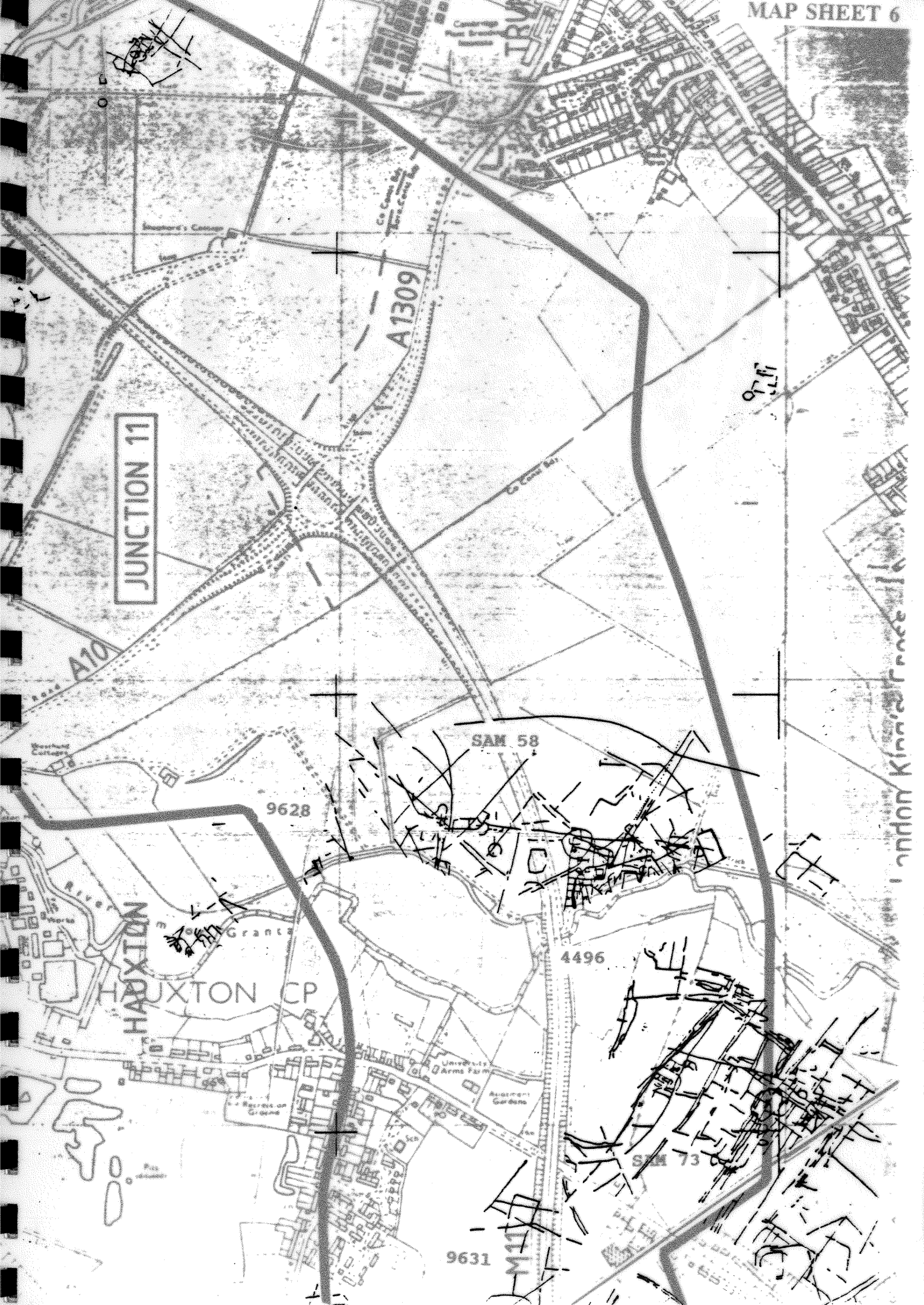
4496

SAM 73

9631

M11

London King's Cross





*9629 Earthworks and Cropmarks south of Grantchester*  
The aerial photograph shows as mound left by coprolite working. Map sheet 6



*S.A.M. 75 Scheduled ancient monument near Grantchester*

Iron Age and Romano-British settlement show as square enclosures with pit alignments

Aerial photograph taken before construction on the M11.      Map sheet 6

GRANTCHESTER

SAM 75

SAM 74

Lingey Fen

Chained Bay

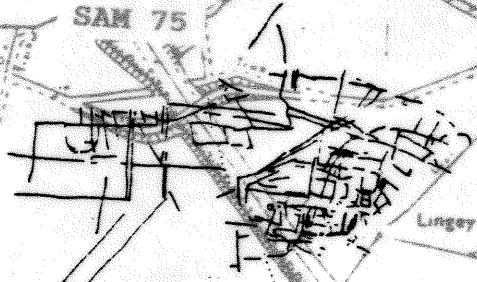
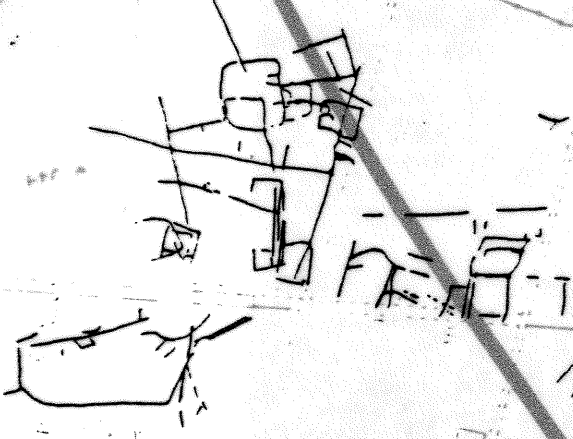
Canalside

