| INDEX DATA | RPS INFORMATION |
| :---: | :---: |
| Scheme Title Widening of ms Junctions 2-3 | Details <br> Archareological Assessment |
| Road Number M3 | Date |
| Contractor <br> surreyc Archaeotogical und |  |
| County Surrey |  |
| OS Reference |  |
| Single sided <br> Double sided <br> A3 22 <br> Colour O |  |

## AN ARCHAEOLOGICAL ASSESSMENT OF THE WIDENING OF THE M3 BETWEEN JUNCTIONS 2 AND 3

The following report defines the likely archaeological impact of the proposed widening of the M3 between junctions 2 and 3 on the basis of a desk top study and a walk through of the area. It is divided into three sections:

1. Detailed presentation of the results of the desk-top study.
2. Analysis of the information gleaned from the walk through.
3. Assessment of the nature, areas and quantity of archaeological field evaluation required prior to construction work.

Section 1 has been largely prepared by Dinah Saich (Sites and Monuments Record Officer), Section 2 by Steve Dyer (Archaeological Survey Officer) and the report has been collated and Section 3 prepared by Rob Poulton (Archaeological Unit Manager) with the assistance of Jane Robertson (Archaeological Assistant).

## 1. DESK-TOP ASSESSMENT

### 1.1 ORDNANCE SURVEY MAPS

Ordnance Survey maps at a scale of 1:2500 were examined in various editions from the late-19th century first edition onwards. The attached sketch plan (fig 1) indicates the relationship between the maps and the motorway.

XI, 1 (Editions of 1871, 1897 and 1914)
Most of the area is shown as fields. Trumps Mill (flour) is located on The Bourne. A tracing of the mill overlain on the M3 map shows how the mill streams have been diverted to go through a single culvert under the M3 (fig 2).

X, 8 (Editions of 1871, 1896, 1914 and 1934)
Most of the area is shown as rough grassland or furze with conifers. On the 1914 edition a race course is shown to the south of Longcross Bridge, west of Kitsmead Lane. This was, pemaps, for the Army.

X, 11 (Editions of 1871 and 1915)
Most of the area is shown as grassland or furze with conifers, with fields in the Valley End area. On the 1871 edition a small brick kiln and brick field are shown to the south of Birch Hill. On the 1915 edition a much larger area is shown extracted but the brickfield is now covered by rough grass and conifers. A tracing of these overlain on the M3 map shows the brick kiln/field to be on the line of the M3 (fig 3).

X, 10 (Editions of 1882, 1896, 1915 and 1934)
The area is shown as woodland and fields.
X, 14 (Editions of 1871, 1915 and 1934)
The area is shown as woodiand and fields with some areas of rough grassland or furze. On the 1871 edition Broadley Green Farm is shown on what is now Broadiey Road. The farm has been replaced by houses on the 1915 and 1934 maps. Later editions show Broadley House on this location (fig 4).

X, 13 (Editions of 1885, 1915 and 1934)
The area is shown as woodland and fields with rough grassland to the southwest.



FIG 2. Extract from map no. 1464/C2/108/01/7 with overlay to show diversion of mill streams (as indicated on 1st edition O.S. 1:2500)



### 1.2 TITHE MAPS

Tithe maps were consulted for the parishes of:
Chertsey
Thorpe
Egham
Chobham
Windlesham
Figures $6 \mathrm{a}, 6 \mathrm{~b}$ and 6 c indicate the general location of the parishes.

### 1.2.1 Chertsey (map dated 1844)

291 - Upper Field (grass)
292 - Middle Field (arable)
293 - Lower Field (arable)
294 - The Four Acres (grass)
295 - Sandy Field (arable)
296 - Flat Field (arable)
297-Inner Field (arable)
298 - Five Acres (arabie)
299 - Meadow (grass)
300 - Home Piece (grass)
302 - Harrow Field (grass)
303 - Red Ground (arable)
304 - Gravelly Field (arable)
305 - Brook (grass)
306 - Trumps Mill Brook (grass)
307 -
308 •" "
309-" "
310 -" "
There seems little of direct archaeological significance in these field names.


