



HIGHWAYS
AGENCY

ENVIRONMENTAL STATEMENT



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ENVIRONMENT & LANDSCAPE
Environmental Statement

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**M25 M25 IMPROVEMENTS BETWEEN JCTS
12 – 15 ENVIRONMENTAL STATEMENT VOL.2
REPORT 1: CULTURAL HERITAGE 04/96**



HA 44/27/620# 1*

**M25 MOTORWAY
JUNCTIONS 12 TO 15
WIDENING**



Howard Humphreys Consulting Engineers



ENVIRONMENTAL STATEMENT

**ENVIRONMENTAL
STATEMENT**

VOLUME 2 : REPORT 1

CULTURAL HERITAGE

APRIL 1996

**M25 MOTORWAY JUNCTIONS 12 TO 15 WIDENING
ENVIRONMENTAL STATEMENT
VOLUME 2: REPORT 1 Cultural Heritage**

This report is part of the Environmental Statement for the M25 Motorway Junctions 12 to 15 Widening. The Environmental Statement consists of the following reports:

NON-TECHNICAL SUMMARY

VOLUME 1

VOLUME 2:

- | | |
|-----------------|-----------------------------------|
| Report 1 | Cultural Heritage |
| Report 2 | Landscape |
| Report 3 | Nature Conservation |
| Report 4 | Air Quality |
| Report 5 | Noise and Vibration |
| Report 6 | Planning and Land Use |
| Report 7 | Water Quality and Drainage |

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1.0 INTRODUCTION

The Scheme

- 1.1 The Highways Agency propose to widen the M25 motorway between Junctions 12 and 14 to dual five lanes and between Junctions 14 and 15 to dual six lanes. Widening would be entirely within the existing highway boundary. The location of the Scheme is shown in Figure 1.
- 1.2 Howard Humphreys were appointed in 1991 as Consultant for the planning and preparation of the improvement of the motorway between Junctions 12 and 15. Howard Humphreys appointed Chris Blandford Associates as Environmental Sub-consultants for Cultural Heritage.
- 1.3 A scheme for the improvement of the motorway between Junctions 12 and 15 was prepared based on the construction of separate carriageways running parallel to the existing carriageway (known as the Link Roads scheme). Draft Highway Orders and an Environmental Statement were published by the Highways Agency in March 1994.
- 1.4 Following comments received on these Draft Orders, the Secretary of State for Transport announced the withdrawal of the Draft Highway Orders for the Link Roads scheme in April 1995 to be replaced by the proposed Widening scheme ('the Scheme').
- 1.5 The environmental information contained in the Environmental Statement for the Link Roads scheme (Highways Agency, 1994, a-s) has been updated by additional studies in order to assess the effects of the proposed Widening scheme.

The Purpose of this Report

- 1.6 The purpose of this report is to describe the baseline conditions of the Study Area with regard to cultural heritage, to describe proposed mitigation measures and to assess the effects of the Scheme. The cultural heritage is taken in broad terms to mean the physical remains of past human activity and its interaction with the landscape. This includes upstanding archaeological earthworks, palaeo-environmental deposits and stray finds. Historic buildings and elements of the historic landscape, such as parks and field boundaries, are also aspects of the cultural heritage. Some of these have designations, for example, as Scheduled Ancient Monuments (SAMs), Conservation Areas and Registered gardens. The significant impacts of the Scheme are also presented in Volume 1 of this Environmental Statement.

The Study Area

1.7 The extent of the Study Area is shown in Figure 2. The main cultural heritage interest of the Study Area can be summarised as follows:

- Neolithic archaeology of ceremonial monuments, associated settlement activity and palaeo-environmental evidence.
- Middle to late bronze age settlements and riverine sites (with the site at Runnymede Bridge being of national and international importance).
- Iron age and Romano-British sites which are typical of the Thames Valley.
- Three listed buildings of particular note: Great Fosters and garden, Homestead Cottage and West End Farm.
- Runnymede Meadow with the Lutyens Lodges and Runnymede Bridge, and Staines Moor (valuable as exceptional survivals, given the impact of gravel extraction, reservoirs, housing and other development in the area).

2.0 LEGISLATIVE FRAMEWORK

2.1 Environmental Legislation

- 2.1.1 The EC Directive (85/337/EEC) on the environmental assessment of development projects includes 'the cultural heritage' among the factors to be considered in assessing the effects of a proposed development. For certain projects covered by the Directive an Environmental Statement must be produced. This should set out the information specified in Article 3 of the Directive, concerning the development and the likely significant direct or indirect effects of it on the environment. A description of measures envisaged in order to avoid, reduce or remedy these effects is also required as part of the environmental assessment.

2.2 Archaeological Legislation and Guidance

- 2.2.1 The principal statutory definition and designation of archaeological sites is contained within the Ancient Monuments and Archaeological Areas Act 1979. This Act states that the Secretary of State 'shall compile and maintain ... a schedule of monuments' which 'may ... include ... any monument which appears to him to be of national importance' and 'any Scheduled Monument; and any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it' (Section 61(12)). Only about 2-3% of known monuments are Scheduled; this is currently under review by English Heritage.
- 2.2.2 Eight criteria for judging national importance in England have been developed. These are indicative rather than definitive and are as follows: survival/condition; period; rarity; fragility/vulnerability; diversity; documentation; group value; potential (see also Section 4.7). These are published in Annex 4 of the Planning and Policy Guidance Note 16 'Archaeology and Planning' (PPG 16 (1990)) which is discussed below.
- 2.2.3 It is an offence to carry out various activities, without authorisation, which may damage or otherwise physically affect a Scheduled Ancient Monument and this includes any works resulting in the demolition or destruction of or any damage to a Monument (Section 2 (2)). To carry out such activities specific consent must be sought from the Secretary of State who is obliged to consult English Heritage. For road schemes, the Highways Agency must seek Scheduled Monument Clearance from the Department of National Heritage.

- 2.2.4 PPG 16 deals specifically with archaeological remains and sets out how they should be preserved or recorded. The guidance recognises that archaeological remains are a finite and non-renewable resource and sets out the importance of early consultation between developers, the local authority archaeologist and archaeological bodies and the necessity of making decisions on development in the light of adequate knowledge of the archaeological interest of the site.
- 2.2.5 PPG 16 states that nationally important remains, whether Scheduled or not, should be preserved *in situ* (para. 18). Where possible this aim is also applied to less important sites. Where it has been established that preservation *in situ* of a site is not justifiable or possible then provision must be made for the adequate recording of a site. PPG 16 (para. 25) states that it is entirely reasonable for a planning authority to satisfy itself that a developer has made adequate provision for the excavation and recording of remains.

2.3 Historic Buildings Legislation and Guidance

- 2.3.1 The protection of Listed buildings is regulated by the Planning (Listed Buildings and Conservation Areas) Act 1990. In general, Listed buildings and structures are selected due to their architectural and historical interest, close historical associations and/or their group value. It should be noted that the grades (I, II* and II) are not intended to suggest a strict division between national, regional/county and local importance (see also Section 4.9.2). Conservation Areas are areas the character or appearance of which it is desirable to preserve or enhance. They are designated by local authorities.
- 2.3.2 Further guidance has recently been set out in Appendix 7 of PPG 15, Planning and the Historic Environment (1994). This document considers the issue of the setting of a Listed building in the application for planning permission:

'The setting is often an essential part of the building's character they can be robbed of much of their interest, and of the contribution they make to townscape or the countryside, if they become isolated from their surroundings.' (para. 2.16).

3.0 STUDIES UNDERTAKEN

- 3.1 For this assessment a corridor considerably wider than the highway boundary has been studied. This provides information on the context of features and allows potential indirect impacts to be assessed. The corridor for the collection of data was approximately 500 m either side of the Scheme. Most of the data were collected for the Link Roads scheme including the results of archaeological fieldwork in areas which would have been directly affected by that scheme (Figures 7 to 10). This information provides information on the context of the whole area. For the Scheme, all widening would be within the existing highway boundary.
- 3.2 This report is based largely on published sources, information obtained from archaeological fieldwork and studies commissioned as part of the Link Roads scheme, and information from the Sites and Monuments Records (SMR) of each county. These data have been supplemented by information from the National Archaeological Record (NAR) of the Royal Commission on the Historical Monuments of England (RCHME). The aerial photographic library of the RCHME was consulted together with photographs available at Surrey County Council and others obtained by the consulting engineers. Historic maps were examined, primarily first edition Ordnance Survey one and six inch maps, tithe maps and eighteenth and nineteenth century county maps of Surrey.
- 3.3 The appropriate sources for SAMs, Registered parks and gardens and Conservation Areas were consulted. Other material and sources referred to are listed in Section 7.0.
- 3.4 The following groups and individuals were consulted for comments and information:
- English Heritage
 - Ancient Monuments Inspector
 - Historic Buildings Inspector
 - London Division Archaeologist
 - Buckinghamshire County Council
 - County Archaeologist
 - Surrey County Council
 - County Archaeologist
 - Historic Buildings Officer
 - Berkshire County Council
 - County Archaeologist
 - British Museum
 - Archaeologist (Runnymede specialist)
 - The National Trust
 - Regional Land Agent

3.5 The following districts and boroughs were consulted for data on Listed and non-Listed historic buildings and structures:

- London Borough of Hillingdon
- Runnymede Borough Council
- Slough Borough Council
- Spelthorne Borough Council
- South Buckinghamshire District Council
- Windsor and Maidenhead Royal Borough Council

3.6 As part of the assessment of the Link Roads scheme the baseline data compiled from existing records were enhanced by fieldwork and a literature search. The work undertaken for this study is set out below. For the assessment of the Scheme the information collected for the Link Roads ES was added to by another series of consultations with local and statutory authorities and an assessment of the potential impacts of the Scheme .

4.0 METHOD OF ASSESSMENT

- 4.1 Guidance on the environmental assessment of road schemes is set out in the Department of Transport's *Design Manual for Roads and Bridges, Volume 11 Environmental Assessment* (DMRB). Section 3, Part 2 of the DMRB deals with Cultural Heritage which covers Archaeology (chapters 3-8) and Listed buildings, Conservation Areas and Other Designations (chapters 9-13).
- 4.2 It is appropriate to discuss the landscape history of an area in the context of archaeological features and historic buildings. Historic landscape issues are therefore dealt with as part of this cultural heritage report which should be read in conjunction with the landscape report (Volume 2, Report 2). However, it should be noted that the DMRB deals with historic landscapes under the heading of landscape, rather than heritage.
- 4.3 The importance of archaeological remains is recognised by the DMRB. It notes PPG 16 and reiterates the presumption in favour of the *in situ* preservation of nationally important archaeological remains, whether scheduled or not (Section 3, Part 2, Chapter 6, Para. 6.3). It also notes that in cases involving remains of lesser importance the issues may not always be clear. Chapter 11 of the DMRB notes that the impact of road schemes on historic buildings is similar to but more acute than that on modern buildings, as such structures are more valuable in historic terms and more sensitive to a deterioration in their surroundings. In discussing historic buildings, Conservation Areas and Registered parks and gardens the DMRB notes that, like archaeological remains, the severance of links between a structure and other associated features should be considered as an impact.
- 4.4 This Environmental Statement is a report on the assessment of the significant impacts likely to arise from the Scheme and aims to identify the location, type and importance of the cultural heritage constraints associated with the route.
- 4.5 The assessment of impacts involves the following processes:
- information collection and assessment of the existing situation;
 - evaluation of the importance of the existing situation;
 - predicting the scale of effects (taking into account mitigation);
 - assessment of the significance of predicted impacts (taking into account the importance of the feature and the scale of the predicted effect).

- 4.6 It is important to distinguish between effects and significance of impacts. The significance of an impact is a combination of the scale of the effect and the importance of the site or feature.
- 4.7 There is no standard method for assessing the significance of impacts on the cultural heritage. The severity of a given level of land take or visual intrusion varies with the importance of a site or feature and its existing environment. The significance of impacts has therefore to be judged taking the following into account:
- in assessing the scale of the effect the proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;
 - assessment of the levels of noise, visual and hydrological impacts, either in general or site-specific terms, provided by other specialists;
 - in assessing the importance of the feature factors such as the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value.
- 4.8 The work undertaken to collect information and assess the existing situation has been presented in Section 3.0. The methods and terms used in this impact assessment are set out in more detail below.

4.9 Evaluation of Cultural Heritage Importance

Criteria

- 4.9.1 The importance of archaeological sites, historic buildings and landscape features varies considerably. The starting point for evaluating cultural heritage features is a consideration of their statutory or non-statutory status (SAMs and Registered parks and gardens, for example). In the case of Listed buildings and Registered parks and gardens, their grades (I, II* and II) are the main basis of evaluation, although the grading is not intended as a strict division between national, regional/county and local importance (see Section 2.3).
- 4.9.2 The importance of cultural heritage features can be further defined by use of the non-statutory criteria for the Scheduling of Ancient Monuments (as extended for the English Heritage Monuments Protection Programme) and the Department of the Environment guidelines for listing and grading historic buildings and Registered parks and gardens (see Section 2.2).