MARKHAM JUNCTION

9629

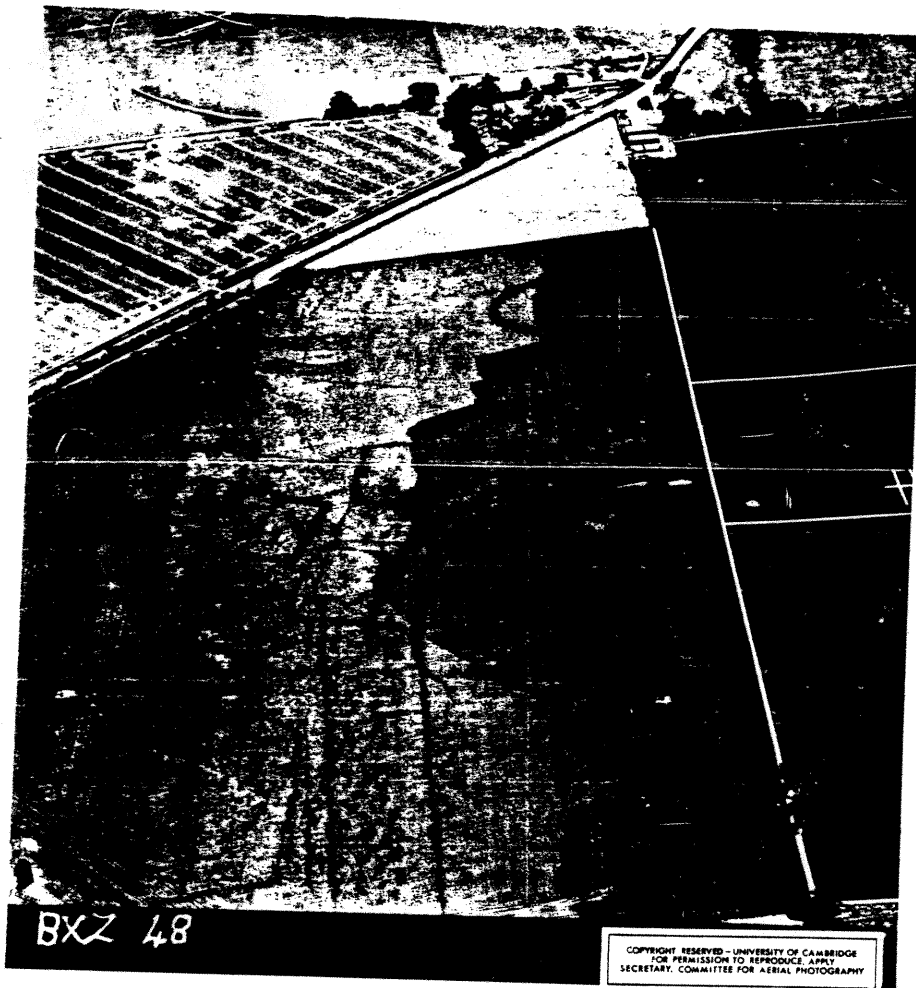
JUNCTION 11

A10

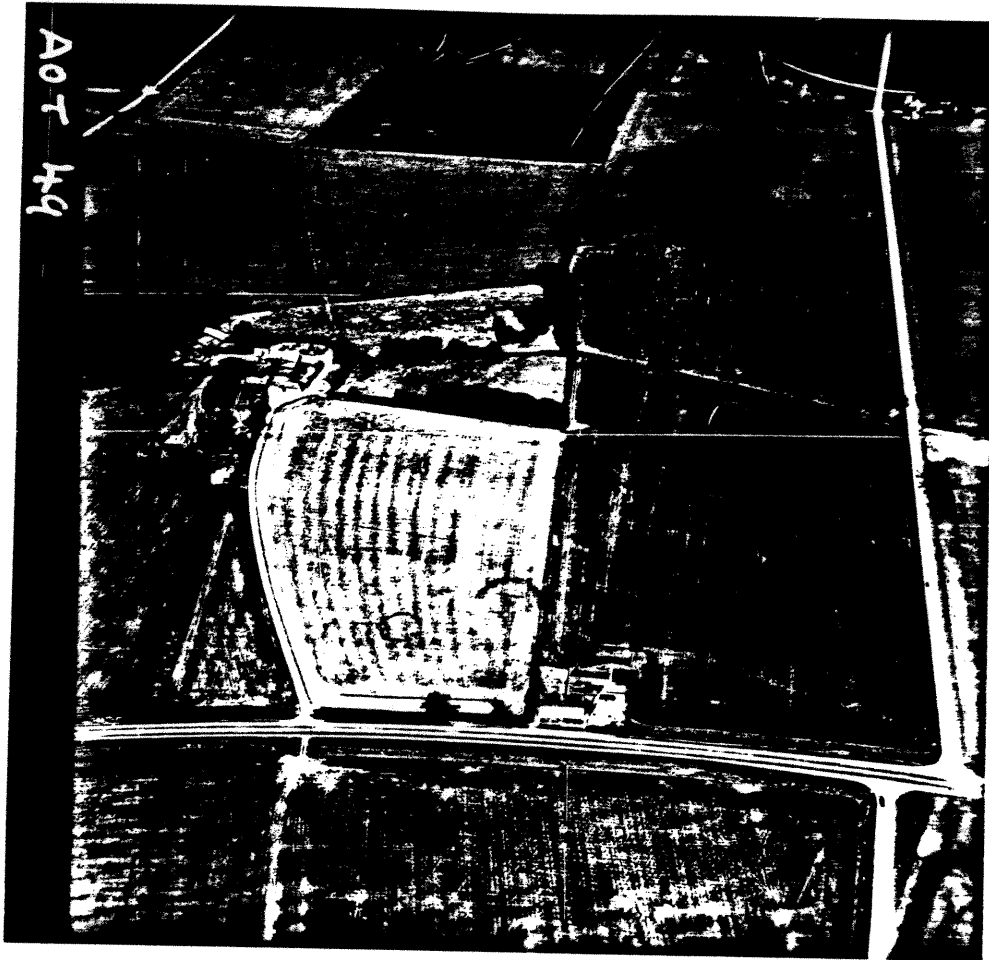


Handwritten scribbles or notes, possibly initials or a signature.





9606 *Square ditch Enclosures North-West of Grantchester* Map sheet 6



*9604 Ring-ditches below medieval ridge and furrow Great Shelford*

Map sheet 6



9609

To  
Coton

To  
North  
Cambridge

M11

A60B

Rifle  
Range

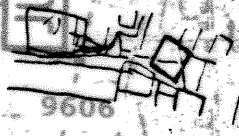
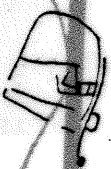
JUNCTION 12

