



INDEX DATA	RPS INFORMATION
Scheme Title M1: Widening J10-15 ^c	Details Arch Impact Ass. prem surv results.
Road Number M1.	Date Dec '92
Contractor Beds CC	
County Beds.	
OS Reference	
Single sided <input type="checkbox"/> Double sided	
A3 <input type="checkbox"/> Colour <input type="checkbox"/>	

**M1 WIDENING JUNCTIONS 10-15
ARCHAEOLOGICAL IMPACT ASSESSMENT
PRELIMINARY SURVEY RESULTS**

BEDFORDSHIRE

DECEMBER 1992

PART I TEXT

M1 WIDENING PRELIMINARY ARCHAEOLOGICAL SURVEY

PART 1 TEXT

1 GENERAL INTRODUCTION

1.1 The background to the scheme

1.2 Methodology

1.3 Archaeology and the M1

2 M1 WIDENING: THE SURVEY REPORT

2.1 THE TOPOGRAPHY

2.2 THE ARCHAEOLOGICAL AND HISTORIC ENVIRONMENT

The Prehistoric Period

Palaeolithic

Mesolithic

Neolithic

Bronze Age

Iron Age

The Historic Period

Roman

Saxon

Medieval

3 M1 WIDENING: THE SURVEY RECOMMENDATIONS

4 SUMMARY OF SURVEY RESULTS

PART II THE GAZETTEER

5 THE GAZETTEER

BIBLIOGRAPHY

PART III THE MAPS

6 SURVEY AREAS, LAND USE, GEOLOGY

LIST OF ILLUSTRATIONS

PART II

<i>Table</i>	1	RAF photographs held by Conservation & Archaeology Section of County Planning Dept	8
	2	Hunting Surveys/Aerofilm's photographs held in Bedfordshire County Planning Dept	9
	3	Recommendations for further archaeological assessment on known sites	31
	4	Recommendations for further work in areas which from their geography indicate the possibility of archaeological survival	32
	5	Recommendations for further work in areas which either through place name evidence or historical association suggests archaeological survival	35
	6	Sites whose location will suffer as a result of further road widening	36
	7	Summary of recommended fieldwalking in Stage 3a	38
	8	Summary of recommended detailed geophysical survey in Stage 3b	39
<i>Figures</i>	1	The prehistoric period	20
	2	The Roman period	22
	3	The medieval period	27
	4	Location of all HER sites	35

PART II

<i>Table</i>	9	Location of survey areas	42
--------------	---	--------------------------	----

PART III

<i>Figure</i>	4	Survey location plan	
<i>Maps</i>	1-11	Survey plots, landuse, drift geology	

Preface

This report has been prepared by Bedfordshire County Council Archaeology Service (Excavation Division) Michael Dawson (Senior Archaeological Field Officer), Dawn Enright (Archaeological Supervisor) and Stephen Coleman (Historic Environment Record Information Officer). The maps were prepared by Cecily Marshall using the GIS system of the County Council's Planning Department. We are indebted to the landowners along the route upon whose co-operation we depended for access to urban and farmland alike.

*St Mary's Archaeology Centre
Bedford
December 1992*

1 INTRODUCTION

This report has been commissioned by Acer Consultants Ltd on behalf of the Department of Transport.

The work has been undertaken by the archaeological units of the Bedfordshire, Northamptonshire and Buckinghamshire County Councils the project as agreed by the relevant County archaeological Officers. Liaison between the three organisations has been directed towards providing a unified approach in fieldwork, analysis and reportage. Whilst there is inevitably a degree of diversity in the various house styles such as in, design and layout, it has proved possible to maintain conformity to a great degree in the presentation of the work.

This introductory section, and the succeeding one in which the methodology of this stage of the assessment is presented, are therefore the same in all three reports. Paragraphs which relate only to a single county have been printed in italics.

1.1 THE BACKGROUND TO THE PRESENT SCHEME

Over the past three or four years the context in which road schemes at both national and local level has changed significantly. Archaeology now has a much higher profile in the planning process. The concept of an evaluation of the archaeological potential of the area affected by a particular development being undertaken as a matter of course before a decision is made on the proposals is linked to the publication in 1990 of Planning Policy Guidance note 16 (PPG 16) on Archaeology and Planning. PPG 16 places the responsibility for furnishing an archaeological evaluation of a development's consequences with the developer.

Of equal importance are the arrangements recently agreed between English Heritage and the Department of Transport. These provide for the direct funding by DTp of assessments on DTp road schemes. Full scale investigations occasioned by such schemes are provided for by a block grant administered by English Heritage.

Linear developments such as roads can be enormously deleterious to the archaeological resource. However they provide an opportunity to examine a transect across the landscape and the spatial and temporal variability of human behaviour within it. In addition the relatively long period of time between inception and construction means that archaeological implications can be taken on board at the earliest opportunity, and a detailed programme of investigation and mitigation can be developed. In order to achieve this, dialogue between developers, planners and archaeologists is crucially important.

This dialogue has developed in different ways in different parts of the country, and the precise details vary amongst the three counties. Approaches are however

sufficiently similar to be able to identify a number of stages in the archaeological input to road schemes. These may be summarised as follows:

- 1 Desktop study (review of existing data held in the County Sites and Monuments Record)
- 2 Initial Assessment (documentary study and initial rapid field study)
- 3 Detailed Assessment (fieldwork including systematic fieldwalking, topographic and geophysical survey and trial excavation).
- 4 Site investigation (detailed excavation of those sites which it is not possible or desirable to protect)
- 5 Watching brief (during initial stages of construction)
- 6 Archive and publication (synthesis and dissemination of results)
- 7 Monitoring of long-term secondary effects of road construction on the archaeological resource

In the context of this seven stage model programme, the work presented in this report is equivalent to **Stages 1 & 2**.

The objectives of this study are:

To define known extent of the archaeological deposits within the immediate vicinity of the M1 between junctions 10 to 15 and to provide a preliminary evaluation of their importance. At this stage note has been taken of sites immediately adjacent to the study area defined on the maps supplied by Acer Consultants, as these peripheral sites may be expected to have a bearing on the archaeological deposits to be located within the study area.

To assess the potential for new sites as yet unrecorded.

To establish the present land use character and the potential for subsequent stages of survey and evaluation.

To produce a free standing report summarising the above

The report is presented as three volumes: **1 The Preliminary Survey Text, 2 The Gazetteer and 3 The Maps**

Whilst every effort has been taken in the preparation and submission of this report in order to provide as complete an assessment as possible within the terms of the

brief, the Archaeology Service of Bedfordshire County Council cannot accept responsibility for consequences arising as a result of unknown and undiscovered sites or artefacts.

Proposals regarding contingency arrangements in respect of unexpected discoveries arising during the course of construction works should be made as a part of the recommendations arising from the next (detailed assessment) stage of archaeological work.

1.2 METHODOLOGY

The information presented in this report has been compiled from various sources, from field records to desktop study.

Field data:

Field data was gathered as follows. Following contact established with landowners and/or tenants, each parcel of land was visited. When permission to walk over was not available (see below), the parcel was inspected, if possible, from public rights of ways.

The basic unit for information collection was the Ordnance Survey land parcel, as shown on 1:2500 plans. The primary numbering system consists of a set of consecutive survey numbers which relate solely to this project and were assigned to land parcels observed in the field. Survey record numbers were allocated by mutual agreement between the three counties thus Bedfordshire 1-1000; Buckingham 1001-2000; and Northamptonshire 2001 onwards. Where these are used in the report they are prefaced by the letter F so as not to be confused with SMR/HER numbers (for details of SMR/HER see below page 10).

For each land parcel the following categories of data were recorded:

Date of visit
OS Parcel No
Civil parish
Other descriptive name in current use
Owner tenant (where different from or supplementary to existing data)
Present land use
Former land use (where evident, or where volunteered by the owner/tenant)
Topography
Direction of slope
Presence and location of watercourses
Visible geology
Health & safety considerations

Description (includes all potentially useful information that can be gleaned from ground inspection or other records)

Field visits were brief, taking only the length of time required to collate the data required at this stage. This was sufficient to detect any possible earthworks and to describe local topography and land-use. Quantitative data collection (such as artefact retrieval from systematic fieldwalking of sample areas) did not form a component of this stage of the assessment.

Non field data:

Non field data was collected from a variety of sources.

Sites Monuments and Buildings Record (SMBR) The most important sources were the County Sites Monuments and Buildings Records for the three respective counties. These are record of all archaeological sites and finds relating to a particular County. SMBR data has been compiled from a wide range of sources over a period of many years. It represents the repository for virtually all collated archaeological data, and is constantly being updated.

In Bedfordshire the SMBR is part of the **Historic Environment Record** in which each site is identified by an **HER** number. The record is held and curated by the Conservation and Archaeology Section of the County Planning Department of Bedfordshire at County Hall.

Aerial photograph data.