- 4.9.3 The evaluation of importance therefore takes into account consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected;
- 4.9.4 In this cultural heritage assessment, the evaluation of the importance of features affected by the Scheme has been made firstly by general reference to these guidelines and secondly on professional judgement.
- 4.9.5 The setting of historic buildings and structures affected by visual intrusion has been assessed with reference to the features which contribute to, or detract from, their historic character. The assessment of visual intrusion has taken into account the effects of the Scheme on views of and from the building or structure and its wider setting in line with the method set out in the Landscape report (Volume 2, Report 2).

Grading System

- 4.9.6 Using these criteria, the cultural heritage interest of the sites and features of the Study Area has been graded as follows:
- International importance: sites with internationally recognised designations such as World Heritage sites and/or Scheduled Ancient Monuments supporting internationally important features.
 - National importance: SAMs, grade I and grade II* Listed buildings and other nationally outstanding sites or features.
 - County importance: grade II Listed buildings, Areas of Archaeological Importance or their equivalent, and other sites or features which are of particular interest or have few or no other examples in the county or Metropolitan area.
 - Local importance: sites or features which may be of interest at a district level because they support a good range of interest but which also occur elsewhere in the county or local area.
 - Negligible interest: other sites with no known importance.
- 4.9.7 The results of this evaluation are summarised in Section 5.0.

4.10 Potential Effects and Mitigation

Negative Effects

- 4.10.1 Road schemes can have a variety of effects on features relating to the cultural heritage. These effects can be direct or indirect. Direct effects include permanent land take removing buried archaeological deposits, or changes to the hydrology of an area resulting in de-watering, causing the desiccation of organic archaeological remains. Direct effects on the built heritage include the physical loss of a structure or its curtilage.
- 4.10.2 The potential indirect effects of road schemes include visual and noise intrusion arising from construction activities and built earthworks, impinging on the setting of historic structures and archaeological sites. Dereliction or neglect of historic buildings can also result from road schemes, for example where schemes render buildings unviable for occupation.

Positive Effects

- 4.10.3 On-line road schemes can have benefits to cultural heritage resources. For example, the introduction of better screening and improved environmental barriers can lead to reductions in the intrusiveness of existing structures or traffic affecting the setting of historic buildings.

Scale of Effects

- 4.10.4 The assessment of the scale of effects is dependent on expert judgement. However, in order to allow comparisons, it is necessary to define the terminology used. For the purposes of this study, the scale of effects has been graded as substantial, moderate, slight and negligible.
- 4.10.5 Substantial effects are those which clearly breach national and local policy guidance or which otherwise would substantially detract from the cultural heritage interest of the area. These would be effects which directly or indirectly damage or destroy all or most of the cultural heritage interest of a site or feature. Moderate effects are those which directly or indirectly damage or destroy part of the cultural heritage resource, leaving most of the site *in situ*, or which affect the setting of a site or feature so severely that its value or interest is reduced. Slight effects are those which affect only a small part of the site or feature or which affect its setting in a noticeable way but without causing its overall value to be reduced. Negligible effects are those which do not cause identifiable changes in the cultural heritage interest of a site or feature.

- 4.10.6 In archaeological assessment it is often difficult to assess the scale of likely effects, as there is often a large degree of uncertainty as to the extent and nature of a site or feature. Where this is a particular problem, the scale of effect is described as 'uncertain' or as a 'risk'.

Mitigation

- 4.10.7 Where potential conflict exists between archaeological remains and a particular road scheme it is important that appropriate mitigation measures should be implemented to safeguard the archaeological interest (Chapter 7 of the DMRB). Defining the appropriate measure or measures is dependent on a proper programme of assessment to define the archaeological resource, and to gain knowledge which can be integrated into design decisions. Mitigation measures can include routeing a scheme away from important archaeological sites, preserving archaeological remains beneath earthworks or conducting archaeological excavation and recording in advance of development, and watching briefs during construction to record significant remains. To reduce the impact of road schemes on the setting of the built heritage Chapter 12 of the DMRB recommends the use of landscape techniques such as cuttings and planting to integrate a scheme into its setting. Other indirect effects can be mitigated through methods to reduce noise levels by noise fencing and the use of porous asphalt.

Assessment of Significance

- 4.10.8 It is important to distinguish between effects and the significance of impacts. The significance of an impact is a combination of the scale of the effect and the importance of the site as described above. The scale of impacts has been determined using the following matrix.

Table 4.10.8: Assessment of Significance of Impacts

Importance of Feature	Scale of effect				
	Substantial Effect	Moderate Effect	Slight Effect		Negligible Effect
			Long Term	Short Term	
International	Very Major Impact	Major Impact	Major Impact	Moderate Impact	Negligible Impact
National	Major Impact	Major Impact	Moderate Impact	Minor Impact	Negligible Impact
County	Major Impact	Moderate Impact	Minor Impact	Minor Impact	Negligible Impact
Local	Moderate Impact	Minor Impact	Negligible Impact	Negligible Impact	Negligible Impact
Negligible	Negligible Impact	Negligible Impact	Negligible Impact	Negligible Impact	Negligible Impact

4.10.9 For the purposes of this ES, the matrix has been used to determine which impacts are 'significant'. In this case, those impacts above the bold line are regarded as 'significant'. All negligible impacts are 'insignificant'.

5.0 EXISTING CONDITIONS, MITIGATION AND IMPACT ASSESSMENT

5.1 The widening of the M25 within the existing highway boundary removes much of the potential direct impact on archaeological remains, although it is possible that in some instances features of archaeological interest could remain within the highway boundary. The majority of the potential impacts of the Scheme relate to indirect effects, such as impacts on their setting due to noise or visual intrusion. Where possible, sites or features have been referred to by modern names. Archaeological sites are listed in Appendix A; historic buildings in Appendix B and historic landscapes in Appendix C. Sites referred to are identified on Figures 3 to 10.

5.2 Bronze Age Sites and Finds at Thorpe (Figures 3 and 7)

5.2.1 Bronze age activity was identified during gravel extraction at Muckhatch Farm in 1971-2. Trial-trenching of land to the east of the M25 and west of Thorpe village alongside the Thorpe Bypass was undertaken for the Link Roads scheme in 1994 to clarify the archaeological potential of the area. This comprised the excavation of seven trial-trenches in an area which is now Public Open Space (No. 405) and a copse. The work revealed a small quantity of archaeological remains. It seems likely that the spread of bronze age material found throughout this area represents a series of relatively discrete foci of activity rather than a more general spread of settlement. The evaluation confirms that the area has some potential for bronze age archaeology where there are still relatively extensive areas of undisturbed ground, as on the eastern side of the M25. These remains are considered to be of county importance.

5.2.2 On the western side of the M25 the area where bronze age finds were found at Longside Lake (Nos. 268-71), including infilled land immediately north of the lake, has been extensively excavated for gravel; field evaluation confirmed this. The triangle of land between the M25 and the Thorpe Bypass was evaluated as the amount of undisturbed land was unknown. Test-pitting revealed that the land had been extracted and landfilled. There may be archaeological features which survive at the edge of the extracted area although these would be unaffected by the widening proposals. The area which would be affected is of negligible importance.

Mitigation

5.2.3 Mitigation measures would not be required.

Impact

- 5.2.4 There would be no impact on archaeological remains to the north of Thorpe between the Thorpe Bypass and the M25.

5.3 West End Farm (Figures 3 and 7)

- 5.3.1 West End Farm (No. 36) is located on Rosemary Lane east of the Thorpe Bypass. The property is an exposed timber-framed structure with square panels. Originally built in the late sixteenth century this grade II Listed building has been considerably altered and restored in the nineteenth and twentieth centuries making extensive use of old timbers and bricks. It is of county importance. The M25 already has an impact on the setting of the building.

Mitigation

- 5.3.2 There would be porous asphalt along this length of the M25 reducing the traffic noise levels experienced at this property.

Impact

- 5.3.3 The widening would slightly increase the visual intrusion of the road on this property as the carriageway would be marginally closer, although there would be some reduction in the noise intrusion. Overall the effect would be negligible, and the impact would be insignificant.

5.4 Hall Aggregates Gravel Pit and The West Side of the M25 (Figures 3 and 7)

- 5.4.1 Sites of prehistoric, Romano-British, medieval and post-medieval remains were discovered and partially excavated (Nos. 263-5) on the line of the M25 in 1972-4 (Johnson, 1975), and extensive excavation and evaluation work has been carried out between the M25 and Thorpe Lea Road in advance of gravel extraction (Nos. 266-7 and 279). The excavations revealed five main phases of activity, including evidence from the bronze age, middle iron age, late iron age, and the early and late Romano-British periods. These remains are of county importance. On current evidence, the Hall Aggregates site is of county rather than national importance, and much would already have been destroyed by the time widening would take place.

Mitigation

- 5.4.2 Mitigation measures would not be required.

Impact

- 5.4.3 There would be no impact on these remains from the Scheme.

5.5 Great Fosters, Buildings, Garden and Historic Landscape (Figures 3 and 7)

- 5.5.1 Great Fosters is a grade I Listed building (No. 24) and its garden is Registered grade II* (No. 447). Within the garden are two other Listed buildings, the barn (now banqueting hall) (No. 25) and the residential block (No. 26) both grade II.
- 5.5.2 The earliest surviving part of Great Fosters is its moat, popularly believed to be Anglo-Saxon but more likely to be medieval. The main part of Great Fosters dates from the sixteenth century, and is a late but good example of Jacobethan taste. Major refurbishments have enlarged and elaborated the building. The architect W. H. Romaine-Walker was commissioned in the early part of the twentieth century to adapt the house to the building which largely survives today.
- 5.5.3 The gardens were laid out by Romaine-Walker and his partner G. H. Jenkins. They were commissioned to restore and enlarge the gardens taking advantage of the sparse remains of the original layout. To the west of the house, topiary and box-gardens are present. To the east is a parterre with a topiary centre piece enclosed by a moat, the eastern arm of which is spanned by a Japanese-style bridge leading to a circular rose garden. Beyond the parterre is a lime avenue which was severed at its eastern end by the M25 in the 1970s.
- 5.5.4 The property was converted to a hotel in 1927 which soon became one of the most fashionable in the country. In 1930 a tithe barn was bought and reconstructed on the southern end of the house for balls and banquets. Being close to Ascot, Great Fosters became a favourite location for affluent society.
- 5.5.5 The area around the garden has the greatest survival of pre-twentieth century landscape features as can be seen from a comparison between modern landform and Rocque's map of 1762 (Figure 12). The Ordnance Survey first edition 25" (1881) (Figure 11) also shows how the road network and field pattern has been preserved.
- 5.5.6 This historic building and landscape of national importance already receives a substantial impact from the M25.

Mitigation

- 5.5.7 Porous asphalt would be laid on the carriageways which would help to reduce noise levels. "Off-site" mitigation measures are currently under discussion. These include a semi-circular, 3 m high earth bund to be constructed within the lime avenue. Existing conifers adjacent to the M25 would be retained during the construction of the bund so there would be minimal impact on the setting of Great Fosters. Three trees from the lime avenue would be lost as a result of constructing the bund, but these would be replaced. There would be extensive planting undertaken over the bund which would also help to screen views of traffic from the garden and house.

Impact

- 5.5.8 These proposals would result in a direct long term moderate impact on the area of the registered garden. There would be an indirect short term impact during road construction and during the construction of the mitigation as views would be opened to the M25. However, provided that agreement with the landowners is reached on the mitigation there would be an improvement to the setting of the building and the gardens in the long term. Overall this is considered to be a moderate beneficial impact.

5.6 Homestead Cottage (Figures 3 and 7)

- 5.6.1 Homestead Cottage (No. 22) is a grade II Listed building situated on Clockhouse Lane West, adjacent to the M25. The property is owned by the Highways Agency and is currently tenanted. The Highways Agency will maintain the property and continue the tenancy to prevent unauthorised use and deterioration of the fabric. The property would be sold after construction of the Scheme.

Mitigation

- 5.6.2 Porous asphalt would help to reduce the noise from the traffic on the carriageway, as would the existing noise fence.

Impact

- 5.6.3 Given that the house has so far proved viable despite the proximity of the M25, it is reasonable to expect that with the proposed mitigation this would remain the case. These effects would be negligible and the impact of the Scheme would also be negligible.

5.7 North of Wickham Lane (Figures 4 and 8)

- 5.7.1 There is evidence from the field evaluation undertaken in 1994, of prehistoric activity on the western side of the motorway (No. 259). These remains suggest a site of potential county importance. No archaeological features were found on the eastern side of the motorway. The M25 carriageway is raised on embankment above the area at this location.

Mitigation

- 5.7.2 No mitigation measures are required.

Impact

- 5.7.3 The Scheme would not encroach on to the area of potential importance. There would be no impact on the cultural heritage.

5.8 Romano-British Settlement and Prehistoric and Medieval Finds, West of Pooley Green (Figures 4 and 8)

- 5.8.1 A Romano-British settlement site (No. 256) was discovered close to the line of the M25 just south of the London Ascot Railway line in 1973. Subsequent small scale trial excavations discovered evidence of ditches from the first to the fourth centuries AD (Johnson, 1975). Further finds were made in the excavations for the M25 railway bridge and footbridge and in the motorway drainage ditches. Romano-British pottery was found north of the railway (No. 251) and finds of worked flint (Nos. 252 and 259) and a late bronze age axe (No. 257) have also been found in the area. In addition a possible medieval moated site is to the east of the M25 in Vicarage Road (No. 285), with medieval pits to the west (No. 253). This area is of between local and county importance.