GRANTCHESTER CP

B1046

BARTON

A60B



9604

9600

9606

Wheat Lane

Springfield

Brookfield

Weside

Dumping farm

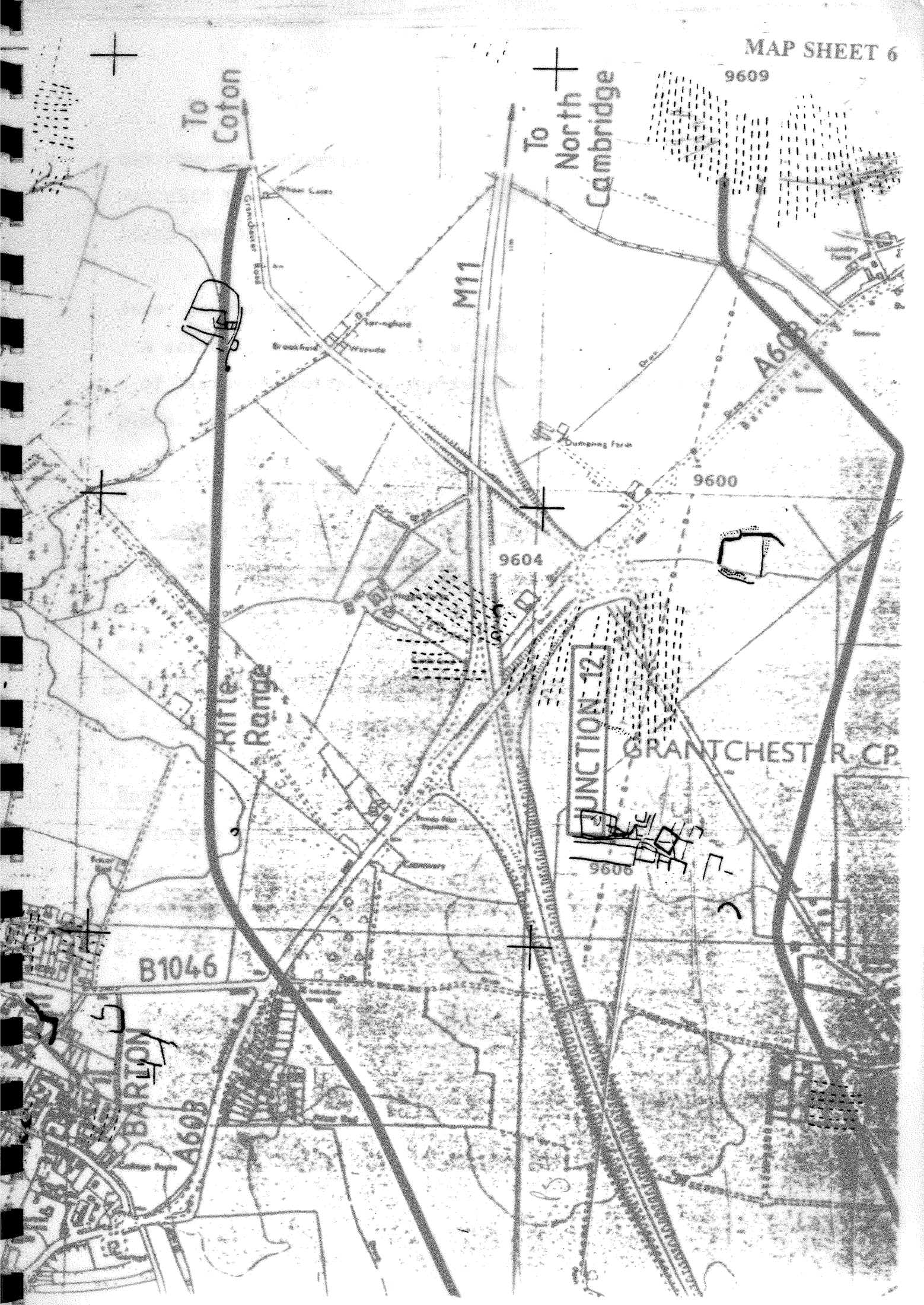
Deas

Low

11

5

6





**MAP SHEET 7; WS/ATKINS**

NAT GRID TL 539000/258000 TO 539000/264000

SCALE APPROX. 1:10,000

**9609 TL425587 Cropmark**

A series of ridge and furrow shown on the cropmark plot.

Of limited importance. The two boundary stones should remain in place.

**9625 TL418582 Cropmark**

Area of ridge and furrow lying to the west of the M11.

Of limited importance.

**9626 TL418582 Cropmark**

Ridge and furrow to the west of the M11 near Coton.

Of limited importance.

**9622 TL441587 Cropmark.**

Ridge and furrow presently under pasture within Moor Barns Farm.

Preservation recommended.

**1196 TL412595 Earthwork**

A moat preserved in Moor Barns Farm.

To be preserved.

**9608 TL427597 Cropmark**

An extensive area of ridge and furrow north of the A1303, surviving only as a cropmark.

Of limited importance.

**9621 TL418599 Cropmark**

Ridge and furrow on the western side of the M11, north of the A1303.

Of limited importance.

**8879 TL413601 Cropmarks**

Mediaeval field ditches on the eastern edge of the present corridor.

Of limited importance.

**9534 425606 Cropmarks**

Series of curvilinear ditches with a possible ring ditch lying south of Girton.

Further assessment required, initially by trial trenching followed possibly by excavation.

**8949 TL414618 Cropmarks**

The cropmark plot shows a series of field systems, sub-rectangular enclosures, and a trackway.

Further assessment will be required initially by fieldwalking and trial trenching probably leading to excavation.

