A417 Vol.1

The A417 M5 to A40 (Elmbridge Court)

Archaeological Survey Stage II

Assessment Report

Prepared for
the Department of Transport

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1 INTRODUCTION

1.1 General

1.1.1 This report sets out the detailed results of a Stage II archaeological assessment undertaken in October 1993 on behalf of the Department of Transport to provide information for inclusion in an Environmental Statement concerning the impact of the proposed roadscheme on the adjacent landscape.

1.1.2 A Stage I assessment of the proposed road corridor (with the exception of an additional area in the north east of the road corridor, subsequently included within the Stage II assessment) was prepared by Gloucestershire County Council in 1990. The Stage I report formed the basis for the brief for the Stage II archaeological assessment, while the results of the Stage I assessment are combined with those of the present assessment throughout this report.

1.2 Objectives

1.2.1 The principal objective of the Stage II assessment was to obtain sufficient field data in order to establish the presence/absence, character, period, extent and condition of any archaeological sites or material within the proposed road corridor.

1.2.2 On the basis of these records recommendations can then be formulated in respect of the management of the archaeological resource, and the impact of the proposed roadscheme on that resource may be assessed.

1.2.3 The specifications for the Stage II assessment were compiled with reference to the recommendations of the Stage I report, and developed into a method statement following liaison with the County Archaeologist. Details of the strategy employed and its scope are summarised in Section 3 of this report.

1.3 Previous Archaeological Work

1.3.1 There is no record of any archaeological fieldwork ever having been undertaken within the proposed road corridor prior to the Stage I assessment. The past agricultural regime within this part of Gloucester's Green Belt, combined with a lack of large-scale development generally has given little scope for the definition or chance discovery of archaeological sites. In contrast, excavations and observations undertaken primarily during the development of the suburb of Barnwood to the west of the proposed road corridor have provided a detailed picture of the prehistoric and Roman periods in particular in the surrounding area. However, these findings will be discussed in more detail in Section 2.4 of this report.

1.3.2 The Stage I assessment report prepared by Gloucestershire County Council provided specific archaeological research targeted on the road corridor. It consisted of a 'desk-top' study; primarily based on the Gloucestershire County Sites and Monuments Record (GSMR), published historical material, and aerial photographs - both oblique and vertical - held by the Royal Commission on Historic Monuments (RCHM), and the County Council. These documentary sources were also supplemented by initial, non-intensive field survey. A total of 13 new entries were made to the existing SMR record as a result of the Stage I assessment.

1.4 Report Format

1.4.1 This report summaries the Stage II archaeological field assessment of the proposed route for the A417 Elmbridge Court improvement. The report is structured on a site specific basis, subject to the range of investigative methodologies employed in each case. In addition to a summary of techniques (Section 3) and results (Sections 4 and 5), the effectiveness of each technique is assessed for each site. A more general discussion of the archaeological results is provided in Section 6, together with an assessment of the relative importance of each identified site in local or national contexts.

1.4.2 The labelling system used to identify the archaeological sites, trenches and geophysical survey areas is separate from, but cross-referenced to, the Gloucestershire Sites and Monuments Record, as used in the Stage I assessment.

2 THE PREFERRED ROUTE AND ITS CONTEXT

2.1 The Route (fig.1)

2.1.1 The line of the proposed improvement to the A417 Elmbridge Court section extends south from the Elmbridge Court Roundabout and approaches, to a road bridge over the A417 Barnwood Bypass section which leads to Zoons Court. It is situated in a section of Greenbelt designated land on the eastern limits of the city of Gloucester. The section assessed in this report is just over 3km long. The western boundary of the survey area is defined by the limits of the A417 dual-carriageway south of the Elmbridge Court, with a small area north of the roundabout bounded by the A40 to Ross. The width of the survey area varies greatly, but generally extends between 150m and 350m east of the present roads, the variation in width accommodating various design options for new junctions. An exception is the area beside the A40 Golden Valley approach to Elmbridge Court from the M5 which extends c.1.1km east of the roundabout. The Stage II assessment basically covered the same land unit as the Stage I report, with the addition of two further fields in the north east corner of the survey area.

2.2 Topography and Geology

2.2.1 The survey corridor is dominated by the bulk of Churchdown Hill to the east. The land within the survey area is generally low-lying, sloping gently down from a 'high' point of around 40m AOD south west of a knoll around Zoons Court to between 15m and 20m AOD in the vicinity of Elmbridge Court to the north. Above the 50m contour, which roughly coincides with a river terrace bank around the western side of Churchdown Hill, the character of the landscape changes

markedly, along the upper reaches of the hillside mature hedgerows enclosing small pasture fields possibly reflect an earlier medieval pattern.

2.2.2 Geological and topographical conditions provide a context for the cultural development of the landscape. The land comprising the survey area is situated within the Severn Vale, the underlying geology mainly consisting of beds of bluey-grey Lower Lias clays (Ordnance Survey Geological Map Sheet 234, Gloucester). The Horsbere Brook, which runs through parts of the western side of the survey area into the River Severn, is bounded by spreads of alluvial deposits, including sands and gravels overlying and in places cutting the Lower Lias Clays. In turn, the sands and gravels are overlain by alluvial silty clays which vary in depth over the survey area. Evidence from the trial pitting ground works monitored throughout the Stage II assessment appears to indicate that in the southern section of the survey area the path of the Horsbere Brook has migrated considerably over time within the valley bottom (in addition to its recent channelling along and beneath the A417 bypass), the alluvial deposits possibly supplemented by colluvial run-off in the lea of the Churchdown Hill. Whereas in the northern section of the survey area, in general the subsoils are derived from weathering zones of the underlying Lias Clays, and the topsoil is deeper, reflecting prolonged pastoral landuse.