FIG 5. Sketch plan at $1: 10,000$ of plots as indicated on the Chertsey and Thorpe Tithe maps (overlays to fig 6a)

### 1.2.2 Thorpe (map dated 1840, fig 5)

72 - The Five Acres (arable)
73 - The Seven Acres (arable)
74 - The (?)Paay Field (arable)
75 - The Coppice (wood)
76 - Rick Yard Field (pasture)
77 - Rick Yard Field (arable)
78 - Mill House etc.
81 - Lower Barn Field and Barn (arable)
82 - Long Four Acres (arable)
83 - Upper Barn Field (arable)
There seems little of direct archaeological significance in these field names.

### 1.2.3 Egham (map dated 1842)

The Surrey Record Office could only find the south-eastern section of the parish. It was a print copy of the original and therefore the numbers were largely unreadable. The southern most part of the parish was not shown as plots, presumably because it was "waste".

### 1.2.4 Chobham (map dated 1843)

Many areas of the parish were not shown since:
"many areas of the parish were waste, or for other reasons not titheable".
Therefore nothing is shown, except the odd enclave, approximately north of Burrowhill.

### 1.2.5 WIndlesham (map dated 1841)

Broadway Green Farm is shown as plot 150. The area north of this, along what is known as Broadway Road, is shown as fields. There is no sign of Broadley Green Farm (see section 1.1 and 1.4). This location is shown as plot 110 and 112:

110 - Three Acre Down (arable and woodland)

### 1.3 SITES AND MONUMENTS RECORD INFORMATION

Sites and Monuments Record information is shown on three sheets: Figs 6 (a). (b) and (c) (also see Fig 8).

Other information shown: parish boundaries and geology.
a) 795 - Ring ditches: crop marks. TQ 01756733

815 - Ring ditches and linear ditches: crop marks. TQ 01706719
2824 - Roman pottery vessel 1st-2nd century AD found at TQ 007 673, probably eroded from north bank of The Bourne, upstream.

1866 - Field boundaries: soil marks. SU 996663
b) 1861 - Three round barrows, now destroyed. SU 990657
i353 - "The Bee Garden" SAM No. Surryy 70 Earthwork.
c) 3208 - Possible Roman road seen in side ditches of M3. SU 93206306

2778 - Iron Age material including a ditch and evidence for a bloomery. SU 924627 (vicinity of).

2779 - Romano-British material including 3rd-4th century ditches and evidence for buildings. SU 924627 (vicinity of).

2780 - Medieval pottery. SU 924627 (vicinity of).




### 1.4 EARLY MAPS

The only relevant one at a sufficiently large scale is that of Rocque published in 1768.
'Bordery Green' south of Windlesham.
Broadway Green Farm can be seen north of Hook Mill. A building and enclosed land is visible on the west side of what is now Broadway Road. There is nothing here on the tithe or early O.S. maps. It is approximately opposite the position of Broadley Green Farm on the first edition O.S. map (see fig 7 and fig 6c).

Further west, upstream on the 'Bourne Brook' - now the Windlebrook, is another mill. There is no sign of this on tithe or O.S. maps. It could be on or near the line of the M3 (see fig 7).


### 1.5 AERIAL PHOTOGRAPHS

Aerial photographs held by Surrey County Council, taken in 1988 by JASAIR, were examined without result. Earlier aerial photographic coverage of the county has been intensively examined for the SMR with the results indicated in section 1.3.

### 1.6 PLACE NAME EVIDENCE

VALLEY END: Fal(I)edle(e) 1311, 1461 Chertsey a compound of OE falod 'fold' and leah meaning wood or clearing marked by a fold.

WESTLEY GREEN FARM: Westley Green (1765) probably identical with Westrichegrene in a perambulation of 1446 Chertsey. Here the 'ch' is probably a corruption of 'th', the second element then being the OE rip, 'streamlet' - the little streamlet here forms the western parish boundary for a short distance.

These are the only place names of interest within the study area.