- 5.8.2 The M25 carriageway is raised on embankment above the area of interest at this point.

Mitigation

- 5.8.3 No mitigation measures are required.

Impact

- 5.8.4 The Scheme would not disturb these remains, and there would be no impact on the cultural heritage.

5.9 Unigate Dairies (Figures 4 and 8)

5.9.1 Field evaluation prior to construction of the M25 in 1972 located bronze age and Romano-British remains in the area of Petters Sports Field at Egham (No. 242, now Unigate Dairies), which was severed by the motorway (Johnson, 1975). However, a trial-trench excavated for the Link Roads scheme, immediately to the south of Unigate Dairies and to the north of the main area investigated in the 1970s, did not reveal any significant archaeological features. Another trial-trench, excavated to the south of the main area investigated in the 1970s, did not contain any archaeological features. However, there may be isolated earlier bronze age features and Roman ditches in this area.

5.9.2 Any further significant remains relating to the late bronze age at Unigate Dairies would be of national importance. The neolithic and early bronze age antecedents of this complex are also of substantial importance in understanding its origins. The subsequent Roman material, apparently following a period of abandonment in the iron age, is of limited interest but it would add to knowledge about the general context of the nearby Romano-British settlement evidence.

5.9.3 The M25 is on an embankment in this location.

Mitigation

5.9.4 No mitigation measures are required.

Impact

5.9.5 The Scheme would have no effect on the two confined areas of interest in relation to the late bronze age settlement. There would be no impact on the cultural heritage.

5.10 Runnymede Bridge (Figures 4 and 8)

5.10.1 The present A30 and M25 bridges span the River Thames at a point where there was an island now indicated by the line of the old Berkshire/Surrey county boundary following a largely infilled channel. This channel is not shown on early maps, such as Rocque's county map of Berkshire (1762) (Figure 12), although a relict of it is still evident in the small creek at its east end. Finds in this area include evidence from the neolithic period and bronze age. During construction of the new Runnymede Bridge in 1978, remains of a major late bronze age waterfront structure built of oak piles were discovered, associated with extensive and

very dense settlement debris. The area to the west of the present A30 was Scheduled as an Ancient Monument on 8th December 1980 (No. 238).

- 5.10.2 These investigations revealed a sequence of mesolithic to late bronze age occupation (Nos. 238 and 239). This includes a major late bronze age waterfront site, possibly with defences, intended to control river traffic as a key part of an important system of exchange in prestige goods, agricultural produce and other commodities (Johnson, 1975; Needham and Longley, 1980; Needham, 1985; Longley, 1986; Needham, 1992).
- 5.10.3 The Runnymede Bridge complex is of national and international importance. The long undisturbed sequence, the exceptional preservation of finds, organic artefacts and palaeo-environmental remains and the unusual function and status of the prehistoric sites are of outstanding interest, particularly for the neolithic and late bronze age phases. Although the sequence of occupation activity is the most important core element of the complex, the sequence of channel and alluvial deposits is crucial to its understanding and is a major reason for its overall significance.

Mitigation

- 5.10.4 The National Rivers Authority require improvements to the standard of the existing oil interceptor which is located within the boundary of the SAM, at the foot of the motorway embankment. The proposed solution has been designed so as to avoid affecting the archaeological interest as much as possible. The existing oil interceptor would remain in place. A new pollution control unit (pcu) would be constructed at the top of the embankment, thereby avoiding major disturbance of the original ground surface. However, a new concrete headwall would be required in the existing drainage ditch and a new drainage pipe would be required. These would require a very limited amount of excavation in the existing ditch. Accumulated sediment would also be removed from the existing drainage ditch. Consultations with English Heritage have been undertaken and would continue, to ensure that the effects of the proposed works on the SAM are minimized. Scheduled Monument Clearance would be sought from the Department of National Heritage and the work would be undertaken within any conditions imposed. All works undertaken would be carried out under archaeological supervision.

Impact

- 5.10.5 The proposed drainage measures would require a very limited amount of excavation of the existing ground surface in a small area in the existing drainage ditch. It is likely that much of this area has been disturbed previously during construction of the ditch. The likely effects on the SAM would be slight but long term. The Scheme would therefore have a moderate impact on this monument of national importance.

5.11 Runnymede Meadow and The Lutyens Lodges (Figures 2 and 6)

- 5.11.1 To the north of Egham is Runnymede Meadow (No. 449) where the armies of King John and the confederated barons are supposed to have camped whilst the Magna Carta was signed. It is registered common land and is now preserved in the ownership of the National Trust. It is of national importance.
- 5.11.2 Either side of the A308 is a lodge (Nos 10 and 11) designed by Sir Edwin Lutyens, built between 1930 and 1932. The pair was described by Nairn and Pevsner as 'two sadly over-designed pyramid-roofed' structures (1962, 182). The bridge for the current A30 was also designed by Lutyens but was constructed after his death. These structures are of county importance. There is already visual intrusion from the M25 on their setting when viewed from the west.

Mitigation

- 5.11.3 Porous asphalt surfacing is proposed on the M25 which would reduce traffic noise in this area.

Impact

- 5.11.4 There would be no direct impact on Runnymede Meadow or the Lutyens Lodges. Noise levels would be reduced by the Scheme. During construction there would be increased visual intrusion but in the long term there would be no change. Overall, the impact of the Scheme would be negligible.

5.12 The Causeway, Egham (Figures 4 and 8)

- 5.12.1 The A308 road (No. 245, The Causeway) north of Egham village follows the edge of the flood plain. This is the supposed line of the Roman road from London to the south-west passing through Staines and presumably Egham, via The Causeway to Silchester in Hampshire. A section of a road (No. 240) was found during the digging of a drainage trench

by the Glanty Loop. At some time between 1216 and 1272 the Egham Causeway (No. 241) was constructed by Thomas de Oxenford, to transport his wool more efficiently. There are many subsequent historical references to arguments between the King, the abbot of Chertsey and townspeople as to who should pay for its upkeep (patent rolls of Henry VI, 1437). This area is of local importance.

Mitigation

- 5.12.2 No rescue archaeology is possible in advance of construction. The potential for impacts would be closely monitored by liaison with the design engineers as the detailed design progresses. Consultations would also be undertaken with English Heritage and the County Archaeologist. A watching brief during construction would be undertaken to record any visible deposits.

Impact

- 5.12.3 The strengthening of the Glanty bridge piers would require excavation around the piers to a depth of approximately 0.5 m. Any affect on sub surface remains would be limited to an area which is likely to have already been disturbed. The Scheme, therefore, represents a low risk of affecting remains. The potential loss of a limited area of remains would be a slight effect on an area of local importance, resulting in a negligible impact on the cultural heritage.

5.13 North Bank of Thames and Queensmead Lake (Figures 4 and 8)

- 5.13.1 No archaeological remains are known on the north bank of the Thames opposite the Runnymede Bridge complex. Immediately to the east of the northern end of the Thames crossing there is an area of woodland (No. 401) which corresponds to a wood shown on the Ordnance Survey, Old Series 1" map (1811) (Figure 13), although this is not classified as ancient woodland in the Surrey Inventory of Ancient Woodland (1988) because it is under two hectares (ha) in size.
- 5.13.2 A narrow strip of land adjacent to the east side of the M25 and Queensmead Lake was evaluated for the Link Roads scheme. Trial-trenching and test-pitting revealed a depth of alluvium on top of the gravel, but no artefacts or archaeological features were located. The alluvium ranged in depth from 0.9 m near the river to 0.25 m further north. The alluvium was sealed by later soils, including a possible buried plough soil. Deposits of modern material of various depths were also noted over most of the site.

- 5.13.3 These areas are of local importance.

Mitigation

- 5.13.4 Mitigation measures are not required.

Impact

- 5.13.5 The Scheme would have no effect on these features on the north bank of the Thames or the area of woodland, and therefore would have no impact on the cultural heritage.

5.14 Yeoveney Lodge Causewayed Enclosure and Church Lammas Bronze Age Site (Figures 4 and 8)

- 5.14.1 An early to middle neolithic causewayed enclosure (No. 229) was discovered by air photography to the south of Yeoveney Lodge in 1959 and excavated prior to gravel extraction in 1961-63 (Robertson-Mackay, 1987). The site was subsequently used for the construction of Junction 13 of the M25. Such sites are among the most important monuments of Britain's first farmers. Currently about 15 sites are known in the Thames Valley, but only five or six of these occur in the middle and lower Thames.
- 5.14.2 Archaeological trial-trenching and test-pitting was undertaken in this area in 1994. A triangle of land in the north-eastern corner revealed a ditch and some possible pits sealed by alluvium. Worked and burnt flint and prehistoric pottery were retrieved. These features are probably of bronze age date, and are between of local and county importance.
- 5.14.3 In Church Lammas field (No. 451), about 500 m to the east of the neolithic enclosure, excavations by Surrey County Council revealed an unusual bronze age enclosure in Church Lammas field. This was a small rectangular enclosure approximately 25 m x 35 m with a narrow entrance to the north east and south east (Hayman, 1990). There was a smaller 10 m square enclosure containing a possible burial pit inside the larger enclosure. Linear ditches on the same alignment as the main enclosures suggest that the site may have lain within a more extensive field system. The enclosure is of an unusual form and its function is unclear, although suspected to be funerary or ritual in character. It is of at least county importance.

Mitigation

- 5.14.4 Mitigation measures would not be required.

Impact

- 5.14.5 The majority of the areas of land where Yeoveney Lodge causewayed enclosure and Church Lammas bronze age site exist have already been disturbed. The widening of the M25 within the highway boundary would have no impact.

5.15 Buildings at The Moor (Figures 4 and 8)

- 5.15.1 To the east of Junction 13 on the edge of Staines Moor there are two Listed buildings within the settlement called The Moor. Yeoveney Manor Lodge (No. 33) is a grade II Listed building dating to the early nineteenth century, comprising a north and south wing and coach house wing. The property is entered by a gateway with pineapple capped piers. The setting of Yeoveney Manor Lodge currently receives a moderate adverse visual impact from the M25. It is of county importance.

- 5.15.2 Moor Cottage (No. 34) is a grade II Listed building and probably dates to the seventeenth century. It is a plain rendered two-storey cottage with a half-hipped old tile roof and a large central chimney. It is of county importance. It currently receives a substantial adverse impact from the M25.

Mitigation

- 5.15.3 Porous asphalt would reduce the amount of traffic noise currently experienced by these buildings.

Impact

- 5.15.4 There would be no perceptible change to the setting of these buildings under the proposed Scheme. The impact on the cultural heritage would be negligible.

5.16 Cambridge Kennels (Figures 4 and 8)

- 5.16.1 No archaeological remains were recorded on this site, but due to the general archaeological potential of the area, trial-trenching was undertaken for the Link Roads scheme. This involved the excavation of nine trenches representing approximately a 2% sample of the available area. A palaeo-channel was located which mirrored the alignment of the modern channel. Some worked wood was retrieved but no diagnostic flints or pottery were found. This wood has provisionally been dated to between the Roman and medieval periods. The south-eastern half of the site was revealed to have been stripped down to gravel and filled with modern rubble. The site as a whole is of between local and county importance.

Mitigation

- 5.16.2 No mitigation measures are required.

Impact

- 5.16.3 There would be no disturbance of any archaeological deposits and therefore no impact on the cultural heritage.

5.17 Runnymede Cottages Nos 1-4 on Moor Lane (Figures 4 and 8)

- 5.17.1 On the western side of the M25 at Moor Lane there is a row of late nineteenth or early twentieth century terraced brick cottages (No. 37) which are situated close to the M25. The properties are of local historic interest. The properties already experience substantial visual intrusion.

Mitigation

- 5.17.2 Porous asphalt would reduce the amount of traffic noise experienced at these properties.

Impact

- 5.17.3 Although no land would be required from Runnymede Cottages by the widening of the M25, the widened road would affect their setting. The cottages would be immediately adjacent to the road and so the visual intrusion of the road on this property would increase. In the short term, disturbance due to construction would constitute a minor impact. Noise levels due to traffic would decrease. Overall, the long term effect of the Scheme would be slight, and the impact on the cultural heritage would be negligible.

5.18 Poyle Meadows (Figures 5 and 9)

- 5.18.1 A small piece of land on the south-west side of Junction 14 was evaluated in 1994 as its potential was unknown. Geotechnical information suggested that the land might be undisturbed and that its archaeological potential might therefore be high. Trial-trenching and test-pitting however, showed that the site had been extracted and infilled. It is of negligible importance.

Mitigation

- 5.18.2 No mitigation measures are required.

Impact

- 5.18.3 The evaluation confirmed that this area had been quarried and landfilled. The Scheme would have no impact.

5.19 Great West Road, Mad Bridge and Milestone (Figures 6 and 10)

- 5.19.1 Mad Bridge (No. 38) is a red brick nineteenth century road bridge on the line of the Great West Road from London to Bath. An associated grade II Listed milestone (No. 4) inscribed 'XVI miles from Hyde Park Corner 1741' is situated on the embankment above Mad Bridge. All of these features are situated outside the highway boundary. The line of the Great West Road, Mad Bridge and the Listed milestone are features of local interest.