2.3 Soils and Landuse

2.3.1 The characteristic soils are clayey in texture with some calcerous and sandy inclusions, these are generally suitable for cultivation provided that the location is reasonably well drained and depending on the degree of slope. Present landuse can be seen on figure 2. There is a notable predominance of pasture in the lower, northerly part of the survey area, whereas to the south landuse is primarily arable, reflecting the better drainage provided in places by the underlying sands and gravels and the lower slopes of the Churchdown Hill. Only one small area of woodland is represented, the Semi-Natural Ancient Woodland of Pirton Brake, consisting mainly of Oak, with some Osier (the term 'brake' often denotes a thicket), although the banks of the Horsbere Brook also support a wide diversity of tree and hedgerow species.

2.3.2 Present landuse may be compared with information from various historic sources concerning past agricultural regimes. These sources include Enclosure and Tithe maps from the 18th and 19th centuries, and more recent Ordnance Survey cartography, including c.1947 OS/RAF aerial photography which is a good source for survival of ridge-and-furrow before the period of intensive post-war arable farming. In general the agricultural pattern of landuse has changed little in the past 200 years, along with the pattern of fields which were probably established by piecemeal enclosure in the post-medieval period in the valley of the Horsbere Brook. Enclosure may be primarily 18th century in date, as many of the buildings in the isolated farmsteads around Churchdown Hill are of this period (section 2.4.5).

2.3.3 However, there is evidence that the pre-enclosure landscape differed markedly. While the ridge-and-furrow characteristic of medieval farming is mainly observable as low and indistinct earthworks within the survey area today, the known instances of ridge-and-furrow taken from OS/RAF aerial photographs from the 1940s - which probably represents a minimum distribution as post-medieval cultivation would also have destroyed a proportion of surface remains prior to 1940 - indicate that Open Field cultivation extended over a much greater area in the medieval period, utilising land which today is considered at very best marginal to arable (figs 3 and 4).

2.3.4 While there is no direct archaeological evidence concerning landuse prior to the Open Field System it is possible that the scatters of Roman period pottery found during fieldwalking as part of the Stage II assessment might be evidence for manuring of the better drained soils to the south of the survey area in this period rather than evidence of possible settlement.

2.4 Archaeology and the Developed Landscape

2.4.1 The proposed roadline lies within the hinterland of the major Romano-British and medieval urban settlement of Gloucester - a 'hinterland' here being defined as an area surrounding a town where travel to and from its markets could be achieved on foot within a day. The A417 (apart from various modern improvements of which this scheme is the most recent) "is a particularly magnificent example of a Roman road still in use, the alignments well preserved and the *agger* still an imposing embankment 4-5 feet high across open downland" (Margary 1973,134), between Gloucester (GLEVVM) and Cirencester (CORINIVM DOBVNNORVM) known as Ermin Street. Ermin Street was an important artery of the Roman road system in Britain, connecting the western frontiers of the Province with other important centres including Silchester and London.

2.4.2 The approach of Ermin Street to Gloucester can be seen less than 1km southwest of the survey area, now called Hucclecote Road. Margary maintains that the section from Cirencester to Gloucester was a later extension of the Ermin Street, and ran to the original legionary fortress sited at Kingsholm c.1km north of what became the Colonia, and later still the city, centre.

2.4.3 Not surprisingly, existing archaeological evidence in the vicinity of the survey area is heavily weighted towards the Romano-British period, although Bronze Age material was found during excavations in the suburb of Barnwood (Clifford 1964); and south of the survey area as yet undated, but potentially prehistoric, cropmark evidence has been recently identified as part of the archaeological assessment of the Brockworth Bypass section of the A417 improvements (GSMR 11113; 11114; 11115)).

2.4.4 Evidence from the Romano-British period includes a cemetery (Baddeley 1920; Clifford 1930), settlement features predominantly of Romano-British date found during more recent development in Barnwood (Atkin and Garrod 1988; 1989; Rawes 1977), and recently further excavations adjacent to the site of the Hucclecote Roman Villa, all presumably located to take advantage of the access provided by Ermin Street.

2.4.5 The medieval and post-medieval periods are marked by remains of ridge-and-furrow noted above, and a number of small farmstead-type settlements dotted around Churchdown Hill ending in 'Court'. There are 3 'Court-type' sites just outside the survey area these are: (from north to south)

Pirton Court (SO 875 204) a farmstead mainly consisting of 18th and 19th century buildings, although the main house may contain elements of a timber-framed structure particularly noticeable from the rear elevation.
Elmbridge Court (SO 863 196) a moated site now levelled under the housing estate southwest of Elmbridge Court Roundabout, and
Zoons Court (SO 874 188) another primarily 18th century farmstead.

2.4.6 Other 'Court' sites in the vicinity of the survey area include Noake Court, (SO 881 179), Brockworth Court (SO 892 171), and another moated site at Hunt Court (SO 904 177) located to the south of Churchdown Hill; together with Parton Court (SO 886 205) and Brickhampton Court (SO 870 220) to the north of the survey area. The suffix 'Court' was commonly used to denote manor houses in the

Gloucester area, far more so than 'Hall' or 'Hus' (Smith 1965,192), therefore, this distribution may be an indication of the medieval manorial landscape in this part of Gloucester's hinterland.