## 2. REPORT ON THE WALK-OVER SURVEY

A walk-over survey of the areas affected by the proposed widening of the M3 between junctions 2 to 3 was carried out by Steve Dyer of the Surrey County Archaeological Unit on July 13th and 14th 1992. This work entailed viewing the land affected by these proposals from the existing hard shoulder of the motorway, and where access was available off public highways and footpaths investigating the land from outside the curtilage of the motorway.

Some of the widening proposals between these junctions takes place within areas that have already been disturbed by the construction of the existing carriageway and by the bridging of minor roads crossing the motorway, in such areas it can be assumed that any archaeological stratlgraphy has been destroyed and that no further action is necessary from the archaeological side. Much of the land affected by the proposed widening scheme appears to be relatively undisturbed and therefore has a high potential for the preservation of archaeological deposits; these areas should be investigated by trial trenching to further evaluate the existence of archaeological material. Such areas are shown on the attached plans, Drawing Numbers: 1464/C2/108/01/1 to 1464/C2/108/01/8, together with an outline of the necessary work in each case.

Drawing 1464/C2/108/01/4 shows an area as disturbed during the construction of the existing M3, one part of this land, metrage 46920 to 47170, has the appearance of not having been disturbed during these works and this should be assessed along with other areas of undisturbed land in this section of the works.

## 3. THE NEED FOR FURTHER EVALUATION

### 3.1 Implications of the desk-top study

The desk-top assessment has revealed a reasonable though not large amount of information relevant to the study area. The specific elements noted include the details noted from the early OS 1:2500 maps which are shown on figs 2, 3 and 4. These sites are worth checking on the ground (if affected by the road proposals) but their potential is difficult to assess as they could all be as late as the 19th century in origin, in which case they will probably be of minor significance. A comparison with the Rocque map (part shown on fig 7) suggests they were not in existence when that was surveyed a little before 1768, although complete certainty is not possible because of the difficulty of precisely relating the 18th century survey to modern maps. Despite this problem it does seem probable that Rocque shows the positions of a mill and farm, both of which have considerable potential importance for an understanding of the settlement history of the area, which have since disappeared, but lie on the line of the M3. Most of the information noted in the sections(1.3 and 1.6) on Sites and Monuments Record and Place Name information is insufficiently precise and/or too distant for any specific comment on its relationship to the motorway. The exception lies in SMR no 3208 (fig 6c) a possible Roman road which crosses the M3, elucidation of the character of which should be given a very high priority. A further exception may be the area indicated as a 'sensitive archaeological area' on fig 8. However, no information available to SCAU justifies this definition, although the proximity of SMR nos 2778,2779 and 2780 clearly indicates a reason for general interest in the area.

The general picture of the landscape which was indicated by Rocque in the 18th century may well hold true for the period from at least the Roman era onwards, although the subject is not well studied (see chapter 2 of The Archaeology of Surrey to 1540 ed J and DG Bird (1987). He indicated that the area was predominantly heathland, interspersed with limited areas of fields and farms, which were presumably taking advantage of locally more favourable soils and topography. Much of the area is still heathland (Bagshot Heath and Chobham Common), and its sterility has become almost infamous in modern times: there are, however, some indications that it may have formed a less hostile environment in prehistory (section 1.3). This means that, even in the absence of items having a specific relationship to the motorway as noted above, there is sufficient evidence for the general area to characterise it as having a low to moderate potential.

### 3.2 Implications of the walk through

The walk through the area has demonstrated that there are 18 discrete areas where the proposed works will have an impact on undisturbed ground sufficient to justify archaeological intervention. These areas are all long narrow strips, without visible indications of archaeological interest. Most do

not bear any specific relationship to discoveries identified in the desk-top study. The following specific relationships may be noted
Brick kiln on fig 3 affected by disturbance 2 (Map 1464/C2/108/01/4)
Mill on fig 7 affected by disturbance 2 (Map 1464/C2/108/01/2)
SMR 3208 Roman Road affected by disturbance 12 (Map 1464/C2/108/01/4)

### 3.3 The need for further evaluation

The evidence presented earlier and the discussion above have made it clear that the sites of new disturbance for the most part have no site-specific archaeological constraints, but do fall within an area where there is a low to moderate potential for the discovery of buried evidence of past activity. In addition there are three specific sites affected by the proposals (as noted above). There will therefore be a need for further archaeological involvement with the scheme and its nature is discussed below.