JUNCTION

1196

9621

9622

8879

A1303

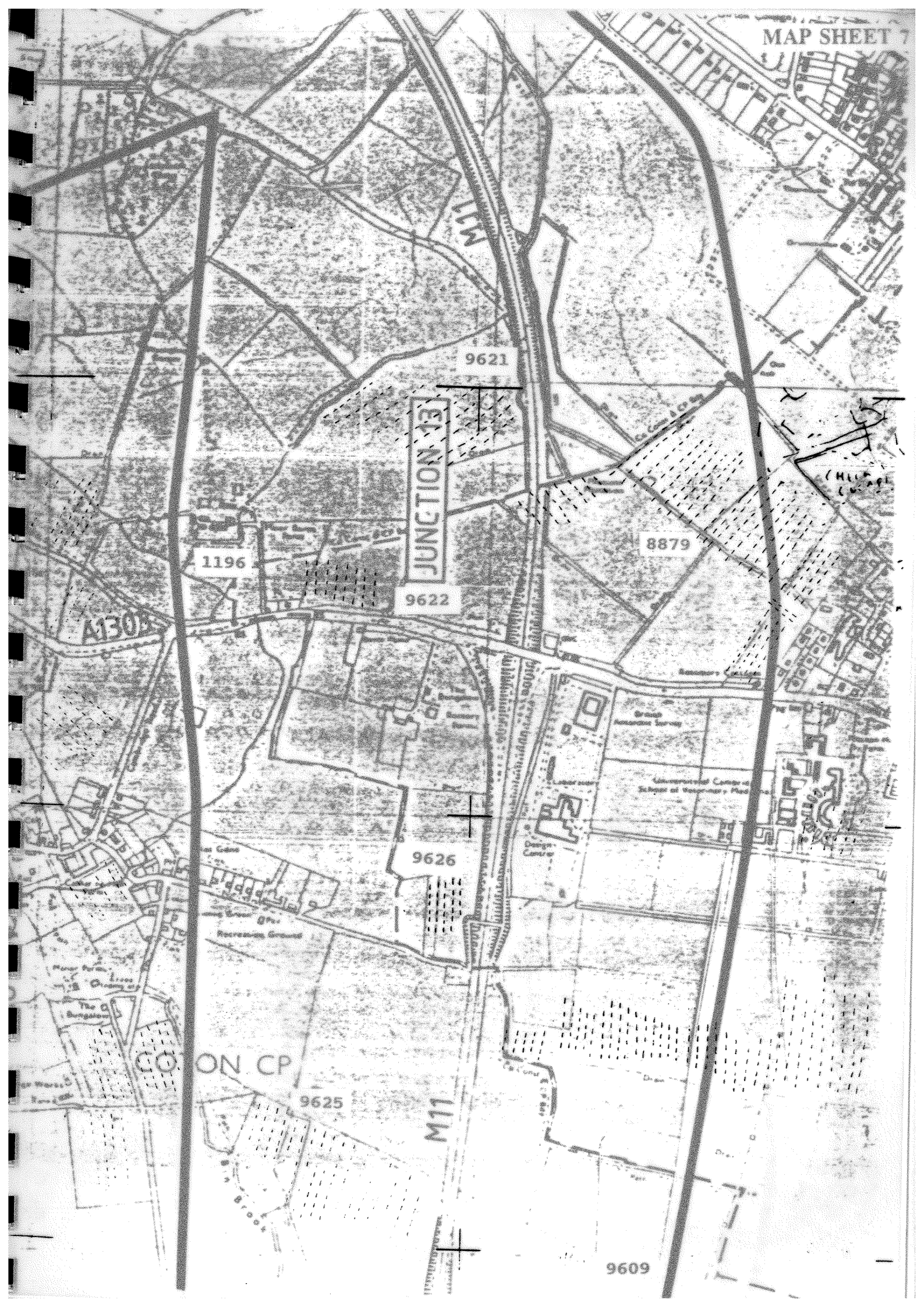
9626

ON CP

9625

M11

9609





JUNCTION 14

LOELY GIRTON CF

LOELY A45

JUNCTION 13

9534

8879

1196

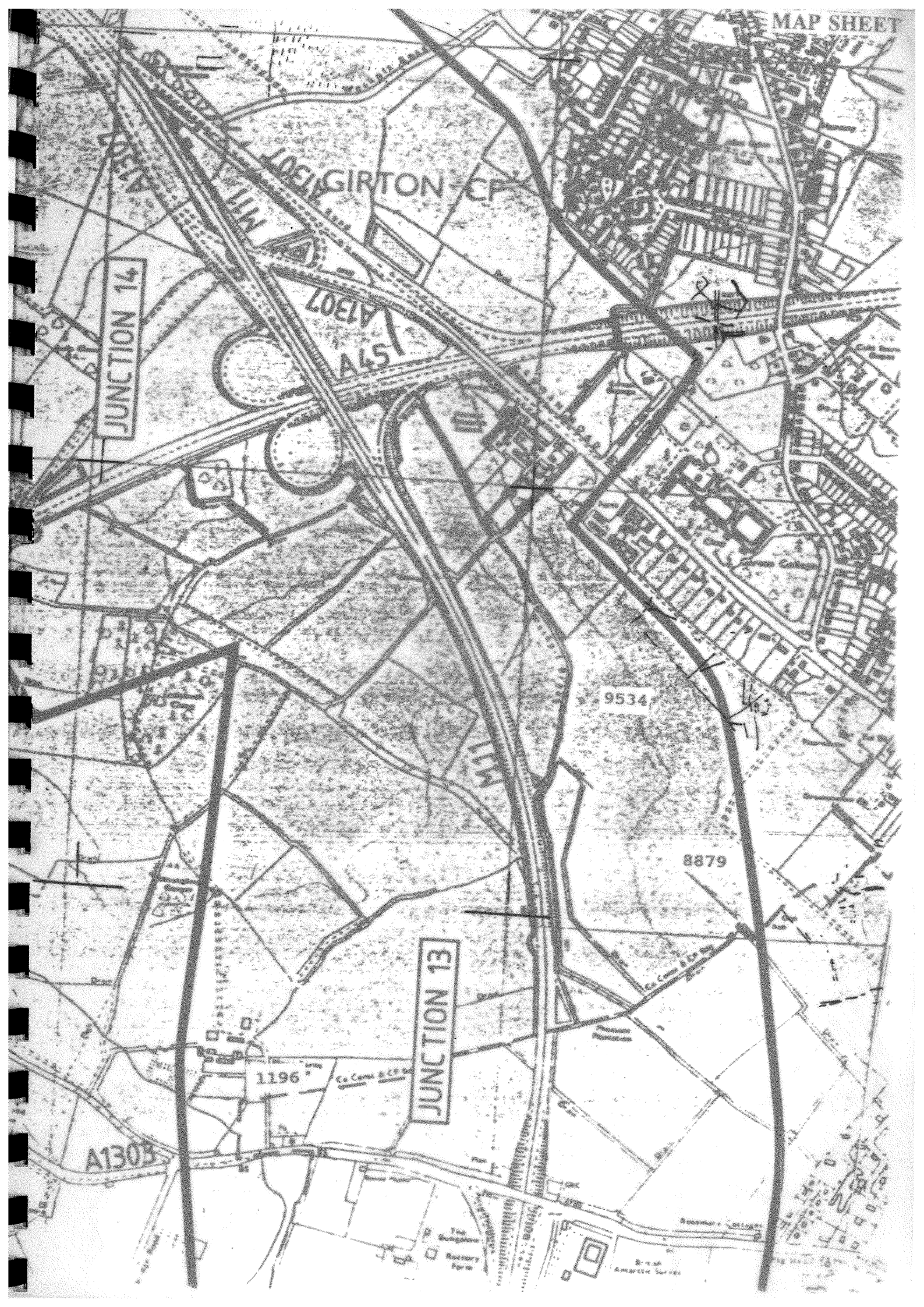
Co Const & CF B

A1303

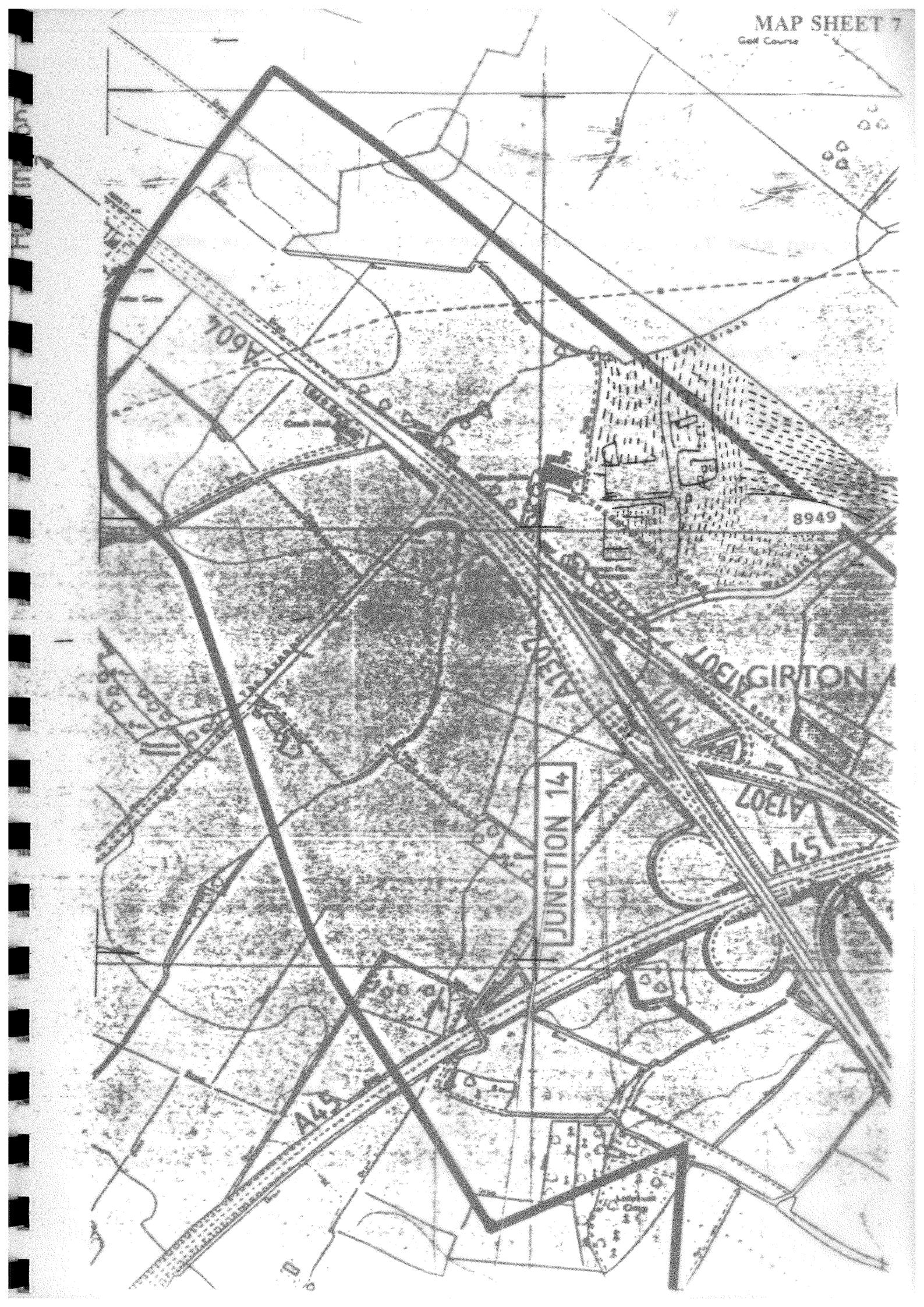
The Sunning  
Rectory Farm

Boosey's College

B-4-5  
Awarde Survey







## 6.0 Recommendations for future work.

6.1 The archaeological constraints noted above will help narrow the choice of route.

6.2 When the corridor is narrowed further assessment work should start on the sites within the affected area. It should be remembered that most sites are on arable land and are therefore normally available for archaeological work between August and November. Co-operation from the land-owners will be required, which will need careful negotiations. Assessments at this stage will help define areas of constraint and clarify where further work is needed.