3 STRATEGY

3.1 Archaeological Assessment

3.1.1 An assessment of the archaeological resource potentially affected by the proposals for the A417 Elmbridge Court Section Improvement has been undertaken in two stages

Stage I consisted of a 'desk-top' study to identify both known archaeological sites and any new sites identified by new research. The strategy involved examination of aerial photographs, the County Sites and Monuments Record, map and documentary sources, combined with some non-intensive fieldwork.

Stage II was devised as a follow up procedure, taking into account the data collected at Stage I and amplifying it by means of more intensive techniques of archaeological prospection focussed upon sites identified in the Stage I assessment, but also encompassing further general evaluation utilising more detailed archaeological sampling techniques throughout the designated road improvement corridor

3.1.2 The parameters for the Stage I assessment are set out in the relevant document and the gazetteer of sites identified is provided below (see Appendix). The overall brief and methodology for the Stage II assessment was compiled with reference to the recommendations in the Stage I report and agreed with the Gloucestershire County Archaeologist

3.1.3 The Stage II assessment combined site specific evaluation with more intensive fieldwork covering the entire survey area, and, in summary, utilised the following techniques:

Landscape survey of the entire survey area
Fieldwalking of all ploughed arable areas (subject to their availability)
Trial pit examination and recording of all available test pits dug by the Groundworks Contractor
Geophysical Prospection of sites GSMR 7605, 8640, 11034, 8733/11039, 11040, 6731 (from north to south)
Trial trenching in areas recommended for evaluation including GSMR 7605, 8640 and 6731 (from north to south) and results obtained through geophysical prospection and fieldwalking.

3.2 Techniques

3.2.1 For an assessment of this nature both intervention and non-interventive techniques are employed, with an emphasis initially upon the latter as a non-destructive approach.

3.2.2 Landscape survey involves walkover field inspection recorded on specifically designed pro-forma record cards. This part of the evaluation was specifically targeted towards surface indications of archaeological potential, a subsidiary objective was to record the nature of the extant historic landscape

3.2.3 Fieldwalking involves the surface collection of portable artefact remains and the record of other potentially significant surface features (soil marks, building debris, etc.).

This technique may indicate the presence of buried archaeological remains, their approximate period, character and potential arrangement through the plotted distribution densities of various categories of material. Although it should be recognised that a number of factors are at play in determining the data provided by the archaeology of the ploughsoil. Manuring and rubbish disposal can produce concentrations of ploughsoil artefacts unrelated to habitation or settlement. Post-depositional factors may also affect the distribution of artefacts within the ploughsoil, information from the test pitting programme provided a valuable insight into these processes over the sampled fields within the survey area.

The collection strategy involved walking each available field in linear transects, each member of the team spaced approximately 2m apart, collecting individual artefacts separately and allocating individual finds spots. This technique is utilised to provide a relatively rapid profile of a field. Any significant concentrations of artefacts can then be followed up in more detail and plotted two-dimensionally using an EDM Total Station. Fieldwalking was carried out in field numbers FN 17, 18, 19, and 20 all south of the railway, but its more extensive application was restricted by the presence of pasture or growing crops elsewhere, and even over parts of FN 17 and 18, a circumstance which unavoidably coincided with the period of the Stage II assessment fieldwork.

3.2.4 The test pitting aspect of the sampling strategy utilised the geotechnical test pitting programme which was running parallel to the archaeological field programme. Approximately 108 trial pits were dug along the proposed road corridor, these were monitored archaeologically and recorded on pro-forma context cards, which form part of the evaluation archive. The sample was randomly distributed in as far as the pit sites were determined by geotechnical considerations. In general the pits were machined by JCB-Excavator to a depth of between 3m and 5m, usually creating a single bucket-width trench measuring c.5m by 1m, although some deeper pits were excavated in c.4m by 4m squares. Provision for further archaeological trial pit excavation was available if appropriate. The recovery of geomorphological data provided evidence of where archaeological sites might be more deeply buried, and put them within the context of the landscape's development. The depths of topsoils provided an indication of the ploughing history of the survey area and therefore provided some indication of the likely condition of any buried archaeological deposits.

3.2.5 Geophysical prospection is a technique employed to detect the presence of buried archaeological features through the measurement of below-ground magnetic or resistance anomalies. In favourable conditions this may reveal patterns of sub-surface features susceptible to a degree of archaeological interpretation, whose presence may not have been detectable by other non-interventionist techniques. Geophysical prospection was carried out in ten areas labelled A-K (there was no Area I) the sampled areas varying in size between squares measuring 40m and 60m (figs.5,6 and 7).

This technique was used to provide information about known discrete sites (such as the possible cropmark GSMR 7605), and also as a means of more general prospection over more extensive archaeological sites, particularly in the pasture fields to the north of the railway line where other techniques, such as fieldwalking could not be applied.