Mitigation

- 5.19.2 No mitigation is required.

Impact

- 5.19.3 As these features are situated outside the highway boundary the Scheme would have no impact on the cultural heritage.

5.20 Staines (Stanwell) Cursus (Figures 6 and 10)

- 5.20.1 The gravel terraces in the vicinity of Heathrow Airport have revealed numerous crop and parchmarks of buried archaeological ditches. The most notable of these is a parallel pair of ditches, running north-north-east to south-south-west about 20 m apart extending (allowing for breaks when they are not visible as cropmarks) over 3.5 km. At their northern end the two ditches were linked by a curved terminal adjacent to the Bigley Ditch, just to the west of Junction 15. Their southern extent is not fully known. Excavations in 1979-85 showed that they were earlier than a bronze age field system and contained neolithic pottery (O'Connell, 1986a). The evidence indicates that these ditches belong to a neolithic cursus monument. These very long, narrow rectilinear enclosures are almost certainly ceremonial in character though their precise function and form is unclear. About nine are known within the Thames Valley. The Staines Cursus (No. 209) is exceptional both in its length and its width. It is associated with several other funerary and ceremonial monuments including other possible neolithic 'mortuary' enclosures and neolithic or bronze age ring ditches. Cursus monuments are notoriously difficult to interpret from direct physical traces and it has become increasingly clear that they can only be understood by investigating their environmental and cultural context.
- 5.20.2 In the case of the Staines (Stanwell) Cursus, its northern terminal has been destroyed by gravel extraction (O'Connell, 1986a). Recent comments received from English Heritage stated that a small part of the neolithic cursus may still survive between Accommodation Lane and the eastern side of the M25. The survival of cursus ditches here have been proven by Cotton (in O'Connell, 1990). Between the Bigley Ditch and the western side of the M25 a geotechnical trial pit has shown that the area has been quarried and landfilled. The importance of any remaining features is not known, but may be of county importance.

Mitigation

- 5.20.3 Consultations with English Heritage and the County Archaeologist would continue during the detailed design stage. Should ground disturbance be necessary an archaeologist would be on site to record any remains.

Impact

- 5.20.4 There is a possibility of disturbance to the existing ground during operations required to steepen the embankments. The Scheme therefore represents a slight risk to features which may survive within the highway boundary. These potential effects of the Scheme would be a minor impact on the cultural heritage.

5.21 Borrow Pits

- 5.21.1 The construction of the Scheme would require 40,000 m³ of soil and 230,000 m³ of aggregate or fill material. Due to construction constraints the location of borrow pits is unlikely to be within the highway boundary. There are several potential sources in the local area, and materials could also be brought in using existing or proposed rail depots. These are discussed in greater detail in the Planning, Land Use and Community Effects report (Volume 2, Report 6). Given the density of archaeological remains on the gravel terraces in the area and the high potential of alluvial areas, local borrow pits outside of the highway boundary could result in significant additional impacts on the archaeological record. Any local borrow pits chosen which are not contiguous with the highway boundary would be subject to local authority planning procedures, and it would be the responsibility of the Contractor to obtain planning permission.

6.0 SUMMARY

- 6.1** The area of the proposed Scheme has been subject to extensive studies to assess the existing cultural heritage interest. This has included desk studies, research and fieldwork. The Study Area is rich in archaeological and historical features ranging from neolithic ceremonial monuments and bronze age settlement remains to medieval houses and post medieval milestones. There is a Scheduled Ancient Monument of international importance adjacent to the M25 at Runnymede Bridge.
- 6.2** The assessment work has shown that there is little chance that any cultural heritage features of interest remain within the existing highway boundary. As the proposed widening would be entirely within the existing highway boundary there is only a small possibility of direct impacts on archaeological remains.
- 6.3** Consultations with English Heritage and the County Archaeologists would continue to ensure that cultural heritage matters are taken into account during the detailed design stage.
- 6.4** The drainage and pollution control requirements for the Scheme may have a slight direct effect on the Scheduled Ancient Monument at Runnymede Bridge. This would be an impact of moderate significance.
- 6.5** The scale of impacts on the Staines Cursus is not known, but is unlikely to be of more than minor significance.
- 6.6** The existing M25 already has severe indirect impacts on the built heritage due to noise and visual intrusion. The Scheme would bring the carriageway closer to some properties of historic importance and would marginally increase the degree of intrusion. The introduction of porous asphalt would reduce traffic noise experienced at all properties of historic interest. Impacts of minor significance would occur at West End Farm. Minor impacts would occur in the short term at Runnymede Cottages; these would be negligible in the long term.
- 6.7** The off-site mitigation works at Great Fosters would help to improve the setting of this building and garden providing agreement is reached with the landowner. Although in the short term these works represent a direct impact on the area of the registered park, in the long term the proposed mitigation would provide a moderate beneficial impact.

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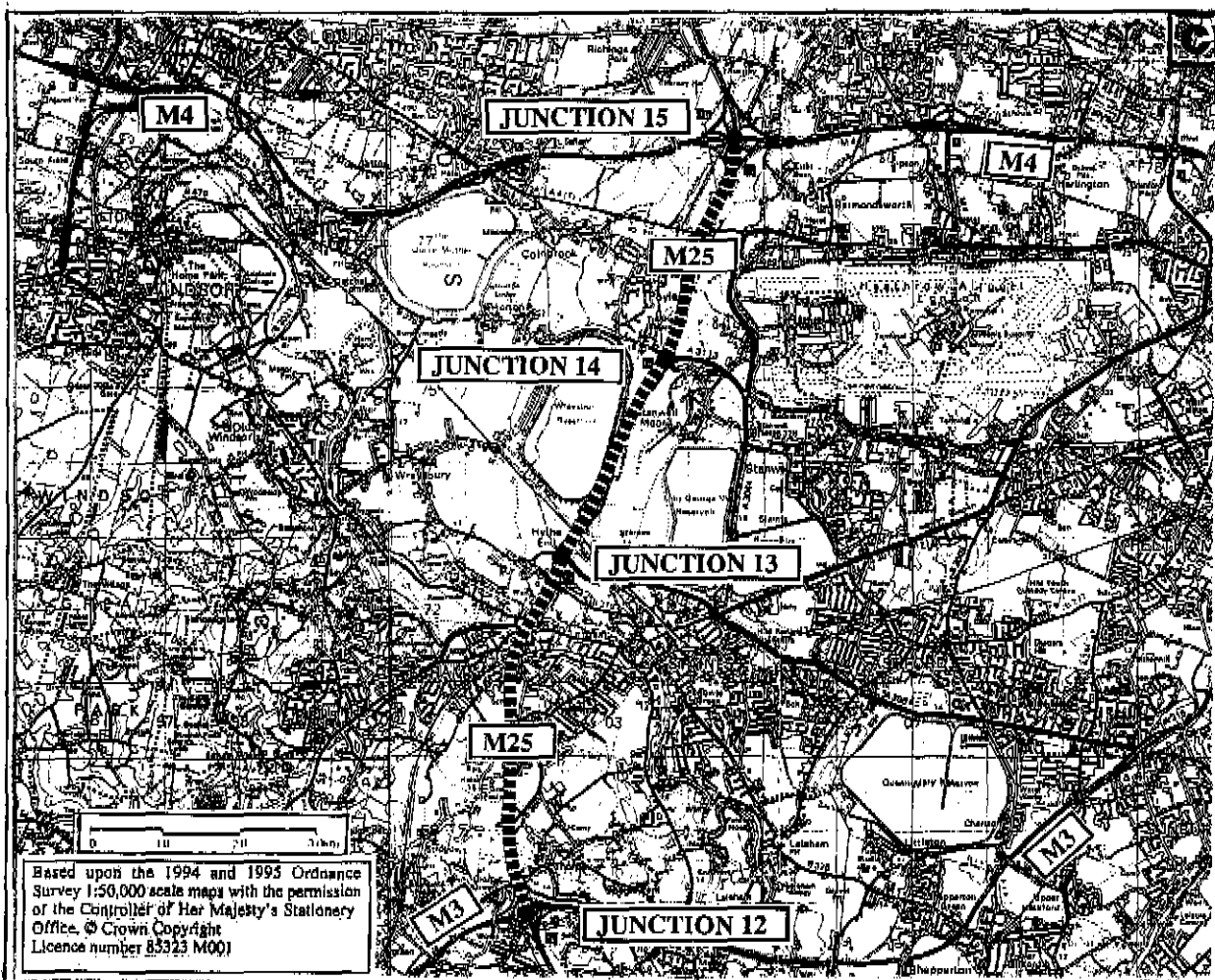
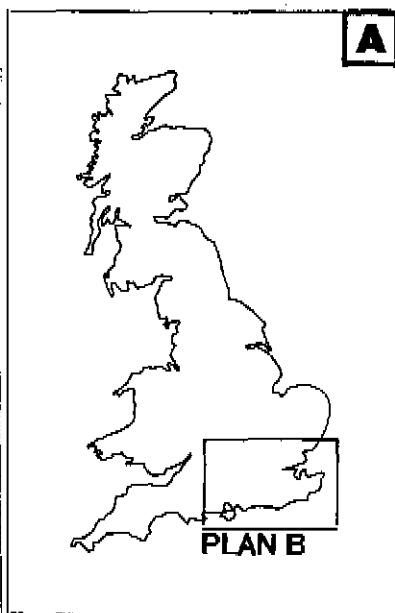
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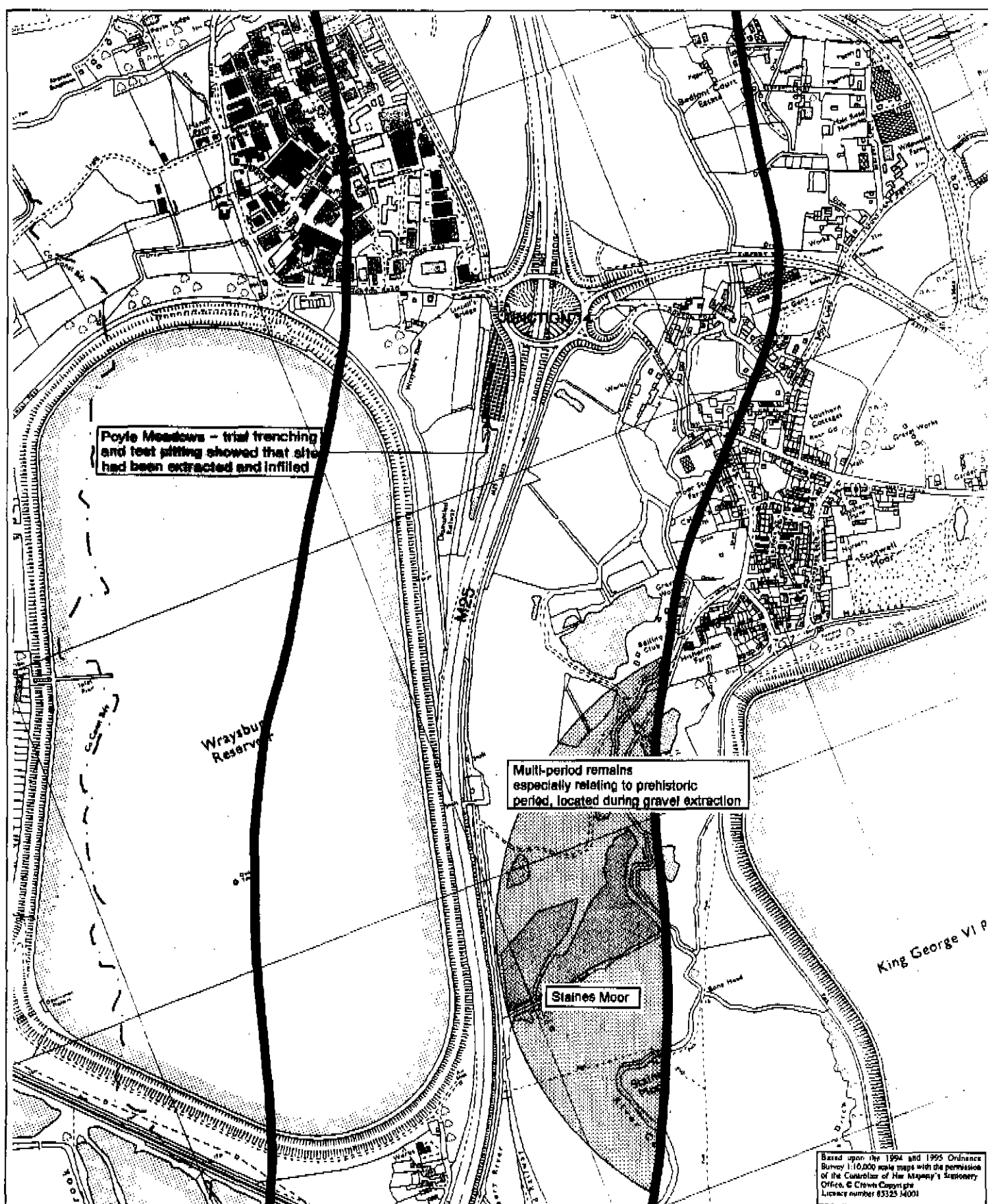
Parish Tithe Maps and Apportionments

Stanwell	1841
Staines	1843
Iver	1844
Wraysbury	1840
Egham	1841
Thorpe	1840



LOCATION PLAN

FIGURE 1



SUMMARY OF CULTURAL HERITAGE INTEREST

FIGURE 9

APPENDIX A

ARCHAEOLOGICAL REMAINS GAZETTEER

ARCHAEOLOGICAL REMAINS GAZETTEER

NB Numbers on Figures 3 - 6 relate to the gazetteer number.