Air photograph data was available from both national and county sources. The two most important national collections are the Cambridge University Committee for Aerial Photography's library, and the National Library of Air Photographs held by the Royal Commission on the Historical Monuments of England, located in Swindon.

In Bedford the Planning Department and HER holds a large collection of air photographs, both vertical and oblique. This collection includes copies of prints from the Cambridge and Swindon collections. The collection also includes prints obtained from local sources, often oblique and vertical photographs taken by the RAF between the mid 1940s and mid 1950s. The County Planning Department holds vertical photographs for 1968, 1976, 1981, 1986 and 1991. All oblique and vertical prints relevant to the survey corridor were examined.

In addition the following photographs were consulted:

Table 1 RAF photographs held by the Conservation & Archaeology Section, County Planning Department:

CPE/UK/1792 3131-4, 3150, 4135-7, 4200 (11.10.1946)
CPE/UK/2159 3205-6, 3299-300, 4206, 4302 (13.6.947)
CPE/UK/1897 3207, 3252, 4208, 4253 (12.12.1946)
CPE/UK/2306 5137, 5181-2, 5366-7, 5409 (11.9.1947)
541/479 - 3399-400, 4400-1 (7.4 1950)
58/RAF/1342 - 0127, 0170 (18.1.1954)

Table 2 Hunting Surveys/Aerofilms photographs held in Bedfordshire Planning Department

1968: 2/6691	1976: 10/1616-7	1981: 11/9259
3/6772	11/0984-6	12/9275-7
4/6818	12/1008-11	13/9391-3
5/7997	13/1103-7	14/9491-6
6/8068-9	14/1188-92	15/9536-8
7/8113-6	15/1265-6	16/9630-3
8/3221-5	16/1318	17/9684
9/7386-8	17/2148	18/0105
10/7486-8	18/1491	19/0152
11/7501-2	19/1535	20/9975-6
		21/0025
1986: 12/1900	1991: 2/6757	
13/1912-6	3/6800-1	
14/2038-41	4/6862	
15/2067-9	5/6157	
16/2190-4	6/5498	
17/2277-81	7/5422-4	
18/2336-8	8/5366-9	
19/2421-2	9/5273	
20/2475	10/5232-7	
21/2567	11/5099-5100	
22/2619	12/1661-3	
23/2640	13/1645-6	

Cartographic and Documentary Sources.

Documents and maps held at the respective County Record Offices were examined and early editions of the large scale (25" and 6") Ordnance Survey maps were inspected. The tithe maps and awards were examined for each parish, and field names were collated. Of more significance, enclosure maps and awards were examined. Earlier maps, including parish terriers, glebe surveys and estate maps were also examined wherever available.

In Bedfordshire the HER holds a set of transcripts of historic maps at a scale of 1:10560. These are based largely on originals in the County Records Office, also based in County Hall. Associated parish survey essays for most of the historic parishes detail the development of occupation and the historic landscape in each parish and provide a context for individual sites. Relict ridge and furrow recorded from aerial photographs, fieldwork and historic maps has been plotted as part of the series of parish surveys

1.3 ARCHAEOLOGY AND THE M1: THE BACKGROUND

The original construction of the M1 in the late 1950s and early 1960s was not preceded by an archaeological evaluation, nor in Bedfordshire did any excavation take place on the route once construction had begun. Such activities developed with increasing road building towards the end of the 1960s, a process charted by Rahtz in his survey *Rescue Archaeology* (Rahtz 1974). In the early 1970s the growth of regional archaeological organisations either from local amateur societies or through the work of dedicated locally based individuals led to the compilation of Sites and Monuments registers which sought to collate all known information regarding archaeology, and in Bedford's case historic buildings (Baker 1983). Archaeological work in the County has been continuous since the early 1970s (Baker & Simco 1982) principally by the County Council's Archaeology Service but also in more restricted areas by local societies such as the Manshead Archaeology Society, the Ampthill Historical Society and the Harlington Heritage Trust. Results of work carried out by all these bodies, where relevant, has been drawn upon for this report. In recent years the rise of the Environmental Impact Assessment Report has led to a greater awareness amongst commissioning bodies such as the DTP, the County and District Councils for archaeological impact reports to be compiled before final ratification of route or development plans. Concurrent with this movement towards increased care for the environment has been the practice of archaeologists concerned with the preparation of reports to consider the wider landscape. Characterised by Hoskins's classic essay, (Hoskins W G 1974) it is an essential part of assessment reports such as this to recognise that although only a percentage of archaeological sites are presently known, others can be predicted through detailed knowledge of local topography and settlement patterns.

In Bedfordshire work towards developing a regional perspective for the archaeological past has begun with the joint publication by the County Council and the Royal Commission on Historical Monuments of the *Survey of Bedfordshire. The Roman Period* (Simco 1984). In this report, an attempt is made in section 3, to draw together the topographic and archaeological evidence to illustrate the potential of the landscape through which the M1 passes.

In conclusion it is incumbent upon the developer to recognise that this is a preliminary report in two senses. Firstly in that where possible this report should be used to influence decisions about aspects of the project that may damage known archaeological sites at as early a stage as possible. Secondly that the report

essentially sets out the parameters for further detection of hitherto unrecognised sites: such detection typically includes techniques of remote sensing as well as detailed fieldwalking. Thus the report is only the starting point of further detailed archaeological impact assessment.

2 M1 WIDENING: THE SURVEY REPORT

2.1 TOPOGRAPHY

Introduction

The route of the M1 as it passes through Bedfordshire crosses an area of considerable topographical variety. In the south the motorway enters the county from the Chilterns before passing through a gap in the Greensand Ridge and crossing the clay vale *en route* to Buckinghamshire, north of the village of Salford.

The drift geology underpinning this landscape owes much to the fact that Bedfordshire was on the margins of the fullest extent of the ice sheet during the Last Glacial period. It is at the time of the retreat of the ice in c8300bc that the first extensive evidence of human activity is encountered.

At every period human activity has been heavily influenced by topography, and this is used to predict the possible position of sites where no further evidence is currently available. In some cases the absence of evidence is particularly misleading since some sites may have been sealed and protected later deposits. For instance where flooding of river valleys has led to alluvial deposition this may have resulted in the burial and preservation of sites. Similarly on lower hill slopes colluvial build up in areas of intense agriculture is important to the survival of sites.

Detailed discussion of the topography

The preferred route of the M1 widening scheme largely follows the existing motorway. In this aspect the project is unique in that options for widening are extremely limited. Added to this is the fact that our knowledge of the archaeological potential in the area is limited to analogy with other areas of the county, as no assessment was carried out during the original construction.

The M1 crosses the Bedfordshire/Hertfordshire border at Slip End. The road occupies higher ground above the watershed of the Ver-Colne which flows southwards into Hertfordshire and St Albans, the Roman town of Verulamium. The landscape here is dominated by clay with flints which in the river valleys have been eroded through to the Upper and Middle chalks but where deposition of river gravels has taken place. The soil type is gleyed brown earth of the Batcombe series. Present land use is arable with a large area of park land at Stockwood Park (F141-156, 161).

Passing into the Luton Dunstable conurbation by Chaul End the route passes through dense urban settlement before emerging from a cutting through a ridge of Melbourn rock on Lower chalk (F137), just west of the source of the river Lee. The road line then climbs the southern slope of the undulating chalk landscape at

Chalton Cross farm. Here the Lower chalk marks a significant change to an area of lighter soils of Icknield rendzina (F133). The soils however are not uniform and on the east side of the route, on a different geological base, the soils are brown calcareous soils of the Coombe series (F167). Passing between Chalton and Upper Sundon the preferred route is restricted to the west side by the railway, both routes exploiting the low ground west of the Sundon Hills. Here the drift is a combination of exposed Totternhoe stone and Lower Chalk overlain by calcareous gley soils of the Mead series (F116-130).

There is a significant change in the landscape at the Toddington service area where the route passes into a more fragmented area of hillocks and small river valleys. The area between Upper Sundon, Harlington and Toddington provides the headwaters of the Flit which flow east towards the Ivel at Biggleswade, restricted by the Greensand Ridge to the north. The hills themselves comprise a mixture of sands and clays whilst the solid geology is gault clay (F162-168, 101, 104-105), the soils in this area are calcareous gley soils of the Coombe, Mead and Wicken series as far as Mill Farm after which they are non calcareous gley soils of the Oak series (F101, 104 114).

The motorway route exploits the gap in the Greensand ridge from Tingrith (F95) at Ridgmont as it turns westwards. From Harlington to Tingrith the soils revert to the non-calcareous gley soils of the Mead series (F96-100) but on the ridge itself from the Priestley Plantation (F75-78, 80-82, 86-88) there is band of brown earth soils of the Cottenham series on the west side of the valley of a stream draining south into the Flit. The areas of plantation, Kingshoe Wood and Flitwick Plantation, have both non calcareous soils of the Oak series (F83) and calcareous gley soils of the Mead series (F84 & 85).