3.2.6 Trial trenching is an interventionist technique employed to assess and define with more precision an archaeological site whose presence is suggested by evidence accumulated by other means. With the assistance of machine excavation to remove the topsoil cover, subsoil transects can then be examined by hand to locate, and where appropriate, sample excavate potential archaeological features or deposits. This process and the records produced combined with other forms of evidence from aerial photography or geophysical prospection for instance, may verify the presence of a site and provide information on its character, date, complexity and state of preservation. A total of 12 trial trenches were cut by JCB using a toothless ditching bucket, generally to a width of slightly under 2m, and usually removing between 0.3 and 0.5m of disturbed topsoil overburden

4 SAMPLING PROGRAMME RESULTS

4.1 Landscape Survey

4.1.1 There were 22 fields or parts of fields recorded within the survey area (fig.8), each field was given its own number (designated FN). Information about the general character of the field was recorded, including its geology, soils, slope and aspect, and land classification. Definition of the field included description of its boundaries, and any relevant surface features

4.1.2 In general the landscape survey confirmed the results of the walkover conducted as part of the Stage I assessment. The only new features identified by the landscape survey are located in the northeast of the survey area, adjacent to Pirton Court and Pirton Brake, in an area the proposed roadscheme should not impinge upon. They comprise as follows:

4.1.3 **FN10** in Pirton Brake, an area of Semi-Natural Ancient Woodland, there is a boundary feature, consisting of a bank and ditch c.2m high surmounted by coppiced osiers which have been tended into a rough fence, and relatively mature oak trees. While no mature oak trees were found in Pirton Brake the feature is likely to date to at least the last century if not earlier

4.1.4 **FN12** is the field to the west of Pirton Court, which also includes a small triangular enclosure just to the east and immediately adjacent to Pirton Court farmyard. The main field contains quite well defined ridge-and-furrow, and in the middle of the field there is an old oak tree, with a girth in excess of 2m, which appears to post-date the ridge-and-furrow.

4.1.5 The ridge-and-furrow of the main field finishes abruptly against the northern boundary of FN12 with the small triangular enclosure. A linear depression, running east-west, c.1m deep and 3m wide, can be observed just inside the modern wire boundary fence between the two fields. This feature is truncated to the north by the modern A40 Golden Valley dual-carriageway. Another smaller, less well defined, depression running north-south abuts the larger linear depression at right angles, and within the 'platform' created by the intersection of the two ditch-like depressions are a series of small bumps and hummocks. Interpretation of these features is difficult, but the larger linear depression may correspond with an old pathway shown on the 1st edition Ordnance Survey map of the later 19th century. Only further work could ascertain the origin and function of the smaller features, although they are suggestive of a demolished building platform.

4.1.6 The contemporary landscape of the survey area may generally be described field by field as follows: FN1-FN4 are low-lying poorly drained rough pasture fields containing a number of modern drainage features probably associated with an old sewage works in the north of FN4.

4.1.7 FN5 and FN6 comprise the larger segments of fields dissected when the A40 Golden Valley dual-carriageway was built, the respective rump sections equating with FN7 and FN9. FN5 and FN6 have been ploughed, but were not available for fieldwalking as the crops had been left to rot in situ. In contrast FN7 and FN9 are both old pasture containing surface remains of ridge-and-furrow, indicating that FN5 and FN6 had probably only recently been returned to arable cultivation, possibly because of an improvement in drainage caused by the A40 improvement.

4.1.8 FN8 and FN11 slope gently away from Churchdown Hill and like FN5 and FN6 contained rotting crops making fieldwalking impractical. FN 10 and FN12 are described above, while FN13 contains an old orchard which is no longer productive. FN14, and FN15 are both old pasture, each containing surface indications of ridge-and-furrow, FN16 was under pasture, but had been recently ploughed, no surface remains of ridge-and-furrow were discernible.

4.1.9 FN17-FN21 are all ploughed arable fields of generally heavy, but relatively well-drained clays due to the gentle slope from Churchdown Hill to the east down to the Horsbere Brook to the west. A proportion of these fields were suitable for fieldwalking. Finally FN22 was a small enclosure of rough pasture, no surface features were discernible.

4.1.10 None of the new features recorded were of any particular archaeological significance and were all on the very periphery of the survey area. However, although the additional understanding gained as a result of the landscape survey is limited and localised, it should be emphasised that the meagre results are no reflection upon the viability of this particular methodology. Rather, the result confirms a general impression that there is little new archaeology to be discovered within the route corridor, and that the type of landscape is such that the techniques of rapid walkover survey and fieldwalking are perhaps better suited to general archaeological prospection.

4.2 Fieldwalking

4.2.1 The fieldwalking pro-forma records, in which the number and type of artefacts collected are recorded, are included in the evaluation archive. The results from each field are discussed individually below.

4.2.2 FN17

Information obtained from test pits (TP142-TP147, and TP152, TP153 and TP155) revealed that a layer of alluvial claysilt underlies the topsoil to a depth of between 0.9m and 1.5m over most of this field, commonly overlying in turn another alluvial layer of sands and gravels in the valley bottom. The topsoil deposit was characteristically thin for a ploughed field. Conditions were not ideal for finds recovery, the field had been very deeply ploughed and was heavily rutted, in addition weathering had occurred since ploughing. Furthermore, there was a very high level of background interference caused by extensive spreads of modern building debris. The northernmost 25% of the field next to the railway was unavailable for inspection due to an uncleared crop of rotting beans.

4.2.3 The degree of background interference from modern building debris in the part of this field lying north of the trackway clearly distorted the value of any results from this field. Although 4 Roman sherds were recovered just to the north of the trackway near to the area highlighted as being of potential archaeological significance near Gloucestershire SMR 6731, it was subsequently discovered that the northern part of the field had been used as a rubbish tip for construction debris from the building of the nearby Walls factory, and then extensively landscaped in order to return it to cultivation. In contrast, the southern half of the field contained very few artefacts.

4.2.4 FN18

Field FN18 was another very deeply ploughed field with similar recovery problems to FN17, with the exception of an absence of modern building debris. Only the southern half of the field, which is roughly bi-sected by a trackway up to Zoons Court, was fieldwalkable, the northern half being under crop. Only two test pits were dug in this field (TP148 and TP150) these showed that the alluvial clays were less deep on the slope of Churchdown Hill. No artefactural indications of sites were recorded, very few artefacts were recovered and these were primarily post-medieval in date.