### 3.4 The methodology of further work

3.4.1 The further evaluation should aim to gather sufficient information to establish the presence/absence, extent, character, quality and date of any threatened deposits within the site.
3.4.2 The following field methodologies have been considered:
a) Fleldwalking - The area is not ploughed so the method is inappropriate.
b) Test pitting - The technique may be a valid one where the problem is more defined, but not in this case.
c) Augering - Given the anticipated character of potential archaeological deposits (lithic and pottery scatters generally at near-surface levels), augering is not considered an appropriate technique as the same information can also be obtained by machine trenching, often in a more cost-effective manner.
d) Geophysical techniques - The narrow corridors available for testing will make such methods difficult to apply and interpret. They are more suited to broader areas but a modified targeted, sampling strategy is proposed if initial results from other techniques suggest this approach is applicable.
e) Geochemical techniques - Such techniques, particularly phosphate sampling, are appropriate at the site definition and examination stage rather than the search and locate stage.
f) Machine trenching - Probably the most commonly used field evaluation technique; it has much to commend it since it provides rapid, cost-effective answers to presence/absence and extent, and enables manual excavation to establish character, date and quality of deposits. The quantity of trial trenching to be undertaken is in need if discussion. A convention seems to be developing that the appropriate level of trenching is a $2 \%$ sample. In the present instance the bands of disturbance are relatively narrow (although generally wider than those identified between junctions 3 and 4) and the adequacy of this level of sampling is probably less than for the areas whose length and breadth are more nearly equal. Nevertheless, on balance and given the definition of the area as having a low to moderate potential, it
remains reasonable to apply this level of sampling.
In sum it is recommended that for the stretch of motorway between junctions 2 and 3 an archaeological evaluation is undertaken by means of controlled machine trial trenching in 18 areas. A 1.2 m wide bucket to excavate a total length of 1500 m of trench divided into c .25 m lengths so as to provide a balanced sample of the areas will be required. An additional 125m of trench may be dug at the discretion of the archaeologist in charge in order to help elucidate any positive indications of archaeological interest which are encountered.
g) Manual excavation - The machine trenching is to be taken down to the top of 'natural' or the top of any significant archaeological level, whichever is the higher. In the event of archaeological deposits being encountered further hand excavation will be undertaken to clarify the nature, character and date of the archaeological deposits, but the primary object is to establish the presence/absence of archaeological deposits, their depth and extent. Archaeological features will generally only be sampled sufficiently to characterise and date them. Full excavation of features need not be undertaken at this stage. Care will be taken not to damage archaeological deposits through excessive use of mechanical excavation.
3.4.3 Recording should be undertaken as follows:
a) All structures, deposits and finds are to be recorded according to accepted professional standards.
b) Plans indicating the location of the excavated trenches and the location of all archaeological features are to be drawn at an appropriate scale. Plans at an appropriate scale should be related to the National Grid. All plans and sections are to be drawn on polyester based drafting film and clearly labelled.
c) All archaeological contexts are to be recorded individually on record context sheets. A further more general record of the work comprising a description and discussion of the archaeology is to be maintained as appropriate.
d) A full black and white and colour (35mm transparency) photographic record of the work is to be kept. The photographic record is to be regarded as part of the site archive.
e) All artefacts recovered during the excavations on the site are to be suitably bagged, boxed and marked in accordance with the United Kingcom Institute for Conservation, Conservation Guidelines No. 2.
3.4.4 A report is to be produced as follows:
a) Within four weeks of completion of the work copies of a report are to be provided to the Motorway Widening Unit, the County Archaeological Officer and English Heritage.
b) The report is to include:

1) a copy of the trench location plan at an appropriate scale together with a plan of the main archaeological features together more detailed plans as appropriate and relevant section drawings;
2) a plan or plans showing the results of other investigative techniques;
3) a descriptive summary and interpretation of the archaeology of the site;
4) a consideration of methodology used, including a confidence rating;
5) brief recommendations for a preservation strategy.