The brown earth soils continue to occur principally in areas (F61, 64, 65a, 179, 66, 67a, 180, 75a) east of Ridgmont in a landscape otherwise dominated by the non calcareous gley soils of the Oak series.

North of Ridgmont (F60) the landscape is dominated by the Oxford clays in which there is band of alluvial or glacial drift gravel, occurring at F30-33 & F177 near Aspley Guise. The area is notable for its islands of gravel within the clays which are presently exploited by quarries like that at Salford. Bands of alluvium have built up around the streams draining into the Ouzel especially south of Whitsundoles Farm (F6-7 & 17).

The deposition of alluvium is an aspect of the environmental development of the area that has been most extensively investigated in the larger rivers the Ouse, Flit and Ivel. Probably the earliest flooding leading to alluvial deposition came about with increasing woodland clearance in the Neolithic period, although there are further periods of extensive deposition towards the end of the Iron Age in the 1st century BC; similarly in the 4th century AD there appears in some areas to be an increase in the level of alluvial deposition. In the medieval period peat formation in the flood plains of these rivers took place and in the flat valley areas of the Flit

south of the Greensand Ridge peat formation was extensive as early as the late Roman period.

2.2 THE ARCHAEOLOGICAL AND HISTORIC ENVIRONMENT

PREHISTORY

The Palaeolithic Period (c150,000bc - c8300bc)

The evidence of prehistoric activity in the areas crossed by the M1 must be seen in the context of the wider region, to avoid the report becoming fragmented and incapable of clear analysis. Any evidence relating to this period is exceptionally rare and of great importance.

The first evidence of human activity from the area of the M1 route is that from the parish of Caddington and comprises tools of the Lower Palaeolithic, dating to before c 40,000bc (Coleman 1985 13). The painstaking work by Worthington Smith in piecing together flint implements and the waste produced in their manufacture showed clearly that intact working surfaces dating to the Lower Palaeolithic had survived later ice advances.

The environment of the Lower Palaeolithic in the Caddington area was described by Sampson (1978) as rough grassland with marsh or shallow lakes. This may have given way to dense forest dominated by oak with hazel and juniper at its edges.

Further evidence of human activity is from the Late Upper Palaeolithic period, c8300bc, during the period after which the ice had retreated from the area of the south Chilterns. Environmental evidence suggests this is a time during which the tundra landscape gave way to an environment dominated by birch and pine forests. Associated with stands of timber, early soil formation was taking place in the Ivel valley, at Warren Villas quarry; at the same site within a comparatively short period, water filled hollows had become peat filled bogs. Into this landscape came hunter gatherers following migrating herds during the summer months. The people of the Late Upper Palaeolithic used flint implements and artefacts from the Palaeolithic are often found. Many such as those at Biddenham, near Bedford, were discovered amongst glacial outwash material, or eroded out of alluvial gravel horizons laid down by fast running glacial streams. Extensive fieldwalking and examination of gravels in the Biddenham loop has recently led to a detailed plan of the redistribution, by erosion, of Palaeolithic flint implements. The tool kits recovered show the range of implements used by these early hunter gatherers.

Flint of the Late Upper Palaeolithic was found in the parish of Caddington at a series of brick pits dug during the 1890s by Worthington Smith; and although the

precise locations have now been lost the potential for further recovery of evidence through fieldwalking in this parish remains high.

The Mesolithic period (c8400bc - 3000bc)

The Mesolithic period is one of continuing hunting and gathering but with a more extensive range of tools and implements. Typically these comprise small and finely fashioned flint points, *microliths*, identified with arrow barbs used in hunting. Such artefacts are most commonly recovered during detailed fieldwalking and assemblages are known from the gravels of the river Ouse east of Bedford (Clark 1991), from the Biddenham Loop (Woodward 1978) and from Caddington (F147) and Chalton (F131)(Hudspith forthcoming). The material from the southern sites were predominantly isolated finds of mainly broken blades and unretouched flakes. The Mesolithic period is notable for the appearance of implements made of materials other than flint. Bone, horn and wooden objects have been found in waterlogged contexts (for example at Starr Carr in the Vale of Pickering) but in Bedfordshire such environmental conditions are rare. The route of the M1 does include areas of alluvial deposition, but the accumulation of peat or waterlogged deposits in proximity to the existing road will have been considerably affected by drainage arrangements now in place. The most fruitful avenue of investigation of Mesolithic material remains fieldwalking.

The Neolithic (c3400bc - c2000BC)

The initial transition from hunter gathering to sedentary farming took place during the 4th millennium BC. The transition is evident in the upsurge of evidence for settlement and other possibly ritual based activity. Flint artefacts remain the most prolific material evidence and extensive excavation of sites means there is now a wider understanding of the period. The Bedford area is rich in neolithic remains. The Ouse valley west of Bedford contains a wide ranging ritual landscape which includes large ditched enclosures as well as areas of human burial. Some suggestion of trade patterns has emerged from the study of specialist tools such as polished stone axes, although the distribution of these may be evidence of more complicated exchange. The movement of people and materials led to the development of the Icknield Way which passes through the parish of Caddington crossing the M1 where the A505 is presently. In close proximity to the Icknield Way finds have been made since the 19th century, most recently in the Caddington area (Hudspith forthcoming) (F116, 132, 133, 134, 145, 146, 147, 186).

Slightly to the south in F149 & 150 flint has been recovered by the Manshead Archaeological Society of Dunstable but this has not yet been published. (Information Dr R Holgate & Mr J Priestley, Inions Farm).

Scatters of Neolithic flints, tools and waste or debitage indicate the survival of working areas in the parishes of Chalton. Yet in the area of Flitwick, evidence

recovered is slight: flint material has been recovered around Flitwick, but the extensive planting by the Dukes of Bedford in the 18th & 19th century, after purchasing large areas of common meadow land may account for the poor recovery. Similarly the extensive woodland in Tingrith and Westoning has probably resulted in the low recovery of finds, although a second factor, poor soils in these parishes, may be important. Poor soils too may be a factor in Steppingly where a similar low recovery has been noted.

In contrast in the north west where the M1 passes close to the parish boundaries of Hulcote Salford and Aspley Guise, deposits of gravels interspersed amongst the clay suggests the possibility of Neolithic survival. In particular excavations at Salford Quarry although primarily of an Iron Age enclosed settlement, recovered Neolithic material. This included a polished stone axe, and from pits Neolithic pottery (Peterborough ware) indicators of some settlement activity.

The Bronze Age (c2500BC - 600BC)

Increasing structural evidence occurs in the Bronze Age much of it relating to human burial but including settlement as well. The use of copper, its alloy bronze and the continued use of flint has widened the repertoire of artefacts recovered. In areas peripheral to the M1, settlement from the Bronze Age has been found at Salford Quarry, and in Caddington a burial mound was known at the junction of Millfield Road and Dunstable Road. On the Dunstable Downs in Kensworth, overlooking the Icknield Way, two barrows were recorded before destruction in 1887 (Worthington Smith 1894 332-9). The position of these barrows suggests that their prominent positions exploited sites where extensive tree clearance emphasised their place in the landscape. This is not an isolated phenomenon and the same principle seems to underlie many such burial sites. Two barrows at Salford Quarry occupying lower ground were nevertheless on a prominent slope. There is some evidence from the county to suggest that Bronze Age settlement is likely to be found on the first gravel terraces of river valleys (Woodward 1978, 1986).

Barrows, whether ploughed out or surviving only as slight earthworks, can still yield evidence of their construction and burial use. The discovery of such monuments can be a matter for techniques such as geophysical prospecting in areas where aerial photography has not been possible or fruitful.

The increasing clearance of the landscape for farmland, either pasture or possibly arable, has been noted at several sites and is accompanied by evidence of land enclosure. Boundaries in the form of pit alignments or linear ditches have been noted, and these may impinge upon the route of the M1 related to the site at Salford Quarry, or more probably the complex of crop marks south of Whitsundoles Farm (HER 14837).

Fieldwalking by groups such as the Manshead Society has recovered flint material from this period in the parish of Caddington (F132, 133, 134, 145, 146, 147, 148).

The Iron Age (c700BC - 1st century AD)

Increasing variety in the Bedfordshire landscape is apparent with the transition to the Iron Age in the early first millennium BC. Settlement forms become more varied and numerous. Ditched and banked enclosures are known from Sandy (Caesar's Camp), Mowsbury, possibly Wauluds Bank in Leagrave and Sharpenhoe Clappers. These typically occupy higher ground whilst on hill slopes and lower knolls more settlement seems to have developed. Some settlements like those at Gold Lane, Biddenham and Salford Quarry continue settlements established towards the end of the Bronze Age whilst that at Harlington Quarry may have been established as late as the 1st century BC. The extensive use of pottery in this period has resulted in wider recognition of sites and extensive areas of probable habitation. At Caddington pottery was found at Aley Green in fields referred to as the Camps. At Chalton in F133 Iron Age pottery was recovered during fieldwalking (Hudspith forthcoming). Further north the linear cropmark at Beckerings Park may be Iron Age: a similar feature running north to south in the Bedford parish of Eastcotts, recently investigated in advance of the Bedford Southern Bypass, was found to be of this date (Dawson forthcoming 1993).