4.2.5 FN19

FN19 is a low-lying narrow field on the eastern side of Horsbere Brook. The field boundary separating FN19 from FN17 has been recently removed but the character of the field was sufficiently different to justify the allocation its own enclosure number. While no test pits were dug in this field, evidence from TP158-TP160 dug near the southwest boundary of FN20 with FN19 appears to indicate that at the bottom of Churchdown Hill the alluvial/colluvial build up is significantly thicker than elsewhere, the alluvial subsoils varying in depth between 1.5m and 2.1m. One post-medieval pot sherd was recovered from this small field. This negative evidence may indicate that the field had only recently reverted to arable cultivation, as the setting of FN19 is favourable for pastoral landuse

4.2.6 FN20

Information from test pits excavated in FN20 (TP158-TP164) revealed that there was a significant alluvial deposit in the lower northern half of the field, which tapered off as the gradient of slope increased towards the southern and eastern limits of the field. Conditions for fieldwalking while difficult, given the deep ruts caused by ploughing, were somewhat better, the light being low, and recent heavy rain had cleaned any artefacts in the ploughsoil aiding recovery.

4.2.7 Systematic walking identified two concentrations of artefacts towards the eastern edge of the survey corridor. Artefacts from the northernmost of the two concentrations were primarily post-medieval in date and might be associated with a probable infilled pond identified by a large oval zone of mixed soils, including the characteristic blue clays of the underlying Lower Lias. The second, larger, concentration contained a high proportion of Roman pot-sherds, including black burnished wares, sandy oxidised, and greywares. This area was accurately plotted using the Total Station EDM. It was decided that this second cluster of finds be further tested by excavation of two trial trenches (Section 5.8).

4.3 Trial Pit Examination and Recording

4.3.1 No significant new archaeological sites were recorded as a result of monitoring the sampling programme of the geotechnical crews. The main

information recovered related to the geomorphological development of the landscape, although the negative evidence further confirms the impression that this area has never been intensively utilised by man in any period of history other than for agricultural purposes. No artefacts were recovered from the trial pits, although a palaeoenvironmental sample was taken of a peaty layer (141/06) in TP141, which probably represented a buried former course of the Horsbere Brook.

5 SITE SPECIFIC EVALUATION (Fig.9)

5.1 Introduction

5.1.1 Four sites of potential archaeological significance were specifically recommended for evaluation by the Stage I assessment, in addition a further site was identified by fieldwork carried out in Stage II in FN20, and the potential of a further two areas of pasture identified by the County SMR as containing ridge-and-furrow were evaluated using geophysical prospection. These sites are listed below arranged from north to south of the survey area:

Site I	**Possible cropmark at Innsworth**
Site II	**Areas of possible occupation indicated by field names Stoney Lanes Piece and Stoney Lanes Piece Meadow**
Site III	**Ridge-and-furrow near Elmbridge Court**
Site IV	**Ridge-and-furrow near Elmbridge Court Farm, called Moat Grove**
Site V	**Ridge-and-furrow near railway line**
Site VI	**Area just east of excavated Romano-British settlement in FN17**
Site VII	**Artefact Cluster of Romano-British finds in ploughsoil of FN20**

5.1.2 This section of the report summarises the work undertaken on each of the above sites. The detailed records form part of the evaluation archive. Other areas of archaeological interest identified by the Stage I assessment but not requiring evaluation are summarised in the Appendix.

5.2 Site I; FN;, GSMR 7605; Geo.Area H; Trench H: Possible Cropmark at Innsworth

5.2.1 The Site (fig.10)

A small cropmark which is too faint to allow a coherent plan to be drawn may denote an area of former settlement near the southern boundary of FN1. The cropmark may be very tentatively characterised as an indistinct, but apparently irregular quadrilateral single ditched enclosure, measuring no more than c.40m by 30m.

5.2.2 Objectives

Geophysical survey and trial trenching were to be utilised in order to confirm if the problematic cropmark evidence represented cultural activity or not.

5.2.3 Geophysical Survey (fig.11)

Geophysical survey was undertaken over an area 60m square coinciding with the cropmark position. The data set was dominated by a disturbance from a large ferrous pipe trench to the south while a linear anomaly coincided with a low-bank visible on the ground. No anomalies of archaeological interest were detected by the survey.

5.2.4 Trial Excavation

Subsequent trial excavation consisted of a single 30m long trench cut across the presumed cropmark location. Topsoil was mechanically excavated, to a depth of 0.3m. A light brown clay subsoil horizon presented no difficulties in cleaning or definition, from which it was clear that no archaeological features were present. The low-bank running across the field was found to be large buried modern concrete-clad pipe.

5.2.5 Discussion

Evaluation confirmed that the problematic cropmark evidence did not represent any cultural activity, it is possible that marks on the aerial photograph reflect ground disturbance associated with the digging of the pipe trench through the site.

5.3 Site II; FN2-FN4; GSMR 8640; Geo.Areas D,E,F,G; Trenches D,E,F1,F2,G: Area of Possible Occupation Indicated by Field Names 'Stoney Lanes Piece' and 'Stoney Lanes Piece Meadow'

5.3.1 The Site (fig.12)

The fields referred to by the Tithe Map of c.1840 as 'Stoney Lanes Piece' and 'Stoney Lanes Piece Meadow' cover a large area corresponding to modern fields FN2, FN3 and FN4. All these fields are low-lying rough pasture. While there are a number of irregular surface undulations within these fields, inspection revealed the majority to be post-war features associated with demolished animal pens or sheds.