6.3 As soon as the route is known, a fieldwalking programme should be initiated along the length of the proposed area. At the same time, plans should be made for excavations of sites which will be damaged or destroyed. Large-scale sites will probably need two seasons work, especially if prior assessment by trial trenching is required. These seasons are likely to be constrained by the agricultural year and therefore careful planning is needed to ensure completion well before construction begins.

6.4 Despite every attempt to identify sites in advance, it is always possible that unexpected discoveries will be made during construction. There should be provision for an archaeologist to be available while earth-moving operations are in progress, with the ability to call in a small expert team if an emergency

occurs. There should be close co-operation with the resident engineer to avoid any unnecessary delays or loss of archaeological information.

6.5 Ownership of finds. It should be specified that all archaeological artefacts should be deposited in a local museum or archaeological store. Funds to cover this should be included in the budget.

6.6 Provision should be made for all necessary post-excavation analysis and conservation of artefacts leading to publication of the excavations and field-work.

#### **Acknowledgements**

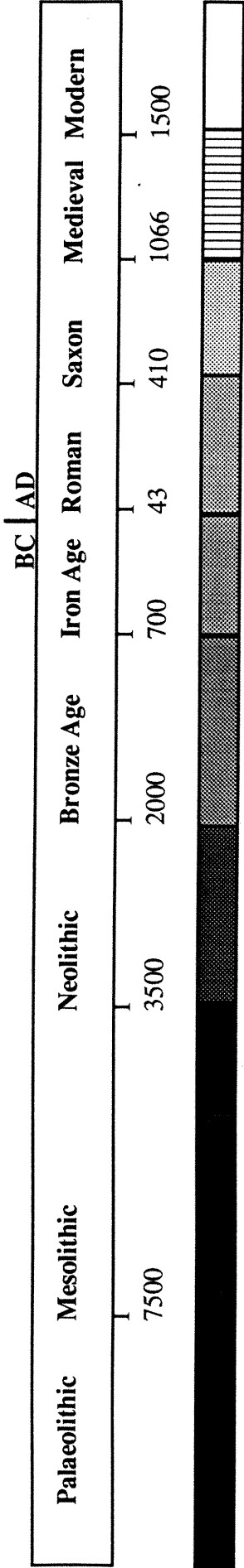
I would like to acknowledge Mr J.Ette, Assistant County Archaeologist of the County Councils Archaeological Section for guidance and advice on the road improvement (highways) schemes, for assistance with the field work and assessment of the archaeological monuments.

**S.N.KEMP A.I.F.A.**

**DEC. 1990**

**COUNTY ARCHAEOLOGICAL DEPT.**

Archaeological Timechart





## Glossary of Archaeological Terms

**Artefact:** Any object made by people. Generally this word is used for small finds such as pottery, stone tools, or metal objects, but it can be used in a much wider context in that the landscape we have today is a product of human activity and is thus an artefact itself. Artefact scatters (finds scatters) are collections of artefacts found together at one location.

**Barrow:** Burial mound. Barrows can be long, round, or even square, and were generally surrounded by at least one ditch. Barrows are further subdivided by form into various types belonging to these general categories. As a means for burying selected individuals they were used throughout the later Prehistoric, Roman and Saxon periods.

**Beaker:** Prehistoric period c.2000-1500 BC covering the transition from the Neolithic to the Bronze Age, when a type of highly decorated pottery called beakers became evident.

**Bronze Age:** Prehistoric period c.2000-700 BC when bronze was used for many types of tool and weapon.

Causewayed camp: A Neolithic enclosure of several acres with one or more concentric ditches interrupted by causeways and irregular internal banks. These enclosures are believed to be ceremonial/ritual monuments rather than settlement sites.

Croft: An enclosed piece of land or smallholding, usually attached to a house.

Cropmarks: Archaeological features below the ploughsoil can affect the growth of sensitive crops through moisture retention or loss. For example the growth of cereal crops over buried ditches and pits will encourage rapid growth leading to tall, dark coloured plants, whereas walls and roads will lead to stunting and faster yellowing of the crop. These discrepancies in crop growth can be detected easily from the air, and by taking photographs the cropmark patterns can be plotted onto maps and given provisional interpretation.

DMV: Deserted medieval village. For various reasons Medieval settlements were sometimes abandoned or shifted their location. Earthworks of the old village can often be seen showing the position of house platforms, crofts, lanes, and ponds.

Earthworks: Archaeological features that are still extant above ground as banks and ditches, platforms, roads, ponds, canals, etc. They were either constructed of soil or have been covered by it at a later date, leaving the archaeology showing in relief.

Enclosures: An area defined by a continuous surrounding ditch. These may be enclosures around human settlement, fields, or paddocks for stock. Rectilinear enclosures are ones with straight sides and corners, whilst curvilinear enclosures are ones with rounded sides.

Field system: An area with ditches or banks that show a systematic pattern of enclosures, trackways, and features that can be seen to run parallel to one another, or lead off from one another to form an intelligible pattern.

Fieldwalking: Technique of archaeological survey. Walking over ploughed and weathered soil an experienced observer can collect many ancient artifacts, and by plotting the distribution of such find spots on maps an idea of the occupation and use of the landscape can be built up for each period of the past.