The area of broken country around Mill Farm and the Toddington services, presently under pasture, is likely to have supported Iron Age settlement. In particular the slightly rising ground in F113, and F163 where Iron age pottery has been recovered close to the watercourse on which Mill Farm was built is likely settlement site.

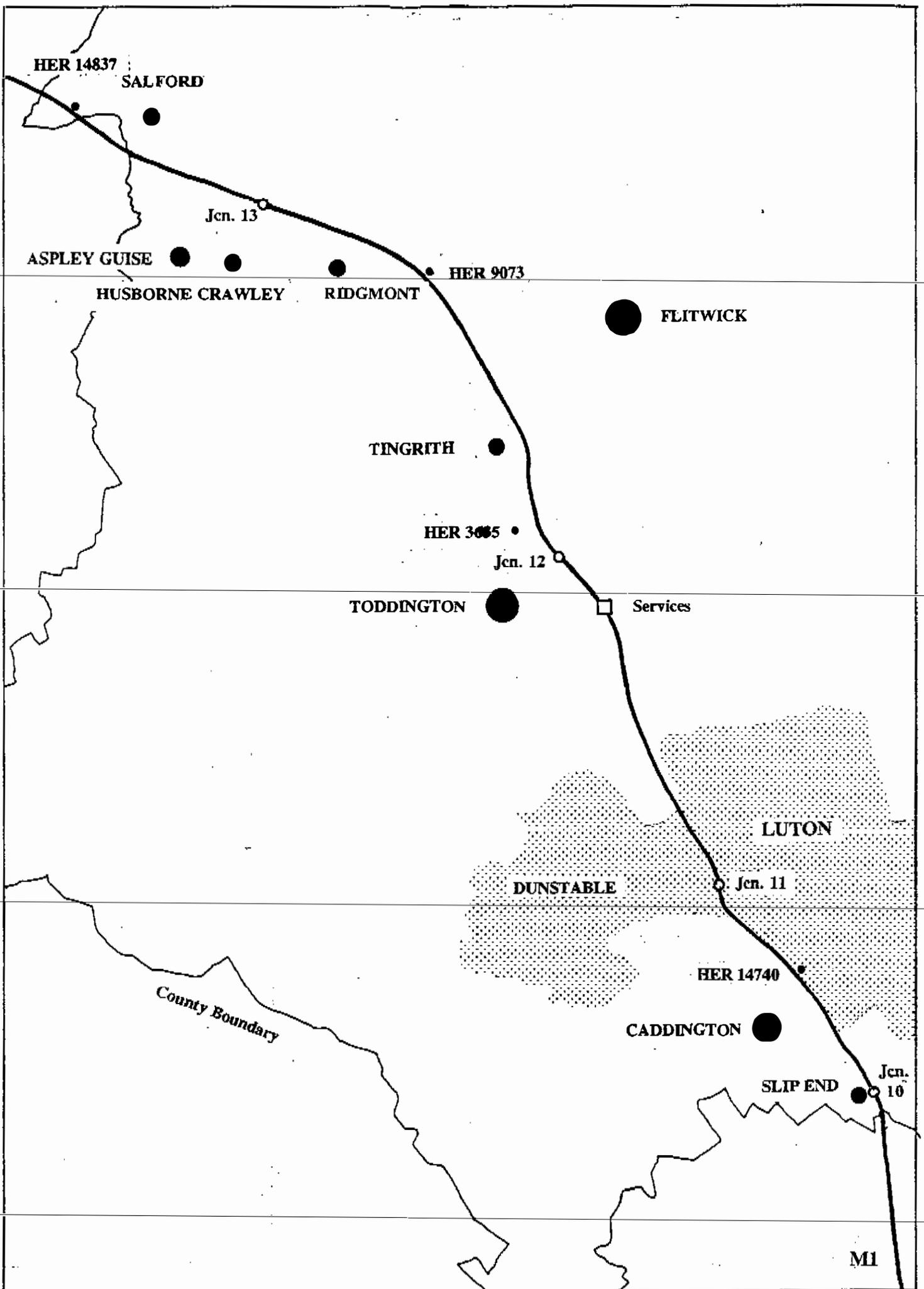


Figure 1: Location of Prehistoric sites known from Historic Environment Record

THE HISTORIC PERIOD

The Roman Occupation (AD43 - AD410)

The impact of the Roman empire was felt in Britain considerably before the invasion of AD 43 through trade and political treaty. In the period after the invasion the construction of Watling Street, the A5, and the fort at Magiovinium (Dropshort Farm), in Buckinghamshire were the first of many changes in the landscape. The subsequent growth of Dunstable as a Roman town (called Durocobravis in the second century Antonine Itinerary) indicates the changed economic situation as well the impact of an administrative system covering the whole of the province of Britannia. The tribal groups of the Iron Age were retained as the focus of further civil organisation. The increased economic activity of the period combined with the production of pottery fired to a higher temperature, the increasing use of metal, coinage and a time of peace resulted in a burgeoning of evidence of all types over previous periods. We can now speak of an hierarchy of civil settlement extending from legally chartered towns through small towns, such as Dunstable, to the country estates or villas down to linear settlements and isolated farms. In each class of settlement are predictable elements such as dwellings cemeteries, agricultural enclosures; for the purposes of this survey rural settlement outside towns is of primary importance.

The quantity of evidence from the Roman period indicates more intensive cultivation of the landscape, but this was not uniform throughout. The clay vale with its poor de-calcified soils has almost no evidence of Roman settlement. In contrast the river valleys Ouse, Flit and Ivel and the marl soils of the chalk not only supported considerable rural settlement but saw the development of larger villa estates. There are many sites in proximity to the M1 from Gorhambury in Hertfordshire, to that at Sheepwalk Hill, Harlington. In Luton in Bradley Road (HER 2846), which crosses the M1 just south of the A505 a pit was found containing 2nd century AD pottery. At Chalton (HER 6659), next to F127, a Roman well was excavated during the construction of the railway opposite F122. At Foxburrow, now the site of the Toddington services, a Roman pottery kiln was excavated in 1874 (HER 95) adjacent to F115 & F168. In 1961 a hoard of 2000 coins was found at Tingrith (HER 236) opposite F91. In the area adjacent to the hoard were the remains of burning and a cooking vessel suggesting further settlement evidence. At Segenhoe, F180, the discovery of a Roman quern stone suggests the presence nearby of a Roman settlement (HER 1972).

Recent work has revealed a concentration of Roman pottery (F186) around Inions Farm Caddington (Hudspith forthcoming).