5.3.2 Objectives

A sample of each field was undertaken using geophysical survey and trial trenching to try to assess whether the field names were indicative of cultural activity.

5.3.3 Geophysical Survey (figs.13,14,15 and 16)

Four areas of the fields FN2, FN3 and FN4 were targeted for geophysical survey. Area D (40m by 60m) was located in the south west corner of FN3 on a slightly raised platform in an area adjacent to the Elmbridge Court roundabout and therefore likely to be affected by the proposed road scheme. Area E (40m by 60m) was located to sample FN2, and also check the area south of the cropmark GSMR 7605 as conditions in this field may have obscured any marking visible from the air. Areas F and G (40m by 60m, and 40m by 40m respectively) were located to test FN 4, both areas were placed to avoid known areas of disturbance within the field

from a disused sewage plant to the north, and from former farm buildings to the south.

In general the results were negative, the data dominated by disturbance from ferrous pipes and other modern ferrous material. No anomalies of archaeological interest were recorded in Areas D and F. Area E recorded several pit and ditch type anomalies, although the response were weak and diffuse, and it was unclear if these responses were archaeological in origin. Area G contained a strong pit-like response in the west of the survey area, although ferrous background interference was very high.

5.3.4 Trial Excavation

A total of five trenches were dug in FN2, FN3 and FN4 as a follow up to the geophysical sampling. A topsoil of around 0.3m depth was cleared by machine in each trench, an underlying clean light brown clay subsoil horizon was hand cleaned in trenches D and E and F2 and revealed no indication of any archaeological features or deposits. Adjacent trial pitting (e:g TP101-TP113) indicated this subsoil to be between 0.7m and 1m in depth from the present groundsurface and of a uniform profile throughout with no apparent evidence of any weathered surfaces. Because of severe weather conditions, and its low-lying position Trench F1 was waterlogged throughout the duration of the evaluation, although no features were apparent immediately after machining. Very few artefacts were recovered in these trenches which may reflect a prolonged meadowland/pasture landuse.

In Trench G the topsoil directly overlay a weathered horizon of Lower Lias clays. A number of poorly defined features were seen to cut the weathered clays, excavation showed these to be either natural features produced by deposition of alluvial sands and gravels into natural undulations in the weathered Lower Lias Clay sub-surface, or the probable product of modern earthmoving, possibly associated with the presence of a World War Two air-defence battery in this area.

5.3.5 Discussion

The results of the field evaluation in this area were negative. No indication consistent with human intervention other than pastoral landuse was found, with the exception of Area G, where some wartime ground disturbance seems to have occurred. It seems probable that the field name evidence of 'Stoney Lanes Piece' and 'Stoney Lanes Piece Meadow was related to a nearby stoney track or roadway rather than to the fields.

5.4 Site III; FN14; GSMR 11034; Geo.Area A: Area of Ridge-and-Furrow North West of Elmbrige Court Farm

5.4.1 The Site

Surface traces of ridge-and-furrow are visible within this pasture field, part of which was used as the plant storage area for the current roadscheme ground investigation crews.

5.4.2 Objectives

The possibility that the medieval ridge-and-furrow masked earlier archaeological deposits was investigated by the use of geophysical survey.

5.4.3 Geophysical Survey and Discussion (fig.17)

Area A measured 40m by 40m, the ridge-and-furrow was detected by the gradiometer and is particularly apparent in the dot density display. Evidence from geotechnical trial pitting in this area (TP134 and TP135) indicated that the topsoil was c.0.3m deep overlying a claysilt alluvial subsoil between 0.25 and 0.5m deep - reflecting the ridge and furrows, which in turn overlies upper horizons of weathered Lower Lias clays. A pipe runs along the eastern limit of the survey area and there were several isolated ferrous responses on the geophysical survey. Two faint pit-like anomalies were detected which were tentatively interpreted as possibly being archaeological. However, it was felt that these did not merit investigation by trial trenching. Given the proximity of the possible pits to the Elmbridge Court roundabout it seemed highly likely that these pits were associated with the construction of the roundabout.

5.5 Site IV; FN14; GSMR 8733 and 11039; Geo.Area B: Ridge-and-Furrow south east of Elmbridge Court Farm, and Field Name 'Moat Grove'

5.5.1 The Site

Another enclosure containing surface indications of ridge-and-furrow situated within an enclosure called 'Moat Grove' on an estate map of 1769. Given the presence of ridge-and-furrow, the possibility that there was a second moated site here adjacent to Elmbridge Court seems remote.

5.5.2 Objectives

Geophysical survey was employed as a means of sampling this area of pasture.

5.5.3 Geophysical Survey and Discussion (fig.18)

Geophysical Area B measured 40m by 60m and was located near to the eastern boundary of the A417 dual-carriageway. Evidence from an adjacent geotechnical trial pit (TP 136) indicated that the topsoil c.0.3m deep overlay an undulating alluvial claysilt deposit similar to TP134 and TP135 to the north. Close to the roadside an irregular but 2m deep pit was identified in the trial pit section, which was clearly a modern 'borrow pit' associated with the construction of the adjacent dual-carriageway. Magnetic disturbance from a telegraph pole and large steel-sheeting-clad barn affected readings in the western part of the survey area, there were also several isolated ferrous responses and a few indistinct pit-like responses. The results of the survey were not felt to merit examination by means of trial trenching, no indication of a second moated enclosure were found.