### 3.5 Evaluation logistics

The practicalities of undertaking the trial trenching also need to be considered. The areas to be evaluated are discrete and themselves often in divided ownership and/or land parcels. Once the area has been fenced off and taken into DOT ownership then the trial trenching could be rapidly and economically undertaken. If, however, the archaeological evaluation has to take place before that stage then the logistical problems of obtaining permission and gaining access will be formidable and, perhaps, in some cases insuperable, and the work will cost far more.

In whatever way the problem is resolved there will need to be a suitable allowance of time for the implementation of a preservation strategy (preservation in-situ or preservation by record) before the commencement of construction work.




## PROFUSED M3 WIDENTNG JUNCIIONS 2 TD 3

## PUIENILAL FUR FUTEIHER ARCHARINGGICAL EVAIIRATION

## DRAWING MIMBER 1464/C2/108/01/3.

4 Metrage 44110 to 44320, west-bound carriageway. Widening of road. Strip of land 210 by 10 m . Trial trench along length (cumbine with 3 above). Sane field boundary banks (possibly of some antiquity seen during walk-over).

5 . Metrage 44450 to 44760, east-bound carriageway. Cutting embankment to north of eocisting embankment. Strip of land 310 by $6 m$. Trial trench along length.

6 Metrage 44350 to 44710 , west-bound carriageway. Cutting embankment to south of existing embankment. Strip of land 360 by 12m. Trial trench along length.

7 Woodlands Lare Overbridge, south of M3. Resiting of hridge and approach road. Strip of land 100 by 10 m . Trial trench undisturbed areas.

8 Metrage 44530 to 45930, enst-bound carriageway. Cutting of embankment to north of existing hand shoulder. Strip of land 400 by 20 m . Trial trench along length (ambine with 9, 10 and 11 below).

9 Metrage 45730 to 45930, east-bound carriageway. Proposed planting. Strip of land 200 by 12 m . Trial trench along length (cumbine with 8






## P PRIPOSED MB WITENING JUNCTIOSS 2 TO 3

## CRANING MRPRER 1464/C2/109/01/7.

14 Netrage 51400 to 52100 , west-bound carriageway. Cutting of entanknent to south of existing embanfarent Strip of land 700 by 6 m . Trial trext along length.
15 Netrage 52350 to 52940 , east-bound carriageway. Cutting of embandstent and carriageway to north of existing embankent and hard shoulder. Strip of land 590 by 14 m . Trial tresch along length (combine with 16 17 and 18 below').
16 Metrage 52690 to 52940, east-bound carriageway. Propased planting Strip of land 250 by 14 m . Trial trench along length (ambine with 15 above and 17 and 18 below).



## PROPOSED M3 HIDKNES JUESTINS 2 TO 3

## RIIAL FCR FUPCIHER ABCHARIMIICAL EVALUATION

## 4/C2/108/01/3.

to 44320, west-hard carriageway. Widening of road. 1210 by 10m. Trial trench along length (canbine with 3 field tmmiary banks (possibly of same antiguity seen Ner).
; to 44760, east-bound carriageay. Oitting Enhankment to sting enberkerent. Strip of land 310 by 6 m . Trial trench

J to 44710 , west-tyrnd carriageway. Outting enbankment to sting emimikert. Strip of land 360 by 12 m . Trial trench
ne Overimidge, south of M3. Resiting of tridge and i. Strip of land 100 by 10 m . Trial trench undisturbed

0 to 45930, east-bound carriageway. Cutting of entankerent existing hard shorilder. Strip of land 400 by 20 m . Prial - length (cambire with 9, 10 and 11 below).

10 to 45930 , east-bound carriageway. Prognsed planting. id 200 by 12 m . Trial trench along length (canbine with 8 I and 11 below).



1.320 069


ORIGINAL AT A3