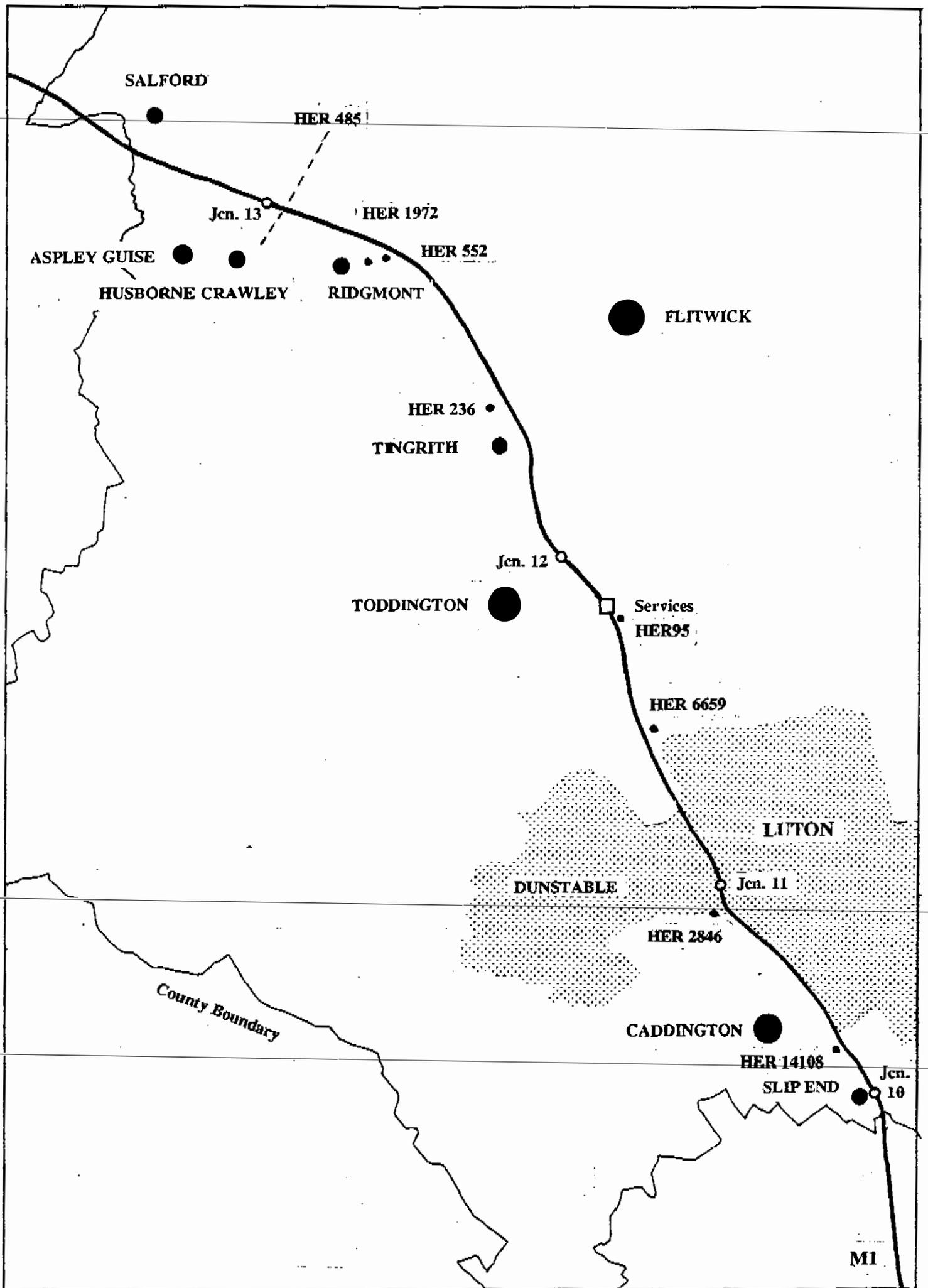


Figure 2: Location of Roman sites known from Historic Environment Record

The Saxon Period (5th century AD - 11th century AD)

The route of the M1 cuts across the natural grain of the County which in terms of geology, soils and topography chiefly trends from south west to north east. The influences on and the resulting development of the historic landscape in the vicinity of the line followed by the M1 through Bedfordshire varied according to the different geological and topographic constraints, a constant theme of this report. This in the historic period was separate from other influences resulting from differing tenurial histories and differing seigniorial approaches to land management which came to bear at the parish or estate level. However although these variations in landscape development were apparent in historic times, particularly before the 19th century, they are less evident in present day landuse.

The withdrawal of Rome from Britain in the early years of the 5th century AD saw the beginning of a period of change. Gradual encroachment by settlers from northern Germany and southern Scandinavia; Angles Saxons and Jutes characterised the period. Little is known in detail about the landscape and settlement in the area concerned before the time of Domesday. However, there is evidence for occupation, agriculture and the presence of woodland of Anglo-Saxon date throughout the area. In addition there are many estate boundaries, some to become parish boundaries later, already long established by the 10th century. One such boundary is described in detail in a charter of AD 969, dealing with the transfer of an estate at Aspley (Guise) which then included Hulcote and Aspley Guise which are therefore ancient and probably botanically rich. They are now cut by the M1 in two places (F18 & F20).

Much of our evidence for the Anglo-Saxon period comes from burials: in this respect the high ground at and near Toddington would appear to have been particularly significant, for several cemeteries have been discovered there, unfortunately mostly reported on by antiquaries during the later 19th century. By the 7th century up to 20% of burials are found to lie on parish boundaries, whilst as high as 80% are within 500 yards (Bilikowski 1980). This has serious implications as the M1, although passing through 14 parishes, tends to follow parish boundaries.

Following regeneration after the Roman period, woodland cover was more considerable during the middle Saxon period than for at least a 1000 years previously and since.

The medieval landscape (11th century AD - 15th century AD)

Extensive woodland clearance for agriculture had already occurred by Domesday, but clearance continued towards edges of most parishes along the line of the M1 during the 11th to 13th centuries as the population and demand for arable increased. Most of our surviving ancient woodland areas had reached their present size and shape by the 13th century and are mostly found in parish perimeter locations, as at Hulcote (F6), Salford and Flitwick Woods (F79).

Much woodland clearance for cultivation or *assarting* was carried out communally to extend the area of common field along the line of the M1 throughout the medieval period particularly in the more lower lying or level or gently sloping areas. However in a few places, especially where the land was more steeply undulating, and towards parish edges, assarting was sometimes carried out by individual farmers who enclosed land to farm for themselves alone. This resulted in areas of small, hedged irregular closes, often adjoining the more open common fields. Amongst the closes one or more isolated farmsteads were usually established, sometimes moated as was fashionable during the 12th and 13th centuries. Such assarting was typical of parts of the boulder clay lands of the West Bedfordshire Ridge, including that section in the northern parts of Hulcote and Ridgmont parishes and in the adjoining parish of Cranfield which overlooks the M1 to the south.

Those parts of Hulcote and Salford, Aspley Guise and Husborne Crawley parishes, and that part of Ridgmont parish north of the village through which the M1 passes today, are all low lying and criss-crossed by streams part of the south western end of the Marston Vale. Throughout the medieval period these were all areas of extensive common fields, chiefly arable furlongs farmed communally, but also common lot meadows adjoining the streams in many places. There was a lack of woodland by the middle of the medieval period. Although this would have been a fairly open landscape, occasional hedgerows would have been present, and the divisions between the furlongs, strips and meadow lots would have been marked by stakes, stones or other means. However, little trace of this survives today following enclosure by Parliamentary act in the later 18th and early 19th centuries, and the creation of new rectangular and straight hedged fields. Even the earthwork remains of medieval arable in the form of ridge and furrow have been largely destroyed by modern ploughing. Unfortunately the same is true throughout the line followed by the M1 in Bedfordshire.

The presence of significant streams in this area provided power for several watermills which operated in the medieval period and later. There was less reliance on windmills here than further south. The sites of the watermills in Aspley Guise and Husborne Crawley are some way to the south of the M1 but those at Salford and particularly Hulcote, which have minor settlements attached to them, lie very close to the motorway though are unlikely to be directly affected by it.

Medieval settlement in this area chiefly consisted of a few small nucleated villages, on the higher ground in the cases of Aspley Guise and Husborne Crawley, with very few isolated farms or hamlets until after parliamentary enclosure. Here, as elsewhere along the line of the M1 north of the Chilterns escarpment, whole or partial desertion of medieval settlement has occurred: surviving earthworks attest to Salford's shrinkage whilst traces of the village of Hulcote have almost entirely disappeared apart from the church and some fragments of unploughed earthworks.

Another almost totally abandoned medieval settlement which survives as earthworks is that just to the west of the M1 at Segenhoe south of Ridgmont village, its later replacement. However, this is on the higher ground of the Greensand Ridge which the M1 passes over in Steppingley, Flitwick, Eversholt, Westoning and Tingrith parishes. The settlement desertion at Segenhoe, including the moated site, may have been due to crop failures resulting from soil exhaustion during the later 13th or early 14th centuries. Such problems and subsequent abandonment of land are well documented at a number of places on the greensand in Bedfordshire. Such sandy soils were then only of marginal value for agricultural purposes and in many places further north east were turned over to extensive rabbit warrens or areas were given away to monastic establishments. In Ridgmont and Steppingley parts of these marginal lands were turned into extensive medieval deer parks - Beckerings Park, through the remains of which the M1 now passes (F68 & 69), and Steppingley Park to the east of the M1. Both had the characteristic oval shape which is now largely lost in the modern landscape, and both were subdivided into many closes and turned over to agriculture towards the end of the medieval period. Some late medieval boundaries may survive at Beckerings Park. There was another smaller and less significant deer park, Brogborough Park, in the northern part of Ridgmont parish off the greensand.

Despite the soils, common field agriculture was still a major feature of the medieval landscape on the greensand in the north of Steppingley parish and eastern two thirds of Flitwick parish, possibly areas of better soils. The sandier soils were located in the south of Steppingley parish and west of Flitwick parish where the M1 follows the stream marking the parish boundary and passes through former meadow land (F76 & F80). These most marginal lands were utilised in the later 18th and early 19th centuries to create extensive plantations. Such plantations occur frequently on many parts of the Greensand Ridge; many were established by the Bedford Estate. To the east in Flitwick Wood is a surviving piece of medieval woodland adjoining the parish boundary with Steppingley.

Medieval settlement in Ridgmont and Steppingley was largely nucleated with little dispersal apart from the Park Lodges. However, to a certain degree in Flitwick, and more so in the other parishes on the greensand in the vicinity of the M1, there was a far greater dispersal of settlement. In Flitwick there were a few isolated farms, such as Ruxox, and three ends including East End with its watermill. However, the parish which stands out in this report is Eversholt. Settlement here was very dispersed with many scattered farms and ends linked by a complex network of winding tracks and lanes set amidst many fragmented common fields and pockets of closes.