5.6 Site V; FN15; GSMR 11040; Geo.Area C: Ridge-and-Furrow south of Elmbridge Court Farm

5.6.1 The Site

Another enclosure containing surface indications of ridge-and-furrow, situated in a pasture field south of Elmbridge Court Farm, and north of the railwayline bi-secting the survey area.

5.6.2 Objectives

Geophysical survey was employed as a means of evaluating this area of pasture to test for any archaeological features or deposits sealed by the surface indications of ridge-and-furrow.

5.6.3 Geophysical Survey and Discussion (fig.19)

An area measuring 40m by 60m situated close to the eastern boundary of A417 dual-carriageway was prospected. The data was dominated by a pipe running through the north of the survey area. The ridge-and-furrow was detectable as a northwest/southeast trend. Only one anomaly of possible archaeological interest was found, however, the level of disturbance associated with this anomaly indicates that a modern or natural origin was equally likely. No trial trenching of this feature was deemed to be necessary.

5.7 Site VI; FN 17; GSMR 6731; Geo.Areas J and K; Trenches J1, J2, K1 and K2: Area of Potential Archaeological Interest just east of Excavated Romano-British Settlement

5.7.1 The Site (fig.20)

The site chosen for investigation lies east of an area excavated when the Horsbere Brook was diverted and culverted under the A417 in the 1970s, and is located within FN17. FN17 had been partially ploughed, the field slopes down to the south from the railwayline bi-secting the survey area, and also slopes down from east to west into the Horsbere Brook.

5.7.2 Objectives

The objectives of the Stage II assessment were to investigate by means of both geophysical survey and trial trenching the likelihood of the known site extending further eastwards into the survey area. Geophysical survey was used as a precursor and guide for any subsequent trial trenching.

5.7.3 Geophysical Survey (figs.21 and 22)

Two areas, J and K, were chosen for geophysical prospection. Area J measured 40m by 60m and was located close to the A417, while Area K measured 60m square and was designed to test a small knoll of better drained land just to the east which appeared to have some potential as a settlement location.

The results from both areas were severely distorted by modern pipes running across the field, and no clear indications of archaeological activity were identified. The results from both areas highlighted a number of curious anomalies against the background disturbances and it was decided to target several of the trenches towards elucidating these phenomena.

5.7.4 Trial Excavation

A total of four trenches were cut by machine in FN17. Trench J1, 65m in length, was cut parallel to the A417, gradually rising upslope towards the railwayline to the north. A large disturbed modern deposit of building rubble and waste was sealed by the topsoil over the rest of the trench. Sections dug though the disturbed material indicated that it sealed the underlying claysilt, but had also caused much of this deposit to be scoured away. A similar situation was found in Trenches J2 and K1, sections cut through the disturbed deposit indicating that the knoll overlooking the

A417 was largely composed of building debris up to 1.8m in depth dumped when the Walls Factory to the west of A417 was built. The land was subsequently reinstated and returned to arable cultivation after provision of drainage and levelling with topsoil. Subsequent ploughing had dragged some of the underlying building rubble back up to the surface of the field which was noticed during fieldwalking.

The southern 5m of the trench was cut to double bucket width where a clean but poorly defined claysilt subsoil horizon was defined about 0.5m beneath the ground surface. A few medieval and Roman sherds, together with a cluster of oxidised pebbles, were found during cleaning. However, subsequent excavation showed these to lie within the fill of a modern drainage ditch the edges of which were only identifiable after the pipe had been contacted. Difficulty of feature definition within the alluvial subsoil given the weather conditions prevailing throughout most of the excavation raises questions about the survival of archaeological deposits closer to the road. However, the probability is that any surviving deposits would be severely disturbed and/or truncated by both previous road construction, the excavation of the culvert for the Horsbere Brook and ordinary ploughing

Evidence of widespread ground disturbance was also found in Trench K2 to the south of the track bi-secting the enclosure FN17. Removal of about 0.4m of topsoil in this double-width 30m long trench revealed a mixed deposit of weathered Lower Lias Clays and sands and gravels probably caused by groundworks for the diversion and culverting of the Horsbere Brook.

5.7.5 Discussion

The results from both geophysical survey and trial trenching in enclosure FN17 indicate that any survival of archaeological deposits relating to the known Romano-British settlement excavated to the west of the A417 is likely to be at best patchy and ill-defined because of extensive ground disturbance and problems of feature/deposit recognition.

5.8 Site VII; FN20; Trenches L and M: Artefact Cluster of Romano-British Period in FN20

5.8.1 The Site (fig.23)

A cluster of about 30 Romano-British pot sherds including Black Burnished, sandy oxidised and greywares were recovered from the ploughsoil of an area within enclosure FN20. The cluster was located mid-way down a gentle north facing slope on towards the easternmost boundary of the survey area. The soils on this slightly higher part of FN20 are generally lighter, and the topsoil and underlying alluvial clays thinner than the build up of colluvial deposits downslope towards the valley bottom sampled in the geotechnical test pits TP156-TP160.

5.8.2 Objectives

Excavation of two double-bucket-width 30m long trenches within the cluster was undertaken in order to determine if the presence of artefacts in the ploughsoil related to the location of buried archaeological deposits.

5.8.3 Trial Excavation

Removal of c 0.3m of topsoil in each trench revealed a clean light brown claysilt alluvial subsoil which presented no difficulties in feature definition. However, soil changes related to modern field drainage systems running north-south with the slope of the field, and no features of archaeological origin were found.

A few sherds of mixed periods were found on the interface between the ploughsoil and the alluvial clays, together with several animal bones and a later Roman coin in Trench M (15001) However, these finds may have been deposited by the plough or have travelled downwards through the cultivated soil, rather than being an indication of nearby settlement.