Gazetteer numbers are a unique set of numbers assigned for the purposes of this study and are not necessarily consecutive. The majority of numbers were allocated in the preliminary study of 1991 and that sequence has been added to.

Abbreviations

Period

U	Undated	RB	Romano-British
PH	Prehistoric	AS	Anglo-Saxon
PA	Palaeolithic	M	Medieval
ME	Mesolithic	ML	Medieval or later
NE	Neolithic	PM	Post Medieval
BA	Bronze Age	MP	Multi period
IA	Iron Age		

Dates are specified if known. Estimated ages use the abbreviation for Period followed by '?'.
'C' specifies Century. All dates are AD unless otherwise stated.

ARCHAEOLOGICAL GAZETTEER

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
209	TQ 044/7770	Cropmark	Cursus	NE		Staines (Stanwell) Cursus, a ploughed-out linear earthwork 22 m wide, part excavated
210	TQ 044/776	Findspot	Hammer stone	PH		Undated hammer stone.
211	TQ 0405/7730	Cropmark	Enclosures	U		Large network of enclosures visible on aerial photograph, possibly mortuary.
214	TQ 044/767	Findspot	Pottery	ML	C16	Fragment of C16 skillet handle.
215	TQ 0452/7642	Earthwork	Possible Settlement	U		Earthwork with associated ditches and field system.
216	TQ 0330/7436	Cropmark	Ditch System	IA		Two enclosures, destroyed by gravel extraction
217	TQ 033/743	Findspot	Stone Axe	NE		Jadeite axe, well polished.
218	TQ 034/741	Cropmark	Settlement	NE		Late NE to EBA farmstead including a large midden, pits, postholes and a ditch.
219	TQ 0315/7412	Cropmark	Ditch Complex	U	BA?	System of linear and ring ditches partly destroyed by gravel extraction.
220	TQ 0277/7413	Site	Chapel	ML		Site of Ycoveney Chapel.
221	TQ 0320/7385	Site	Settlement	BA		Excavated BA settlement and IA enclosure.
222	TQ 0322/7378	Cropmark	Ring Ditches	U	BA?	Series of ring ditches visible on aerial photos. Possibly destroyed by extraction.
223	TQ 032/737	Site	Buildings	M		Site of M structures now destroyed by gravel extraction.
225	TQ 0308/7346	Cropmark	Ring Ditch	U	BA?	Circular ditch visible on aerial photograph.

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
227	TQ 0311/7316	Cropmarks	Ring Ditches	U	BA?	Several circular ditches visible on aerial photos.
228	TQ 0220/7323	Cropmarks	Ditch Complex	PH		Ring & parallel linear ditches partly destroyed.
229	TQ 0240/7260	Site	Causewayed Enclosure	NE		Enclosure incl. inhumation pottery & worked flint, also mesolithic material.
230	TQ 0240/7260	Site	Occupation	BA		Beaker period occupation material found at causewayed enclosure.
231	TQ 0240/7260	Site	Occupation	RB	CI	RB occupation layer overlying causewayed enclosure.
234	TQ 0243/7232	Findspot	Stone Axe	NE		Stone axe.
235	TQ 016/7216	Findspot	Sword	BA		Late BA sword recovered from dredging.
236	TQ 0177/7205	Findspot	Stone Axe	NE		Stone axe recovered from dredging in Thames.
237	TQ 0191/7195	Findspot	Knife	BA		Bronze knife recovered from dredging in Thames.
238	TQ 018/719	Site	Settlement	MP		Runnymede Bridge: BA waterlogged riverside village (SAM 200). Site extends under bridge embankment into field to east.
239	TQ 0190/7185	Findspot	Occupation	NE		Site known from finds (pottery, worked flint, bone implements) & IA finds. It is an area of significant archaeology.
240	TQ 0181/7171	Site	Roadway	RB		Section of road found during drainage trench digging.
241	TQ 0069/7169	Linear Feature	Road	M	1216	Egham Causeway: constructed 1216- 72 by Thomas de Oxenford, see no. 245.

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
242	TQ 0163/7156	Site	Occupation	MP		Unigate Dairies (Petters Sports Field): NE/BA/RB/AS/PM occupation. It is an area of significant archaeology.
243	TQ 0163/7156	Site	Ditch	AS		Late AS ditch containing potsherds. It is an area of significant archaeology.
245	TQ 001/702	Linear Feature	Road	M	RB?	The Causeway: possible RB roadway, in use during M time, see no. 241.
246	TQ 0163/7156	Site	Occupation	BA		Unigate Dairies : Hut circles & debris in enclosure ditch.
247	TQ 0163/7156	Site	Ditch Complex	RB		Unigate Dairies: Parallel enclosure ditches & roadside ditch.
248	TQ 0163/7156	Site	Occupation	PM		Unigate Dairies: pits and postholes.
249	TQ 0163/7156	Site	Enclosure	M	C12	Part of enclosure containing C12 pottery & bone.
250	TQ 0164/7145	Site	Ditch	RB?		Possible ditch discovered during motorway construction.
251	TQ 015/714	Findspot	Pottery	RB		Daisy Meadow: sherd found on trail.
252	TQ 0162/7138	Findspot	Worked flint	PH		Several flint flakes.
253	TQ 0173/7130	Site	Pits	M		Several M pits. Exact location unknown.
254	TQ 011/713	Findspot	Nail	M		Hand-forged iron nail.
255	TQ 011/713	Findspot	Architectural Fragmt	RB		Probable end portion of sandstone threshold step.
256	TQ 015/712	Site	Farmstead	RB	C1-C4	Farmstead. Sherds AD 60-170. C3 quern. C4 coin. Tile, cattle bones.

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
257	TQ 017/712	Findspot	Axe	BA		Late BA socketed axe.
258	TQ 0176/7116	Site	Moat and Wells	M /PM		Irregular ditch, possible moat. 2 C18 brick lined wells.
259	TQ 0153/7078	Findspot	Worked Flints	PH		Scatter of flint flakes & burnt flint found after topsoil stripping.
260	TQ 0166/7014	Linear Feature	Road	U		Traces of possible road found during sewer digging. Not shown on 1st ed OS 1" map.
261	TQ 0160/7027	Site	Moat	U	M?	Thorpe Lea House: ditch on W side of house. Possible moat.
262	TQ 016/700	Site	Occupation	BA		Area of middle and late BA features, pottery & bones.
263	TQ 0163/6955	Site	Pit Complex	PM		PM pit bases found after topsoil stripping.
264	TQ 016/698	Site	Settlement	IA		Area of features producing artefacts of early, middle and late IA.
265	TQ 016/698	Site	Occupation	RB	C1-C2	Area of early RB material.
266	TQ 0190/6980	Cropmark	Ditch Complex	BA?		Circular, linear and rectangular enclosure.
267	TQ 0195/6975	Cropmark	Ditch Complex	BA?		Circular and linear ditches. Possible BA settlement.
268	TQ 015/688	Site	Settlement	BA		Muckhatch Farm: Ring ditch, pottery and bone. Destroyed by gravel extr.
269	TQ 017/686	Site	Occupation	BA		Hearth of burnt flint and pits containing BA pottery. Found during Thorpe Bypass constr.
270	TQ 016/685	Findspot	Artefacts	BA		BA finds recovered. Exact location unknown.

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
271	TQ 016/685	Site	Ditch Complex	BA?		Series of ditches seen in motorway cutting. No artefacts. Exact location unknown.
272	TQ 02/68	Findspot	Axe	BA		Early BA flanged axe. Exact location unknown.
279	TQ 018/699	Site	Settlement	ML		Hall Aggregates (Thorpe Lea Nurseries): BA, IA & RB occupation evidence.
280	TQ 020/724	Findspot	Pottery	PH		Miscellaneous find of sherd.
281	TQ 020/723	Site	Pits & Artefacts	PH		Possible pit with worked flint & burnt flint, pottery & charcoal.
282	TQ 0157/7167	Occupation	Layers & features	PM		C18 & C19 layers & features, now built over.
283	TQ 0132/7141	Site	Pits & ditches	ML		C19 & C17 remains overlying PH ground surface & ditch with LBA pottery.
284	TQ 02/68	Findspot	Axe	PH		Polished stone axe made of tuff.
285	TQ 0145/7145	Site	Moat?	PM?		Broad ditch or moat. On 1841 tithe map as water-filled ditch & on a sales catalogue as moat or channel.
286	TQ 018/717	Site	Ditch	PH		Possible IA field boundaries found during construction.
287	TQ 0315/7520	Site	Enclosure	PH		Sub-rectangular enclosure & ring ditch, now under reservoir.
288	TQ 0410/7540	Site	Enclosures	PH?		Complex of rectangular enclosures, ditches, pits & ring ditches.
289	TQ 0135/6968	Findspot	Axe	NE		Polished axe reported found in soil cleared from moat.

Gazetteer No.	Grid Ref	Form	Type	Period	Date	Description
290	TQ 0268/7213	Site	Enclosure	BA		Church Lammas. Rectangular ditched enclosure. Possibly used for funerary purposes.
291	TQ 040/767	Linear Feature	Road	PM		Great West Road from London to Bath.
292	TQ 0332/7500	Linear Feature	Railway	PM	C19	Staines branch of the Great Western Railway.
293	TQ 050/775	Site	-	NE/BA		Excavations at Prospect Park have revealed a Late Neolithic settlement, a Late BA agricultural activity and undated ditches.

APPENDIX B

BUILT HERITAGE GAZETTEER

BUILT HERITAGE GAZETTEER

NB Numbers on Figures 3 - 6 relate to the gazetteer number.

Listed buildings within a Conservation Area are not numbered and therefore do not appear in the gazetteer.

Gazetteer numbers are a unique set of numbers assigned for the purposes of this study and are not necessarily consecutive. The majority of numbers were allocated in the preliminary study of 1991 and that sequence has been added to.

HISTORIC STRUCTURES GAZETTEER

Gazetteer No.	Grid Ref	Parish	Type	Date	Description	Status
4	TQ 0418/7669	Colnbrook	Milestone	C18	Milestone at Madbridge, Bath Road, Colnbrook. Inscribed: "XVI miles from Hyde Park Corner, 1741" Also C19 inscription: "London 16 Miles".	II
6	TQ 0399/7483	Stanwell	House	C17	The Croft, 281 Hithermoor Road, Stanwell. Brick built, late C17 with C18 remodelling. Hipped tiled roof. Reused timbers in queen post roof.	II
10	TQ 0170/7178	Egham	Lodge	1930-2	Pair of lodges by Lutyens, A30/A308 roundabout, Windsor Road. Red brick, eaves courses, quoins and plinth to cill level. Single storey, octagonal plan.	II
11	TQ 0170/7178	Egham	Stone Urns	1929	Pair of commemorative stone urns by Lutyens, stone block on plinth, design relates to lodges (10). On roundabout A30/A308, Windsor Road.	II
22	TQ 0158/7015	Thorpe	Cottage	C17	Homestead Cottage, Clockhouse Lane West, Thorpe. Brick front, red tiled roof, two floors, central chimney.	II
23	TQ 0146/7015	Thorpe	House	C17	Goose Green House, Clockhouse Lane West. Tile hung first floor, painted and rendered gable ends, exposed timber frame. Rectangular plan.	II
24	TQ0130/6965	Egham	House	C16	Great Fosters, Stoude Road, now a hotel, built 1550-1600. Red brick, stone dressing. Three storeys. Octagonal buttressed towers. E & W wings.	I
25	TQ0128/6964	Egham	Barn	C17	Great Fosters Barn, now banqueting hall, timber framed, brick clad in herringbone. 2 storey entrance, 5 bays with strutted queen post trusses, aisles.	II

Gazetteer No.	Grid Ref	Parish	Type	Date	Description	Status
26	TQ 0124/6965	Egham	Residential Block	C16	Great Fosters, Stroude Road, red brick, white painted infill panels, 3 chimney stacks.	II
28	TQ 0185/6873	Thorpe	Cottage	C16	Orchard Cottage, Rosemary Lane. Timber framed, now pebbledashed. Tiled roof, C17 brick stack, C19 casement windows.	II
29	TQ 0183/6868	Thorpe	Cottages	C16	"Chimneys", Rosemary Lane formerly three timber framed cottages now encased in brickwork. T-shaped plan. 2 millstones in garden.	II
30	TQ 0185/6854	Thorpe	House	C18	Hazle Wood, Rosemary Lane. Red Flemish-bond brickwork with blue headers, pitched tile roof, central door flanked original sash windows in brick arches.	II
33	TQ 0256/7267	Staines	Lodge	C19	Yeoveney Manor Lodge, early C19, 2 storeys, north and south wing coach house and pineapple capped gate piers.	II
34	TQ 0269/7265	Staines	Cottage	? C17	Moor Cottage. Plain rendered 2 storey cottage with half hipped old tile roof.	II
35	TQ 0134/6988	Egham	Memorial Stone	1850	Memorial stone for supposed site of a Roman road.	II
36	TQ 0166/6884	Egham	Farm	C16	West End Farm, late C16, altered in C19. Exposed timber-frame of square panels.	II
37	TQ 026/733	Staines	Terrace	C19/20	Runnymede Cottages nos. 1-4	-
38	TQ 0418/7669	Colnbrook	Bridge	C19	Mad Bridge: red brick road bridge, single arch.	-
39	TQ 0366/7698	Colnbrook	Coal Tax Post	1861	Coal and wire tax post no. 76 made by H Grissel of metal. One of a series which marked the boundary where duty was payable.	II

APPENDIX C

HISTORIC LANDSCAPE GAZETTEER

HISTORIC LANDSCAPE GAZETTEER

NB Numbers on Figures 3 - 6 relate to the gazetteer number.