The impression given is that a substantial proportion of an Anglo-Saxon landscape may have survived into the medieval period with some parts of this ancient landscape remaining even now.

The M1 only passes through the north eastern corner of Eversholt parish where the last significant area of ancient woodland in the parish stood in the early medieval period. However, assarting soon resulted in an area of small closes and a moated farmstead at Wakes End, and possibly the now deserted settlement at Hunts End Green. Some ancient hedgerows survive now whilst some fragments of ancient woodland also remain, as at Birchall's Wood and Briar Stockings. although Wakes End (opposite F181) and Kingshoe Wood (F83) are now mainly plantations.

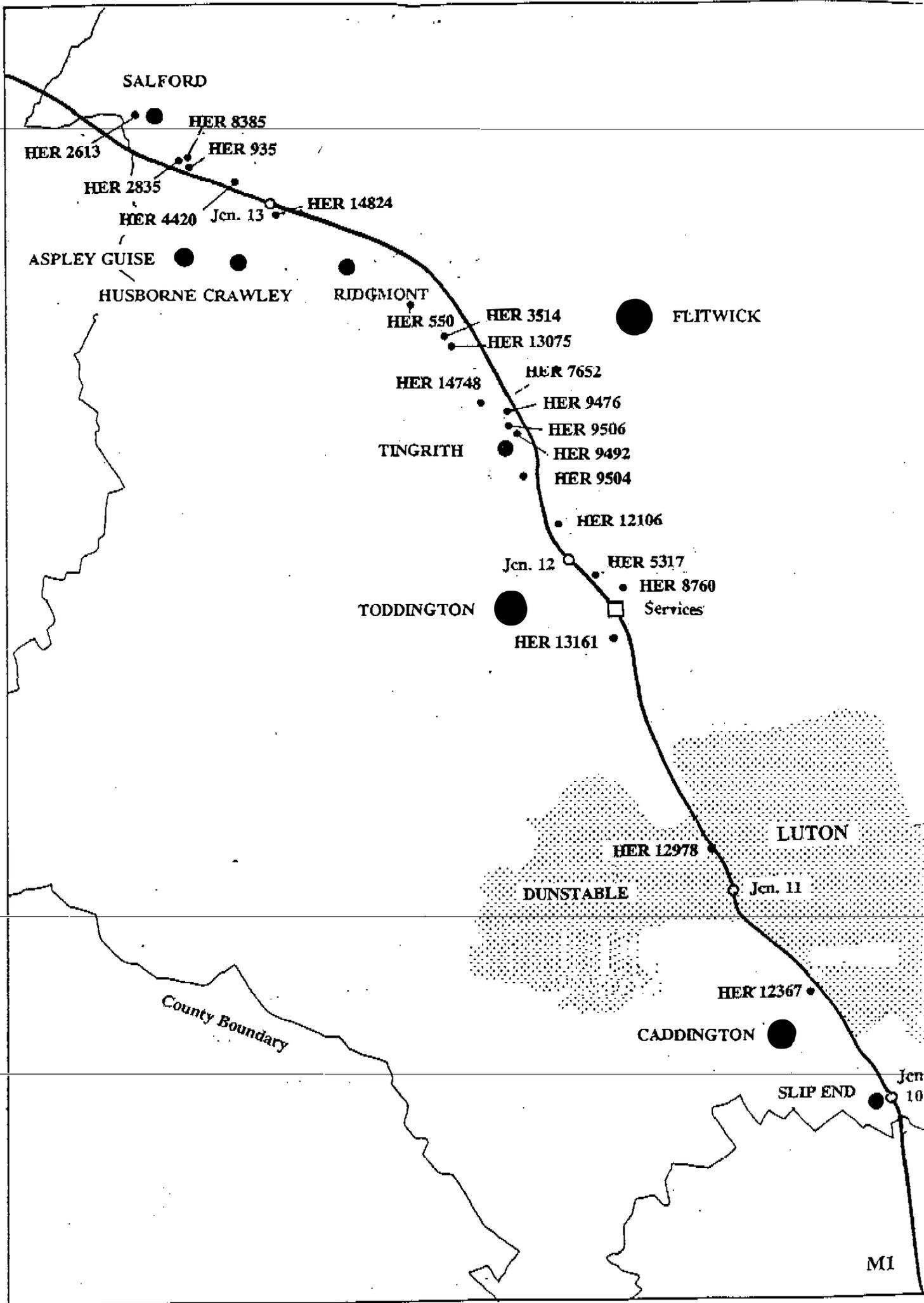


Figure 3: Location of Medieval sites known from Historic Environment Record

Medieval assarting also characterises the landscape in the western part of Westoning parish which the M1 clips. Again in a typical parish perimeter location there were ancient closes, a moat associated with the settlement of Westoning Woodend and the settlement of Harlington Woodend, now shrunken. A similar, probably assarted, landscape was also to be found in the north eastern part of Toddington parish to the north east of Long Lane (F97). The major settlement in Westoning lay in the east together with its common fields intermixed with some other areas of ancient closes as at Samshill, and with some dispersal of settlement.

Conversely to the west settlement in Tingrith was largely in a single village. Here the common fields were not enclosed by parliamentary Act but by a piecemeal process. These fields lay chiefly to the south and west of the villages with the more ancient closes coinciding with the M1 in the east of the parish. Little of the woodlands present in the medieval period survives now.

South of Tingrith and Westoning, and therefore beyond the Greensand Ridge, is the gault clay vale at the foot of the first chalk escarpment. In the south eastern part of Toddington parish, the Chalton area and the far west of Sundon parish, through which the M1 passes, are the various headwaters of the river Flitt. Here the medieval landscape was rather less varied than that to the north. With little evidence for marginal land usage and for assarting leading to the creation of closes. Once again, a common field landscape of arable furlongs and much meadow predominated though to the east of the main settlement at Toddington. There was a large triangular shaped deer park (later subdivided into closes) now traversed by the M1 (F113, 114, 162, 163, 165, 166) which also passes very close to the watermill at Mill Farm which was operating in the medieval period. On the higher ground in the west of the parish there was much piecemeal enclosure of the common fields and establishment of isolated farmsteads from the later medieval period onwards. Most of the remaining settlement in the parish was confined to nucleated settlements at Toddington, Fancott and Chalton.

There was a lack of medieval dispersed settlement in Sundon on the higher chalk lands of Sundon to the east where the two main settlements of Upper and Lower Sundon, both later shrunken, were surrounded by common field lands. Very little of the medieval landscape survives in Sundon apart from the ancient Sundon Wood and another similar wood to its north east. Little woodland also survived the early medieval period in Toddington.

Above the first chalk escarpment, the open common field landscape was even more predominant during the medieval period in Houghton Regis parish and in the vicinity of Legrave and Limbury in Luton parish, with very few closes and little woodland. Settlement was confined to a few nuclei rather than dispersed.

However, south of the second chalk escarpment just to the south of junction 11, the character of the medieval landscape changes. Here the M1 passes through the eastern edge of Caddington parish and the western edge of part of Luton parish,

which in the medieval period developed some of the characteristics of the true Chilterns landscape, with its mix of small scattered ancient woodland, small and numerous fragmented common fields and pockets of closes. A feature typical of medieval agriculture in this area are strip lynchets. These were cultivation terraces cut into the steeper chalk slopes and incorporated into the common fields in order to extend the area of arable during a period of great land hunger in the early medieval period. Some lynchets remained in arable cultivation into the later 19th century but have since been abandoned. One group of lynchets at Chaul End is likely to be directly affected by the M1 widening proposals (F102). The field boundary along F149, 148, 150 is relatively ancient of interest as the land is considerably higher on one side. In this area settlement was also considerably more dispersed, consisting chiefly of many hamlets, often featuring greens, and isolated farmsteads. Here as was also the case right from south of Sundon there is less evidence for settlement desertion during or after medieval times than further north. The common fields underwent considerable piecemeal enclosure from the later medieval period onwards. Further south, close to junction 10, Stockwood Park and Luton Hoo Park were both post medieval creations.

3 M1 WIDENING: THE SURVEY RECOMMENDATIONS

Three factors relating to the construction of the M1 have resulted in little being known in detail about the archaeological interest in the 50m immediately adjacent to the motorway. These factors are:

- 1) the construction of the M1 without the benefit of an archaeological impact assessment
- 2) the lack of any fieldwork before or during its construction
- 3) the nature of the road leading to little development close to it which would have brought archaeology to light

This means that our knowledge of archaeology to date has relied on chance or antiquarian finds alone.

The methodology of the preliminary walkover survey has been outlined above and the results gathered in the Gazetteer. The survey has afforded the opportunity to examine the route through Desktop Study and Walkover. The Desktop Study established some initial areas of interest. This was followed up by the preliminary examination and cataloguing of 186 areas of land which has further identified zones where there is the likelihood of archaeological survival.