Finds scatter: Finds are artifacts, or other objects associated with human activity, for example bones or fire-cracked flint. A finds scatter is where a collection of such objects has been found together.

Fire-cracked: Flint that has been broken up by extreme heat also shows crazing lines, and is often referred to as burnt, crazed or "fire-cracked" flint. The burning of flint often came about in the cooking process when pottery was too fragile for being used in direct contact with a fire, and so stones were heated for this purpose and thrown into a cooking pit, or into water to boil it.

These burnt stones (or fire-cracked flints) can also be referred to as "pot boilers" and they indicate the presence of a prehistoric settlement site.

**Flints:** Flint is a type of stone that can be worked by chipping to make fine and sharp tools, such as arrowheads, blades for knives or sickles, scraping tools, or even axes. It can be polished to make a smooth finish, and good quality flint could be brought in to an area from far away. Worked flint can often be found in the fields, showing human activity. Sometimes these are tools, but often they are just the by-products of flint working.

**Funerary:** Adjective for an object or structure related to burial practises, inhumation or cremation of the dead, and associated ceremonies.

**Furlong:** This term is used for a piece of land in Medieval cultivation that had a group of ridge and furrow all lying in the same direction. Later this term became used as a measurement of length equalling 220 yards. A furlong boundary was the edge to such a piece of land, and often survives today in the form of a low bank visible on the ground and from the air.

**Headland:** see "Ridge and furrow".

**Henge:** A late Neolithic circular monument with one or more ditches and an internal bank, broken by one or more entranceways. They may contain wooden or stone structures. Henges are believed to be ritual/ceremonial monuments.

**Holloway:** A track that has been hollowed out by long usage.

**Iron Age:** Prehistoric period c.700 BC - 43 AD when iron was used extensively for tools and weapons. The period traditionally ends with the Roman invasions of 43 AD but in fact there was a considerable time of adjustment after this date when the Iron Age way of life continued with little change from Roman influence.

**Medieval:** Historic period that begins with William the Conqueror's invasion in 1066. Post-Medieval is generally considered to date from 1500.

**Mesolithic:** Prehistoric period c.7500-3500 BC with a predominantly hunter-gatherer economy leading onto herding and farming, spanning the period between the last Ice Age and more settled farming communities of the Neolithic.

**Millenia:** Thousands. Millennium a period of 1000 years.

**Moated site:** In the Medieval period moated enclosures proliferated. An area surrounded by water filled ditches would leave a platform or island on which to build a house. There were several reasons for this:

defence in times of lawlessness, a ready source of water for the needs of the house and an anti-fire measure, a handy reservoir for fish and water-fowl, and in response to the demands of fashion and prestige. These moated sites were often manors, and occasionally old manor houses are still to be found enclosed by their moat.

**Neolithic:** Prehistoric period c.3500-2000 BC when early farming predominated the economy and pottery was introduced. Stone tools of fine workmanship were produced and exchanged over long distances, whilst metal was not used.

**Palaeolithic:** Prehistoric period before c.7500 BC spanning the early development of mankind from hominid species through to modern humans. Stone and bone tools were made and a hunting-gathering lifestyle was followed.

**Pollen:** Plant grains with outer skins remarkably resistant to decay, especially in buried or wet conditions. The study of pollen from archaeological contexts can tell us about ancient environments through identifying which communities of plants lived in the area at that time.

**Ridge & furrow:** Medieval cultivation techniques led to a phenomenon of corrugated fields. Strips of land were allotted to individuals and a furrow was left between one person's strip and the next, leading to the corrugated ridge & furrow effect. An area of land with all these strips running parallel was called a



furlong.

These strips usually followed a slightly sinuous course, an elongated S shape to help in turning the plough at the end. Where the strips ended and the ploughs turned soil would be deposited and a "head" would be created. After a time these may form a boundary in their own right and are called headland boundaries. Ridge and furrow shows up as cropmarks on air photographs, and more rarely as earthworks in pasture fields.

Ring ditch: A continuous circular ditch which is all that remains of a ploughed out round barrow, or the drainage ditch (eavesdrip gully) that surrounded a round-house.

Roman: Historic period 43-410 AD when most of Britain was part of the Roman empire. The term Romano-British is now widely used to describe the people of this period as they were not Roman themselves, but they were a provincial manifestation of the empire developing in a unique way. 410 AD was the date the legions were withdrawn, but Romano-British culture continued for some time into the 5th century in tandem with Anglo-Saxon migration.

SMV: Shrunken (shifted) medieval village. (see DMV).

Soilmarks: Archaeological remains often show in ploughed fields by reason of the different soil of which they consist. They can be visible at ground level but like cropmarks they are most clearly seen and interpreted from the air.

Stratigraphy: Order and relative position of strata. Deposits in archaeological sites will be layered one on top of another, with the highest layer being the latest deposit, thus giving a chronological relationship to the layers and the artefacts within them. Features (such as ditches, pits, or walls) cut through these layers will obviously date to later events, and will in turn contain their own discrete sequence of deposits. On the other hand features that have been covered by layers are obviously earlier than the deposition of those layers that seal them.

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