Gazetteer numbers are a unique set of numbers assigned for the purposes of this study and are not necessarily consecutive. All numbers were allocated in the preliminary study of 1991.

HISTORIC LANDSCAPE GAZETTEER

Gazetteer No	Grid Ref	Type	Date	Description	Status
401	TQ 0210/7194	Woodland		Woodland on the bank of the Thames shown on 1st ed OS 1" map.	
404	TQ 014/692	Woodland		Woodland shown on 1st ed OS 1" map.	
405	TQ 012/681	Green		Thorpe Green: shown unchanged and with same name on 1st ed OS 1" map.	Common
447	TQ 014/698	Garden	C18	Garden of Great Fosters (no. 24)	RPG
449	TQ 007/721	Common		Runnymede Meadow, where King John and the barons supposedly camped during the signing of the Magna Carta.	Common
450	TQ 03/73	Common		Staines Moor.	SSSI & Common
451	TQ 027/725	Common		Church Lammas.	Common

APPENDIX D

THE INFLUENCE OF GEOLOGY AND LANDFORM ON EARLY SETTLEMENT

THE INFLUENCE OF GEOLOGY AND LANDFORM ON EARLY SETTLEMENT

- 1 The study area is predominantly flat with little significant variation in height; the ground ranges between about 5 m and 15 m Above Ordnance Datum (AOD). The landscape has been extensively disturbed by gravel extraction, the construction of reservoirs and the M25, M3 and M4 and by the rapid expansion of settlements such as Egham and Poyle.
- 2 The underlying geology of the study area is London Clay and lies within the flood plains of the River Thames (from Junction 12 to Junction 13) and the River Colne (from Junction 13 to Junction 15). These rivers and their tributaries lie on the river terrace gravel over which there are extensive tracts of alluvium (deposits of fine fertile soil left during river flooding). Information obtained from borehole reports carried out for the original construction of the M25 indicates that alluvium is more widely spread than is indicated on the British Geological Survey Windsor: sheet 296 (1:50,000, 1981).
- 3 The natural topography and the sedimentary history of the Thames flood plain has influenced the human exploitation of the land. Areas close to the river and its tributaries, which were favoured for settlement activity in prehistoric times became wetter due to changes in hydrology and have been covered with alluvial silt. This made them much less attractive for settlement from the Roman and medieval periods onwards.
- 4 The detailed pattern of early settlement and land use is not entirely clear, but the following broad patterns of development can be seen. In the mesolithic period (c. 8000 to 4400 BC) there is evidence for domestic and other activity from beneath alluvial clays and peats in the Colne Valley at Uxbridge and at Runnymede Bridge on the Thames. At Runnymede *in situ* middle neolithic occupation has also been investigated in deposits deeply buried beneath the present ground surface.
- 5 Other investigations on the gravels in the area suggest that some neolithic and bronze age ceremonial monuments and domestic activity occupied slightly higher, drier ground within the flood plain, or the adjacent gravel terraces. This general pattern continued throughout the bronze age. In the late bronze age (c. 900 to 750 BC), the two most important sites known in the area were at Runnymede and Egham, the first on an island within the river and the other at the edge of the adjacent terrace. From the middle to late bronze age and into the iron age there is increasing evidence of farms and fields on the surrounding gravel terraces where the light soils were relatively attractive for cultivation.

- 6 There is less evidence of Roman settlement on the flood plain of the Thames and its tributaries. This probably reflects further rises in water levels and alluvial deposition making the area less attractive for settlement compared with the gravel terraces, where most of the settlement evidence from the iron age and Roman period has been found.

- 7 Relatively little is known of the pattern of early Anglo-Saxon settlement and land use although extensive remains have recently been discovered at Prospect Park by Junction 15. The pattern at the end of the Anglo-Saxon period is recorded in Domesday Book (the survey completed in AD 1086 describing who held land of the King and the dues they owed) while later maps and written sources give evidence of the later medieval period. The low-lying flood plains were devoted to pasture or hay meadow, often held as common. This practice survives to the present day, at Staines Moor. Arable fields were largely on the better drained gravel terraces. The open fields of Thorpe, for example, are shown on late eighteenth and nineteenth century maps.

- 8 The medieval and later settlement pattern was a mixture of nucleated villages often on the edge of the gravel terraces, as at Egham, and a more dispersed pattern of hamlets. There were also a number of outlying farms and estates associated with large houses, such as Great Fosters. These were largely confined to the gravel terraces, but were occasionally present on better drained islands of slightly higher ground within the flood plain.

- 9 Little is known of prehistoric communication routes in the area although the River Thames certainly played an important part. There was an important Roman and later road crossing of the river at Staines, which is the site of a significant Roman settlement. While most roads kept to the drier gravel terraces, the Egham Causeway is an example of a road crossing low lying ground on built-up embankments. There have been several phases of road improvements in the area, illustrated by the turnpiking (mainly eighteenth century acts of Parliament which gave a turnpike trust the right to collect a toll in return for maintaining the road) of the A4, its subsequent improvement, and by the creation of the Colnbrook Bypass in the 1920s.

APPENDIX E

HISTORICAL DEVELOPMENT OF THE STUDY AREA

HISTORICAL DEVELOPMENT OF THE STUDY AREA

1 INTRODUCTION

- 1.1** Numerous archaeological sites are known within the study area from a combination of air photograph interpretation, chance finds, and fieldwork, including surveys and excavations carried out before and during construction of the M25 in the 1970s and in advance of gravel extraction. These are identified in Figures 3 to 6. Field evaluation undertaken for the Link Roads scheme has also revealed new sites and clarified the extent and survival of known ones. The location of sites evaluated are identified on Figures 7 to 10.

2 PALAEO-ENVIRONMENTAL DEPOSITS AND POTENTIAL

- 2.1** Palaeo-environmental work (the study of the past environment) at Uxbridge further up the Colne Valley, at Runnymede Bridge on the Thames, and general analysis of the late glacial and Flandrian sedimentary deposits of the Lower Colne Valley, indicates that there was a complex and as yet poorly understood sequence of channel development and alluviation. It is apparent that much flood alluvium is late prehistoric and later, but some sequences, especially at Runnymede, indicate that deposition is particularly variable and complex. Results from various sites, such as further north in the Colne Valley at Uxbridge, have also demonstrated frequent survival of peat and other waterlogged deposits, of mesolithic and later date (Lewis *et al*, 1992).

3 THE PALAEO-LITHIC AND MESOLITHIC PERIODS

- 3.1** Evidence for upper palaeolithic activity has recently been recorded at a gravel pit at Church Lammas (just to the east of Junction 13), although there is no evidence within the study area. The mesolithic period (meaning middle stone age) dates broadly from 8000 BC to 4400 BC. Mesolithic flint-work has been recorded from the site of a neolithic causewayed enclosure (No. 229, Figure 4) at Yeoveney Lodge close to Junction 14. Work in connection with Heathrow Airport Terminal 5 to the east of the study area has discovered a mesolithic flint assemblage, but no mesolithic features were located. Remains of occupation were also discovered during the excavation of the Runnymede site (Nos. 238-9, Figure 4).

4 THE NEOLITHIC PERIOD

- 4.1** This period (dating from about 4400 BC to 2500 BC) saw the first evidence of the beginnings of agriculture. The people of this age occasionally built monuments on a large scale. Significant neolithic (new stone age) remains were discovered at Runnymede (Nos. 238-9) during the construction of the A30 road bridge and the M25 (Figure 4). A causewayed enclosure at Yeoveney Lodge (No. 229, Figure 3) was partially excavated between 1961 and 1963. Causewayed enclosures have been interpreted as having a variety of functions including central meeting places, settlements, ceremonial and mortuary sites. Artefacts recovered included pottery, animal bones and some fragments of human bones.
- 4.2** Just to the south of Junction 15 was another, probably later neolithic ceremonial site, the Staines (or Stanwell) Cursus (No. 209, Figure 6). This was a long, straight rectangular enclosure or ceremonial way, over 3.5 km long and 22 m wide. Cropmark evidence suggests the existence of other ceremonial monuments dating to the neolithic, including possible mortuary enclosures (No. 211, Figure 6) associated with the Cursus (O'Connell, 1986a). Excavations at Prospect Park near Junction 15 and at Heathrow Airport have revealed further evidence of neolithic activity.

5 THE BRONZE AGE

- 5.1** There are a number of significant bronze age remains along the length of the study area. The bronze age period dates broadly from 2500 to 750 BC. A series of bronze age finds and a probable occupation site are recorded from gravel workings and the M25 construction just to the north of Junction 12 near Thorpe (Nos. 267-71, Figure 3). A farmstead inside an enclosure was excavated at Muckhatch Farm (No. 268) where Longside Lake now is).
- 5.2** A late bronze age site which has produced considerable quantities of domestic occupation material and a major hoard of bronze axes and other equipment, was discovered at the Unigate Dairies site (previously called Petters Sports Field, nos. 242-3 and 246-7, Figure 4) immediately adjacent to the present boundaries of the M25 where it passes through Egham. An island in the river has produced further material of this date (Runnymede, Nos. 238-9).
- 5.3** The River Thames in prehistoric times, most notably in the mid to late bronze age, had a 'religious' use. Large amounts of bronze metalwork, especially weaponry, were deliberately destroyed and thrown into the river as an offering to the gods. Several finds have been dredged out of the river including a late bronze age sword (Nos. 235-6, Figure 4).

5.4 The course of the River Thames has changed over the last few millennia and during the prehistoric period there was an island at Runnymede which is now marked by a southward loop in the old county boundary between Surrey and Berkshire. Within this loop there was extensive prehistoric settlement (Nos. 238-9, Figures 4, 7 and 8). There is evidence of mesolithic, neolithic and early bronze age occupation, but the site was most intensively used in the late bronze age. A succession of timber riverside revetments, possibly surmounted by a defensive barrier, was constructed during this period (Needham, 1987). There was little or no later occupation but there is some evidence of Anglo-Saxon activity. The Runnymede site is one of three known examples in the Thames Valley of late bronze age settlements occupying sites of this kind.

5.5 To the north of the Thames within the study area there is little known evidence of this period, despite the impressive evidence of late bronze age activity at Egham and Runnymede Bridge. Sites include No. 221 (Figure 5) north of Staines Moor and at Yeoveney Lodge (No. 229, Figure 4) (Robertson-Mackay, 1987). A site to the south-east at Church Lammas (No. 290, Figure 6) comprising an enclosure and possible field system has been located (Hayman, 1990). The excavations of the Staines Cursus (No. 209, Figure 6) revealed a late bronze age settlement and field system overlying the neolithic monument. Other evidence from this period has been found at sites nos. 218, 225 and 227 (Figure 5).

6 THE IRON AGE

6.1 There are a few iron age remains recorded within the study area. This period dates from approximately 800 BC to AD 43, the Roman invasion. An iron age settlement has been excavated on the western side of the M25 (No. 264, Figure 3) producing artefacts of early, middle and late iron age date. Two iron age enclosures (No. 216, Figure 5) have been recorded to the north of Lower Mill Farm. The Hall Aggregates site (Nos. 266-7 and 279, Figure 3 - previously Thorpe Lea Nurseries) has produced an iron age and Romano-British settlement.

7 THE ROMANO-BRITISH PERIOD

7.1 The main route from London to Silchester and the west crossed the Thames at Staines (the Roman name for Staines was *Pontibus* indicating a bridge and possibly two), below the confluence of the River Colne and River Thames. From there, the road continued through Egham possibly down the High Street towards Sunningdale. The projected course of this Roman road (No. 245, Figure 4) has been recorded at the north end of Egham along the line of The Causeway, but there is no firm evidence that the Roman road was the predecessor of the thirteenth century road.

- 7.2 Romano-British activity is also known from work at Unigate Dairies and adjacent sites where the proposed scheme runs through Egham (No. 256, Figure 4). At Yeoveney Lodge (No. 231, Figure 4) an enclosure and part of a field system were found.