5.8.4 Discussion

Excavation Trenches L and M were unable to resolve the question of the origin of the artefact scatter. There are two possible explanations, firstly, that the artefacts arrived in the field as a result of agricultural practices such as manuring in the Roman period, and thereafter have tended through geomorphological processes and ploughing to cluster in this particular area of the field which used to be adjacent to a former field boundary; alternatively, the cluster may reflect Romano-British settlement located further upslope, from which the artefacts have migrated through the same processes mentioned above. If the latter were the case then the site would probably lie on the very periphery, or even outside, the survey area The former existence of ridge-and-furrow cultivation in this field could also have contributed to the destruction and spread of earlier settlement remains.

6 DISCUSSION AND ASSESSMENT OF THE RELATIVE IMPORTANCE OF EACH IDENTIFIED ARCHAEOLOGICAL SITE

6.1 Summary of Results

6.1.1 The results of the Stage II archaeological assessment given below are summarised and discussed with reference to Section 3 Part 2 of the **Design Manual for Roads and Bridges, Volume 11: Environmental Assessment** published by the Department of Transport in 1993 (hereafter referred to as DMRB 11).

6.1.2 The Stage II assessment has established that in general the survey area examined has a low archaeological potential. Detailed evaluation of the potential archaeological sites identified in the Stage I report together with the artefact scatter discovered during fieldwork in Stage II, has established that the majority of potential sites cannot be correlated with any tangible archaeological remains, including buried deposits, earthworks, or upstanding remains. Sites I,II,III,IV,V, can be ascribed to this category, which at most may be assessed to be of local importance.

6.1.3 Site VI is judged to be on the periphery of the known site GSMR 6731, any archaeological remains in this area may be expected to be so badly damaged that too little now remains to justify their inclusion in a higher grade of site.

6.1.4 Site VII is more problematic given the inconclusive results from the Stage II evaluation, however, it appears that this potential site is located outside the survey area.

6.1.5 The landscape features identified during the Stage II landscape survey near Pirton Court (Sections 4.1.3, 4.1.4, and 4.1.5) are of localised importance and are located on the very periphery of the survey area.

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APPENDIX: GAZETTEER OF SITES IDENTIFIED IN THE STAGE I ASSESSMENT

A.1 Catalogue of sites within the Survey Area

A.1.1 GSMR 7605: SO 8595 2060: pa.Innsworth

Cropmarks visible on aerial photographs of uncertain origin.

A.1.2 GSMR 8640: SO 8620 2047: pa.Churchdown/Innsworth

Fieldnames 'Stoney Lanes Piece' and 'Stoney Lanes Piece Meadows' recorded on the Tithe Map. A possible indicator of occupation debris within the area.

A.1.3 GSMR 8733: SO 8645 1975: pa.Innsworth

Fieldname 'Moat Grove' recorded on an estate map of 1769, probably associated with the moated site at Elmbridge Court. The area contains ridge-and-furrow and the possibility that the area contains a second moated site is remote.

A.1.4 GSMR 11034: SO 8640 1990: pa.Innsworth

Surface traces of ridge-and-furrow visible in June 1990 and October 1993.

A.1.5 GSMR 11035: SO 8644 1999: pa.Innsworth

Mound o.6m high by 8m in diameter, since discounted as a modern dump of soil.

A.1.6 GSMR 11036: SO 8660 1987: pa.Innsworth

Surface traces of ridge-and-furrow.

A.1.7 GSMR 11037 and 11038:
SO 8647 1989/2: pa.Innsworth

Two modern mounds.

A.1.8 GSMR 11039: SO 8655 1970: pa.Innsworth

Surface traces of ridge-and-furrow.

A.1.9 GSmR 11040: SO 8655 1945: pa.Innsworth

Surface traces of ridge-and-furrow.

A.1.10 GSMR 11041: SO 8670 1985: pa.Innsworth

Surface traces of ridge-and-furrow.

A.1.11 GSMR 11095: SO 8725 1822: pa.Hucclecote

Surface traces of ridge-and-furrow.

A.1.12 GSMR 11133: SO 8680 2015: pa.Churchdown

Surface traces of ridge-and-furrow.

A.1.13 GSMR 11134: SO 8720 2025: pa.Churchdown

Surface traces of ridge-and-furrow.

A.1.14 GSMR 11135: SO 8607 2046: pa.Innsworth

Bank c.0.2m high aligned approximately northwest to southeast, the remains of a former field boundary documented prior to the construction of the A417.

A.1.15 GSMR 11136: SO 8670 2025: pa.Churchdown

Surface traces of ridge-and-furrow.

A.2 Catalogue of Sites on the Periphery of the Survey Area

A.2.1 GSMR 4826: SO 8630 1919: Gloucester

Location of a former medieval moated site. The moat used to be c.90m square, the enclosed area containing a house on a raised platform. The site was completely destroyed by a housing development in the 1960s. Only ridge-and-furrow can be seen in the adjacent fields within the survey area, and it may be presumed that no significant archaeology related to the moat extends into the survey area.

A.2.2 GSMR 6731: SO 8651 1905: Gloucester

Romano-British settlement (Rawes 1977). During excavations in advance of culverting of the Horsbere Brook underneath the A417 finds of pottery dating to the 2nd-4th centuries AD, building debris, and two ditches were discovered. The type and full extent of the site was not verifiable during these excavations in the 1970s, therefore there is a possibility that this site extends into the survey area.