This approach has enabled the BCCAS to give a preliminary statement of results and recommendations for further work as outlined in (1) above.

This section deals specifically with two of the objectives:

- **the extent of archaeology**
- **the potential for new sites**

Given that the survey is a tiered programme, of which this is only a part, the recommendations are restricted to Stage 3a **Fieldwalking** and Stage 3b **Geophysical Survey**. It must be born in mind that further sites not directly on the line of the chosen route may have their settings affected by the works. These sites are listed below in section 4

Recommendations for further assessment is divided into four groups of site defined by the level of information now available. The criteria for further action is limited by present landuse and the timetable of the widening scheme. The process of selection was aided by the use of comparative material and knowledge of the soil and drift geological background. It should be noted that, because of the tight schedule demanded by the M1 project programme, the survey was used as the basis

for the estimates for the Stage 3a Fieldwalking whilst still in its early stages. These formed the basis for agreement with the DTp (DTP0900/208/40/BRE/9341)

KEY TO TABLES

F	Fieldwalking
G	Geophysical survey
Env	The widening will directly affect the site due to the proximity of road
Sec 4	Where a site falls into two categories action may be recommended under only one heading
WB	Watching Brief during construction
GHS	The Garden History Society will advise on aspects of the impact the scheme will have on historic gardens
NCC	Refer to the Nature Conservancy Council
HBMC	Refer to the Historic Buildings & Monuments Commission
BCC	Refer to Bedfordshire County Council Conservation section
N/A	No further action (In some cases no action is suggested, for instance in the case of chance finds, or discoveries due to railway, road or house building).

1 Sites identified which are either directly on the route of the motorway or affected by bridge works.

Table 3 Recommendations for Further Work

Survey No	HER Ref	Site description	Action
2, 17	14837	Cropmark site of unknown date	F
8		Western part of this field yielded slight evidence of medieval activity	G
18 & 19	935	Dismantled corn mill. Mapped 1600 & 1845.	G
44, 21	4420	Possible moated site	F
57	14824	Fieldwalking has revealed medieval pottery	G
64 & 68	552	Possible Roman site evident from cropmark, the name of 68 <i>Blackberry Leys</i> , which is now part of 64, could indicate a settlement	F
180	1972	Romano-British quern found at Segenhoe manor	G
180	7016	Segenhoe Manor landscaped grounds early 19th century	Sec 4
72	9073	Cropmark of indeterminate date	F
82	3514	Medieval settlement	G
83	13075	Kingshoe Wood listed as Ancient Woodland in Nature Conservancy Council Inventory 2/1984	Sec 4
90	7652	Track shown east of Home Farm across brook	N/A
100	12106	Nuppings Green & Long Lane prior to enclosure	F
Adjacent 114 & 185	5317	Old Park Farm house and barns, Grade II listed, 1749, altered 1851. Sited within deer park	
168/115	95	Mound or knoll known as Foxburrow, excavated in course of drainage works in 1874. large quantities of Roman pot, animal bone and charred wood and stones found. Presence of kiln furniture is thought to indicate a pottery site. Toddington service station now lies directly above it	F
Adjacent 116	13161	Hipsey Spinney, listed as ancient woodland in Nature Conservancy Council Inventory 1984	Sec 4
131 132 133 134		Fieldwalking has recovered material from the Neolithic to the Iron Age	F
138	12978	Rectangular water filled moat, now overlain by embanked stretch of M1	WB
	2846	2nd century Roman pit in Bradley Road Luton	WB
148	12367	Close named Castle Croft and small piece of woodland to NE adjoining named as Castle Crop Spring. M1 now cuts right through (CRO AT and MAT 30/1 (1842)	F
145/6/7 & 148		Neolithic and Bronze Age flint and Roman pottery recovered from these four areas (Manshead Society)	F

Survey No	HER Ref	Site description	Action
147	14740	Bronze Age spearhead found	F
149		Neolithic and Bronze Age flint and Roman pottery recovered from these areas	G & F
150			
152			
155	14108	Linear cropmarks apparent from Hunting Surveys APs 12/9275-6 June 1981. Enclosure map 1798 for Caddington shows linear feature to be ploughed out roadway and field boundaries. In addition Roman and Medieval pottery found	F
186		Material from Neolithic to Bronze Age as well as sherds of Medieval pottery	G & F

2 Areas which from their geography indicate the possibility of archaeological survival.

Table 4 Recommendations for Further Work

Survey No	HER Ref	Description	Action
1		Proximity to cropmark in F2 indicates the need for further work in this open field	F
3		Open field with slight ridge of old field boundary	F
4		Irregular earthworks	F
5		Location indicates need for further survey	F
12, 13, 14		Irregular earthworks	F
22		Gently sloping south face location suggests need for further work	G & F
29, 30, 43		Fields on calcareous gley soils with slight earthworks	F
55 (56)		Large field with possible medieval site	F
158		17th & 18th century material suggests post medieval site	F
59		Hill wash suggests buried archaeology	G & F
61, 62, 63, 64 65		The minor earthworks in F60 and the proximity of this block of land to the cropmark west of Ridgmont opposite F64 and the discovery of a Roman quern in F180 (HER 1972) indicate further work is necessary	F
69		South facing hill slope and proximity to cropmark site HER 9073 in F72 suggests possibility of settlement	F

Survey No	HER Ref	Description	Action
73		Hill crest site and proximity to Cropmark HER 9073 in F72 may indicate settlement potential	F
75, 181		Hill wash suggests possibility of buried archaeology	G
76		Hill wash and colluvium possibly indicate buried archaeology	G
84		Victorian Park land. Relatively modern woodland may obscure archaeology	G
85 & 86		Field obscured by woodland, may be obscuring archaeology	G
90		Proximity to river could indicate archaeology masked by alluvium	G
93, 95		South facing slope with light brown earth soils of Cottenham series indicates area of potential settlement	F & G
97, 98		Remnant medieval close boundaries and location may indicate need for further study	F
100, 101, 106		South facing slope on calcareous gley soils suggests potential settlement site	F
105		Knoll in area of Toddington, possible settlement location	F
107		Ridge and furrow suggest possibility of masked archaeology	G
110		Minor earthworks	G
116		Proximity to area of known Roman site indicates need for further evaluation	G
117		Surface flint and possible ploughed out ridge and furrow	F
120, 121		Possible earthworks and high flint content of soil indicates need for further evaluation	F
128		Proximity of field to site of Roman well (HER 6659) suggests need for further evaluation	G
151		Site on brown earth soils of Batcombe series over gravels indicates possible settlement area	G
157		Archaeological finds in adjacent fields suggest possibility of archaeology here	G
161		Flat open field on gleyed brown earth soils of Batcombe series, suggests possible settlement location	F
113, 162		Open field close to river with minor earthworks	G
163		Typical settlement location of Iron Age, a slight knoll above a water course	G
165		Flat open site, close to Harlington, in area of Roman/Saxon settlement	G