8 THE MEDIEVAL PERIOD

- 8.1 Anglo-Saxon activity forms the early part of the medieval period and dates from between the early fifth century AD to the Norman Conquest in 1066. The later medieval period covers from 1066 to the beginning of the sixteenth century. The name 'Egham' was first recorded in 675, as was Thorpe. The place-name Egham (meaning *Ecga's ham*) indicates early settlement. The name has also been interpreted as a settlement on low-lying ground, 'land in a river bend' or 'a river meadow' (Dodgson, 1973).
- 8.2 An Anglo-Saxon waterfront may have existed at Runnymede. Timbers were retrieved during the 1978 construction of the Runnymede Bridge which were dated to the Anglo-Saxon period (Ambers *et al*, 1989, 17). This could indicate the continuing importance of river trade. Evidence of Anglo-Saxon occupation was also discovered at around Unigate Dairies (Nos. 242-3) which included ditches and pottery, although it was of a limited extent. At Prospect Park adjacent to Junction 15, recent excavations have revealed aisled structures and sunken featured buildings indicating a settlement of some significance.
- 8.3 Within Egham, medieval pits have been observed close to where Vicarage Road crosses the railway (No. 253, Figure 4). A possible moated site was also recorded nearby in Vicarage Road (No. 258). This is one of three possible moated sites close to the M25 between Thorpe and Egham. A ditch possibly representing a moat (No. 261) associated with the site of Thorpe Lea House was recorded during construction of the M25 to the south of New Wickham Lane.
- 8.4 One of the three examples is the medieval moat at Great Fosters, situated within the formal (grade II*) gardens of the grade I Jacobean and later mansion (nos. 24-6 and 447, Figures 3 and 11). The tithe map shows the mansion and a 'park plantation' in 1841. Great Fosters is an outstanding historic building close to the scheme and although heavily restored in the early part of this century, remains an extremely imposing building. The gardens date from the first decades of this century and include a double lime avenue, which was severed by the construction of the existing motorway. The field pattern and road network around Great Fosters retains the best survival of pre-twentieth century historic landscape features close to the M25.

- 8.5 At the end of Clockhouse Lane West is Homestead Cottage (No. 22, Figure 3). The house was associated with Thorpe Lea, an outlying hamlet at the north end of Thorpe. Homestead Cottage is a fourteenth or fifteenth century timber-framed house and is a good example of a late medieval house characteristic of the area of which few now survive.
- 8.6 At Egham, The Causeway, running parallel to the river from the crossing at Staines was constructed by a wool merchant, Thomas de Oxenford and dates from between 1216 and 1272 (No. 241, Figure 4).
- 8.7 Magna Carta Island lies outside the study area, and is the presumed site of the signing of Magna Carta in 1215. Runnymede Meadow (No. 449, Figure 3) is where King John and his barons are reported to have camped (Surrey County Council, Sites and Monuments Record). It is common land and is owned by the National Trust. The name Runnymede first occurs as *Runingmed* in the Magna Carta, and means council and meadow: 'The name suggests that the mead [meadow] had been the scene of earlier unrecorded assemblies from which it had already earned this significant description' (Gover *et al* 1934, 124).
- 8.8 To the north of the Thames, the Yeoveney Lodge site (Nos. 229-31, Figure 3) also produced some Anglo-Saxon and medieval material including pottery, but in general little is known of Anglo-Saxon occupation to the north of the River Thames. Other features from the Medieval period have been identified at site nos. 6, 220 and 223 (Figure 5).

9 THE POST-MEDIEVAL LANDSCAPE

- 9.1 By comparing eighteenth and nineteenth century maps with modern maps, it can be seen that the landscape of the study area has altered dramatically in the past 200 years. The present road network and field pattern were established by the mid eighteenth century, as were the centres of habitation.
- 9.2 The pattern of field boundaries around Thorpe village has generally been incorporated into the building pattern, but many boundaries have been removed as a result of gravel extraction. West End Farm (No. 36), a late sixteenth century building survives on the edge of the village. Thorpe Green (No. 405) survives in the same shape as that shown on Rocque's map of 1762 (Figure 12).
- 9.3 An examination of Rocque's map (Figure 12) and the tithe map (1841) show that the land use character of the parish of Egham has altered substantially. The landscape of mixed arable and pasture land arranged around villages and manorial buildings has been swamped by later development, and most of the field boundaries have been removed. A few remain preserved

in the land ownership patterns within the built up area and some drainage ditches follow the old lines.

- 9.4 Large areas of common land existed along the scheme where locals had the right to pasture animals. In 1813-14 an act of Parliament enclosed commons at Egham and Runnymede.
- 9.5 To the north of the River Thames, much of the landscape has been altered by the extraction of gravel. Rocque's map shows the extent of Staines Moor (No. 450, Figure 5), a large tract of which survives today.
- 9.6 On the tithe map field names such as 'The Moor Piece', 'Abbeys Moor Picce', and 'Allotment on the Moor', indicate the nineteenth century enclosure of the moorland.
- 9.7 To the north of Junction 14 the scheme bisects fields that are listed in the tithe apportionment as 'Black grounds', 'Black ground meadow' and 'Blacken Grove'. These field-names could indicate possible early industrial activity, but it is more likely, given the proximity of the area to existing or recent moorland (such as Longfordmoor), that this is a description of land that has been cleared by burning and subsequently cultivated.
- 9.8 Within the parish of Iver, on the western edge of the scheme, there appear to be no remnants of the landscape as depicted on the tithe map (1844), apart from a length of Colne Brook. No field boundaries remain from the open arable/pasture landscape shown on the tithe map.

10 EIGHTEENTH TO TWENTIETH CENTURY DEVELOPMENT

- 10.1 The study area was crossed by various improved communication routes in the later eighteenth and nineteenth centuries including the Great West Road which runs through Longford, Poyle and Colnbrook (No. 291, Figure 6). It is marked by an eighteenth century milestone at Mad Bridge (Nos. 4 and 38, Figure 6) immediately to the east of the route. The M25 also crosses the Windsor to Staines branch of the former South Western and Southern Railways and follows a dismantled section of the Uxbridge to Staines branch of the Great Western Railway (No. 292, Figures 4 and 5) which was closed in 1965.
- 10.2 In more recent times there has been some commercial and residential development. The most significant have been the building of the major reservoirs (The Wraysbury and King George VI Reservoirs, Figure 5), the growth of Heathrow Airport and the very extensive gravel quarrying and waste disposal activities. The combined effects of these operations have left very little undisturbed land either side of the existing M25, except alongside Staines Moor and the area around Great Fosters.

- 10.3** Runnymede Meadow (No. 449, Figure 4) is a common which has survived encroachment by modern development. The meadow's eastern end is marked by a pair of grade II Listed lodges by Lutyens (No. 10). These lodges are matched by a pair at the far end of the meadow at Windsor. Lutyens also designed the present A30 bridge over the Thames which was built after his death.

11 OVERALL SUMMARY

- 11.1** The study area to the south of the River Thames has clear potential for the occurrence of neolithic, but more particularly bronze age to Roman sites. It also contains the only major historic building and designed landscape potentially indirectly affected by the scheme: Great Fosters. The Thames itself is an important area because of the outstanding archaeological material at Runnymede Bridge. To the north of the River Thames the study area is characterised by the very high archaeological potential for neolithic and later archaeology in areas near to the M25.

APPENDIX F

GLOSSARY

GLOSSARY

Alluvium:	A deposit of usually fine fertile soil left during a time of flood especially in a river valley or delta.
Anglo-Saxon period:	Usually taken to have started at the end of Roman authority in Britain in AD 410 to AD 1066 when William I invaded.
Bronze Age:	A period ranging broadly from 2300 BC to 700 BC.
Colluvium:	Hill-wash; a weak or non-stratified deposit that has accumulated by slope wash or down-slope creep. Such deposits are most evident on lower hill and valley slopes and in valley bottoms.
Cropmarks/soil marks:	Features caused by differences in the growth of crops and sometimes visible in soil due to variations in colour, reflecting subsurface features. Usually identified through aerial photography.
Curtilage:	The yard and outbuildings of a house; its immediate vicinity.
Domesday Book:	Domesday Survey was carried out for William I of his newly conquered country to register all taxable holdings. The Book of the Survey was completed in AD 1086.
Enclosed/Enclosure:	The act of 'fencing' land, especially common land to make it into private property or define its status/use.
Jacobethan:	The 1820s Elizabethan and Jacobean Revivals are often indistinguishable, hence this term.
Mesolithic period:	The middle stone age period (10000 BC to 4300 BC), when humans were hunter/gatherers and left few traces of habitation on the landscape.
Neolithic period:	The new stone age period (4300 BC to 2300 BC) when agriculture began as humans became more settled.
Palaeo:	Old, of ancient times.

Appendix F, Page 2

Palaeolithic: The old stone age.

Roman period: In Britain this is usually taken to be the period from the Claudian Invasion in AD 43 to AD 410, Britain's break with Rome.

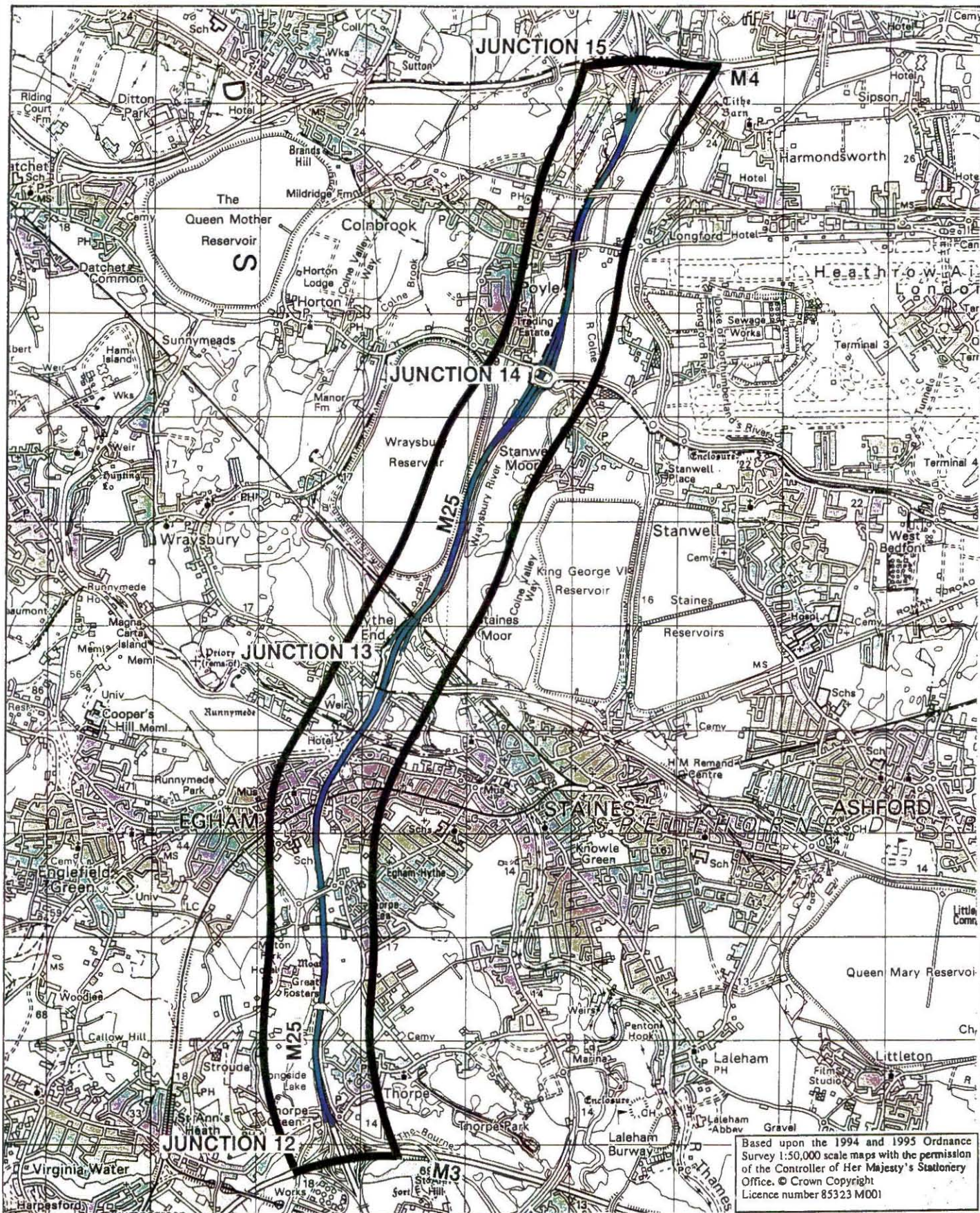
Tithe: A tax, theoretically a tenth of the income which went to the church.