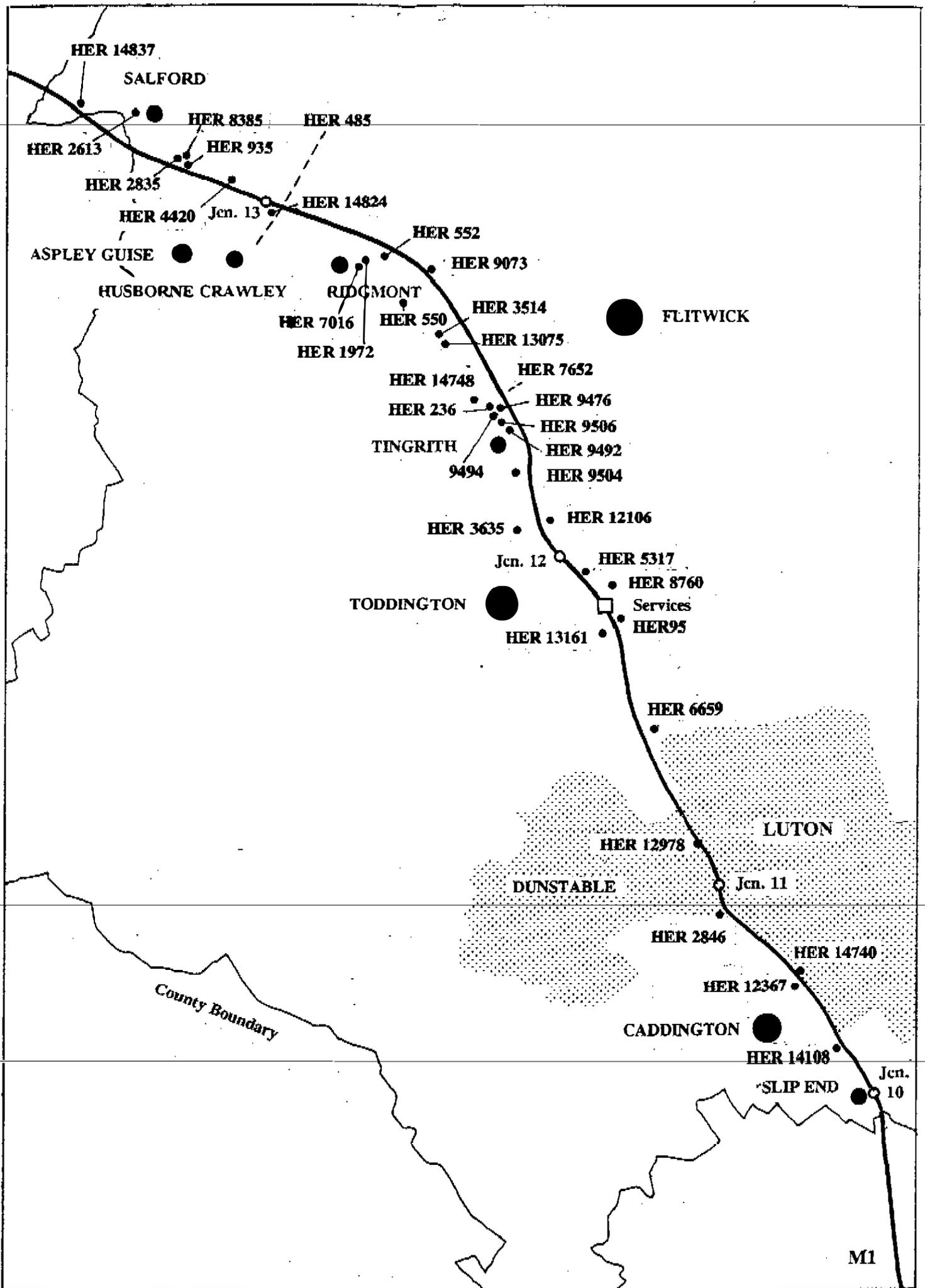


Figure 4: Location of all sites known from Historic Environment Record

3 The following areas are of interest because either place name or historical association suggests the presence of archaeology.

Table 5 Recommendations for Further Work

Survey No	HER Ref	Site description	Action
23		Place name <i>Copperton Hill</i> suggests metalworking here	F
112	1142	Possible earthworks adjacent to mill	G
160		Name of field <i>Cold Harbour Fields</i> often associated with settlement	G
182		This field is opposite the known site of a post medieval settlement site (HER 7722). It's name in 1724 <i>Dixwells Wood</i> may indicate the whereabouts of Dixwells Manor	G
54		Field name <i>Stratmas Hedge Furlong</i> often indicates the site of possible Roman activity	G
87		Field name <i>Stratford</i> suggests a Roman road	G

4 The following sites have been noted for their proximity to the route of the motorway and though not directly affected their location will suffer as a result of the motorway widening.

Table 6 Recommendations for Further Action

Survey No	HER No	Description	Action
	550	Enclosures referred to as Upper Smiths and Smith's Wood (CRO; MA 15), fields date from before Enclosure Act, mentioned in the Court Rolls for Bevins Manor (CRO: X18/2) They may be the result of early enclosure as fields immediately to the north are recorded as enclosed by 1593 (CRO: CRT 100/16; LR 2/208, 40 Eliz 1.; LR 2/195; Reg Eliz). This is also the site of a cropmark complex	Env
	236	Hoard of c2000 coins in pottery vessel found in 1961. Coins in mint condition, buried c AD 335-337. Marked by diamond shaped ironstone. Burnt area and cooking pot found 1 metre away.	N/A
	294	Building marked on Award Map as Pest House (CRO: MA 15)	N/A
	1194	Rectangular earthwork with pond in SW corner of enclosure. Surrounded by trees called Vicar's Close. Surrounding field names: Vicarage Meadows suggests old vicarage site.	N/A
	1336	Roads changed at Steppingley	N/A

Survey No	HER No	Description	Action
	2613	Watermill - there is a history of milling on this site, although present mill built in 1911. Salford Mill is mentioned in Domesday	Env
	2835	Small brick mill associated with windmill now converted into house	Env
	8385	Earthworks in vicinity of Hulcote Mill	N/A
180	7016	Segenhoe Manor landscaped grounds early 19th century	GHS
	9494	Fishponds formed post 1800, ornamental comprise two ponds, east pond is possibly deliberately shaped to symbolise a fish/whale/shark. Ponds had associated bridges, boathouse and waterfall.	GHS
83	13075	Kingshoe Wood listed as Ancient Woodland in Nature Conservancy Council Inventory 2/1984	NCC
90	7652	Track shown east of Home Farm across brook	N/A
	14748	Field system associated with Home Farm	Env
	9476	Well	N/A
	9492	Disused and degraded roads in Tingrith.	N/A
	9506	House site east of Manor Farm	N/A
181	9504	Dixwells Wood - former woodland no longer extant, except perhaps some remnants in north (Park Mead?)	N/A
	3635	Oval mound mentioned in VCH III 1912 p439 "another mound of similar character (to Onger Hill), though rather more irregular in shape, in a field north of the village"	Env
Adjacent 114 & 185	5317	Old Park Farm house and barns, Grade II listed, 1749, altered 1851. Sited within deer park	HBMC & BCC
	8760	Deer park first surviving reference in 1333, still shown up to 1610 on Speed's Map of Bedfordshire, but not on Jeffrey's Map of 1765	Env
Adjacent 116	13161	Hipsey Spinney, listed as ancient woodland in Nature Conservancy Council Inventory 1984	NCC
138	12978	Rectangular water filled moat, now overlain by embanked stretch of M1	WB
127	6659	Roman pottery found at Chalton during construction of Midland Railway 1865, when the railway was widened in 1890's a Roman well, 12m deep was revealed containing pot and animal bone.	WB

In all 53 fields were identified as available for fieldwalking along the route and the methodology outlined in the *Brief for Stage 3 Assessment of the archaeological implications of widening of the M1 between junctions 10-15. Part A Fieldwalking* submitted to Acer in October 1992.

4 SUMMARY OF SURVEY RESULTS

The survey took place over two months during October, November and December 1992. In all 186 land parcels were examined. They were photographed in colour and monochrome, notes were made on a standard form (specified on p9 above) and the notes were collated with information drawn from aerial photographs, the Historic Environment Record, the County Records office. To this was added geological information from a variety of sources including borehole logs held by ACER Ltd.

The report discusses in detail the nature of the archaeological and historic landscape, drawing attention where possible to patterns that help predict areas of archaeological survival (see below **Topography & The Archaeological and Historic Environment**).

The information gathered during the survey has been condensed to form the **Gazetteer** and analysed to produce **Recommendations** for the Stage 3a Fieldwalking stage of the archaeological assessment. In some cases it was clear that geophysical survey would aid further evaluation, and this has been noted.

The specification for geophysical survey is currently being considered by ACER in consultation with the Historic Buildings and Monuments Commission (HBMC) and Buckingham County Archaeologist as co-ordinator of this survey in consultation with Bedfordshire and Northampton Archaeology Services. Once the specification has been produced the results of this Stage 1 & 2 Preliminary Survey and the fieldwalking can be used to target the geophysical prospection in detail.

The short timetable of the M1 widening project has meant that the present landuse and availability of areas for fieldwalking has heavily influenced the following recommendations. This does not apply to detailed geophysical survey which is recommended in areas that are available for fieldwalking and in other areas that were unavailable for that purpose, such as pasture, urban recreation grounds or set-aside land.

Summary of recommendations

Table 7

Proposed action in Stage 3a Fieldwalking

Survey No	Action	Survey No	Action
1	F	97	F
2	F	98	F
3	F	99	F
4	F	100	F
5	F	101	F
12	F	106	F
13	F	115 (168)	F
14	F	116	F
17	F	117 (118)	F
21	F	120	F
22	F	121	F
23	F	128	F
29	F	131	F
30	F	132	F
43	F	133	F
55 & 56	F	134	F
59	F & G	146	F
61	F	148	F
62	F	149	F
63	F	151	F
64	F	152	F
65	F	155	F
69	F	158	F
72	F	160	F
73	F	161	F
93	F	186	F
95	F		

Key:

Fieldwalking F

Geophysical Survey G

Those sites not listed are not suitable for either fieldwalking or geophysical survey

Table 8

Proposed action in Phase 3b Geophysical Sites recommended for *further* detailed geophysical survey.

Survey No	Action	Survey No	Action
8	G	110	G
18	G	112	G
19	G	128	G
22	G	149	G
54	G	150	G
59	G	151	G
57	G	152	G
72	G	157	G
76	G	160	G
84	G	162	G
86	G	163	G
87	G	165	G
90	G	180	G
93	G	182	G
95	G	186	G
107	G		

Key:

Fieldwalking F

Geophysical Survey G