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B15 1BL

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Route of M25



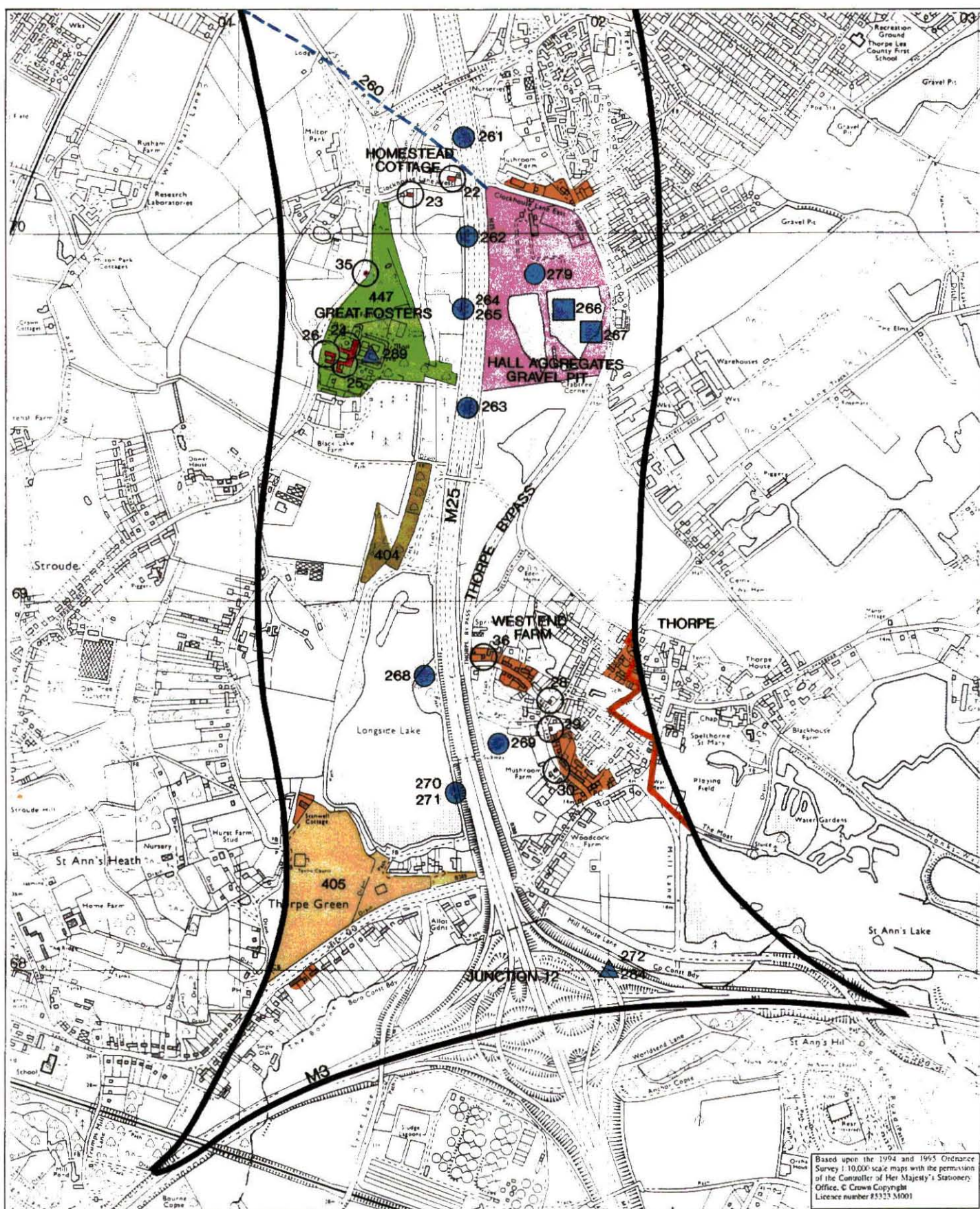
Study area boundary

0 1.0 2.0 3.0km

STUDY AREA



FIGURE 2



KNOWN CULTURAL HERITAGE FEATURES

FIGURE 3

Numbers refer to Appendices A-C



- Scheduled Ancient Monument
- Archaeologically Significant Area
- Area of Cropmarks
- Earthwork
- Findspot
- Site of Other Record
- Linear Feature
- Linear Feature—Projected

- National Trust Land
- Conservation Area
- Historic Structure
- Historic Area
- Registered Garden
- Woodland 1st Ed OS
- Registered Common
- Extent of Study Area

0 100 250 500m

KNOWN CULTURAL HERITAGE FEATURES

FIGURE 4

Numbers refer to Appendices A—C

Based upon the 1994 and 1995 Ordnance Survey 1:10,000 scale maps with the permission of the Controller of Her Majesty's Stationery Office, & Crown Copyright Licence number 85323 M001

J15
J14
J13
J12



- Scheduled Ancient Monument
- Archaeologically Significant Area
- Area of Cropmarks
- Earthwork
- Findspot
- Site of Other Record
- Linear Feature
- Linear Feature-Projected

- National Trust Land
- Conservation Area
- Historic Structure
- Historic Area
- Registered Garden
- Woodland 1st Ed OS
- Registered Common
- Extent of Study Area

0 100 250 500m

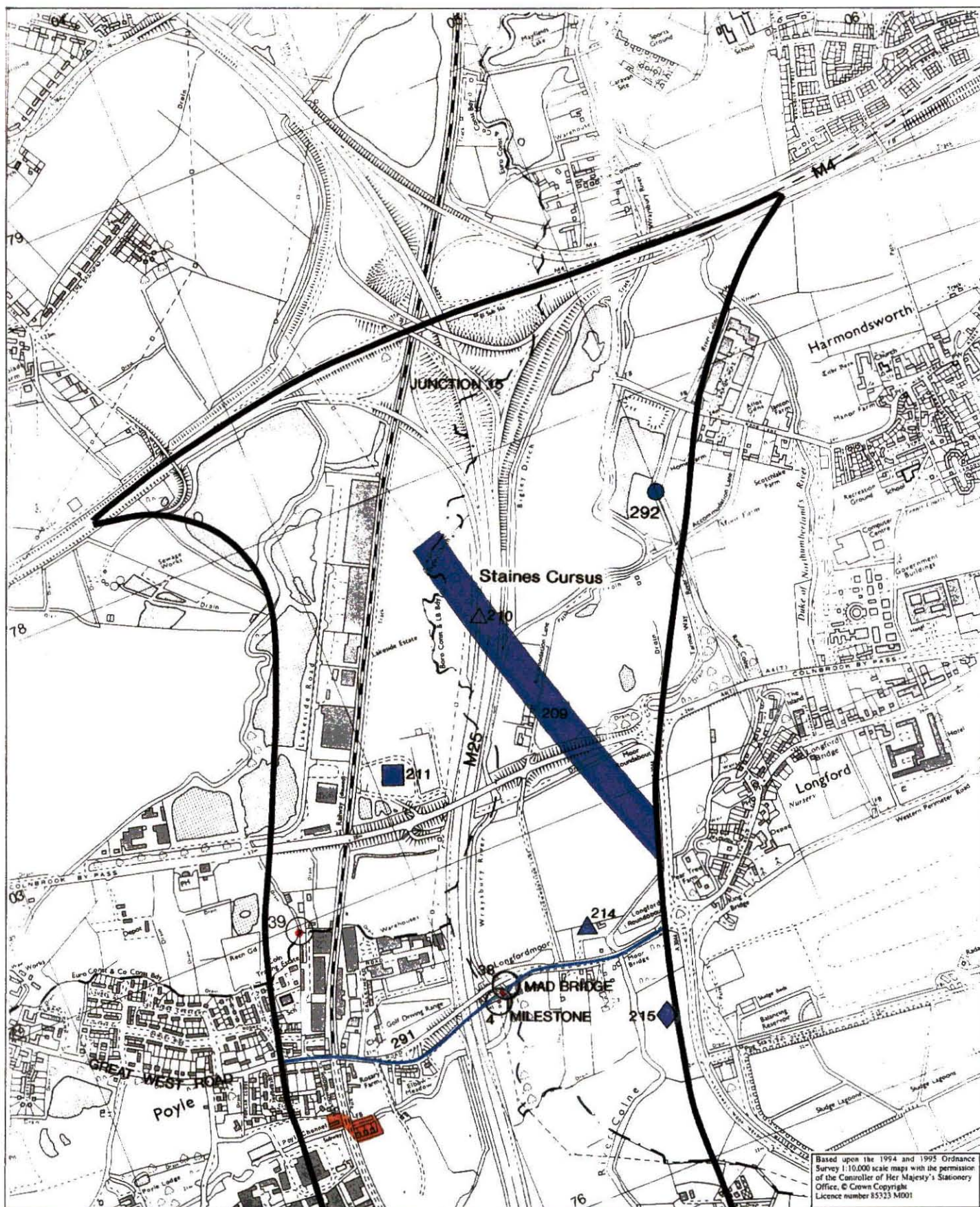


KNOWN CULTURAL HERITAGE FEATURES

FIGURE 5

Numbers refer to Appendices A-C





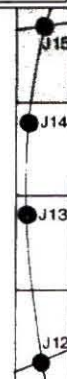
- | | | | |
|--|-----------------------------------|--|----------------------|
| | Scheduled Ancient Monument | | National Trust Land |
| | Archaeologically Significant Area | | Conservation Area |
| | Area of Cropmarks | | Historic Structure |
| | Earthwork | | Historic Area |
| | Findspot | | Registered Garden |
| | Site of Other Record | | Woodland 1st Ed OS |
| | Linear Feature | | Registered Common |
| | Linear Feature-Projected | | Extent of Study Area |

0 100 250 500m

KNOWN CULTURAL HERITAGE FEATURES

FIGURE 6

Numbers refer to Appendices A-C



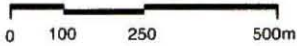
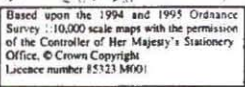
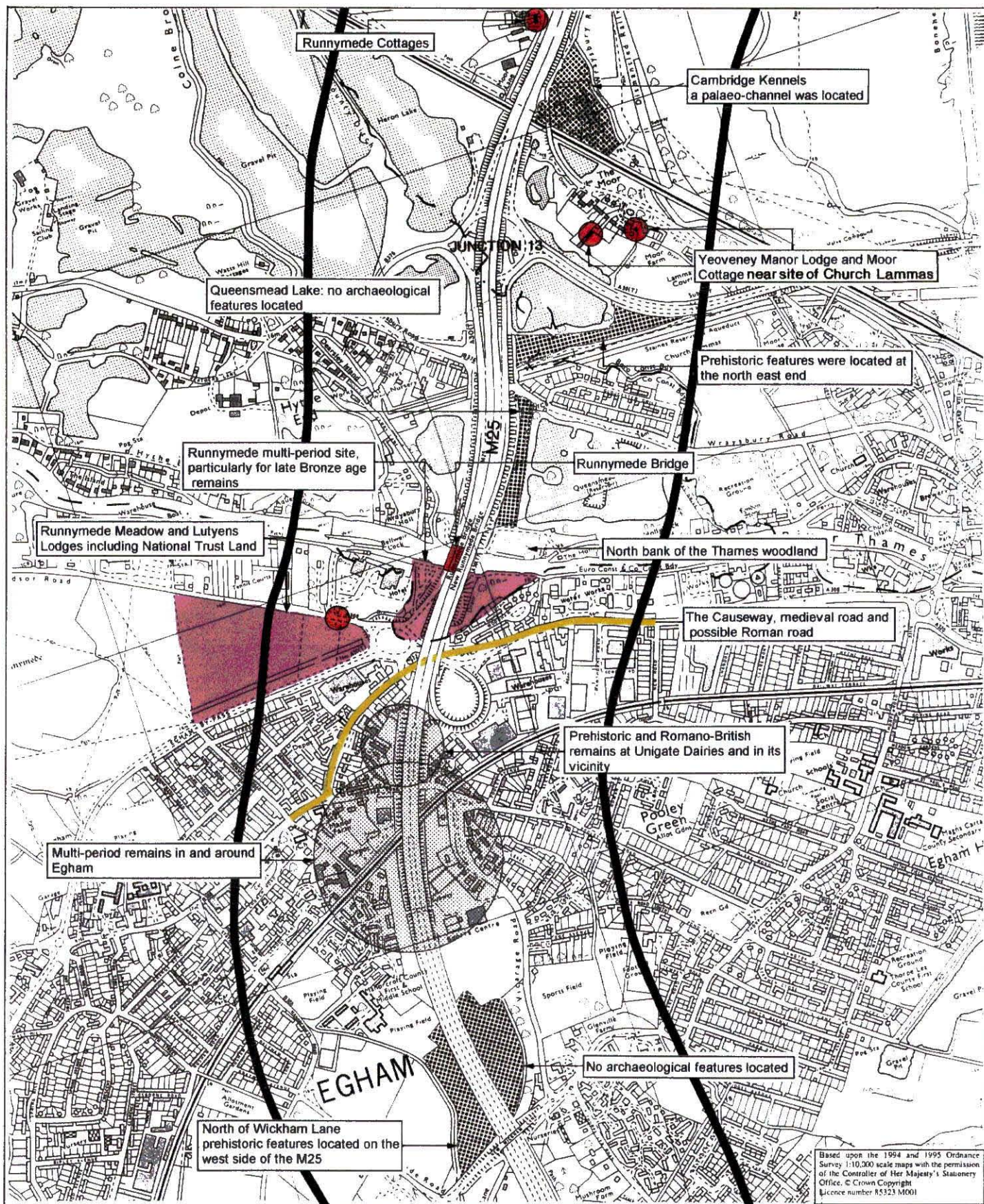


FIGURE 7



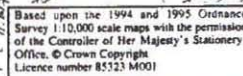
- Area of Archaeological interest
- Defined area of features
- Areas which have been archaeologically evaluated
- Individual historic structures
- Linear feature
- Extent of Study Area







0 100 250 500m

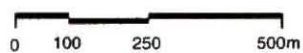
SUMMARY OF CULTURAL HERITAGE INTEREST

FIGURE 8



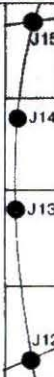


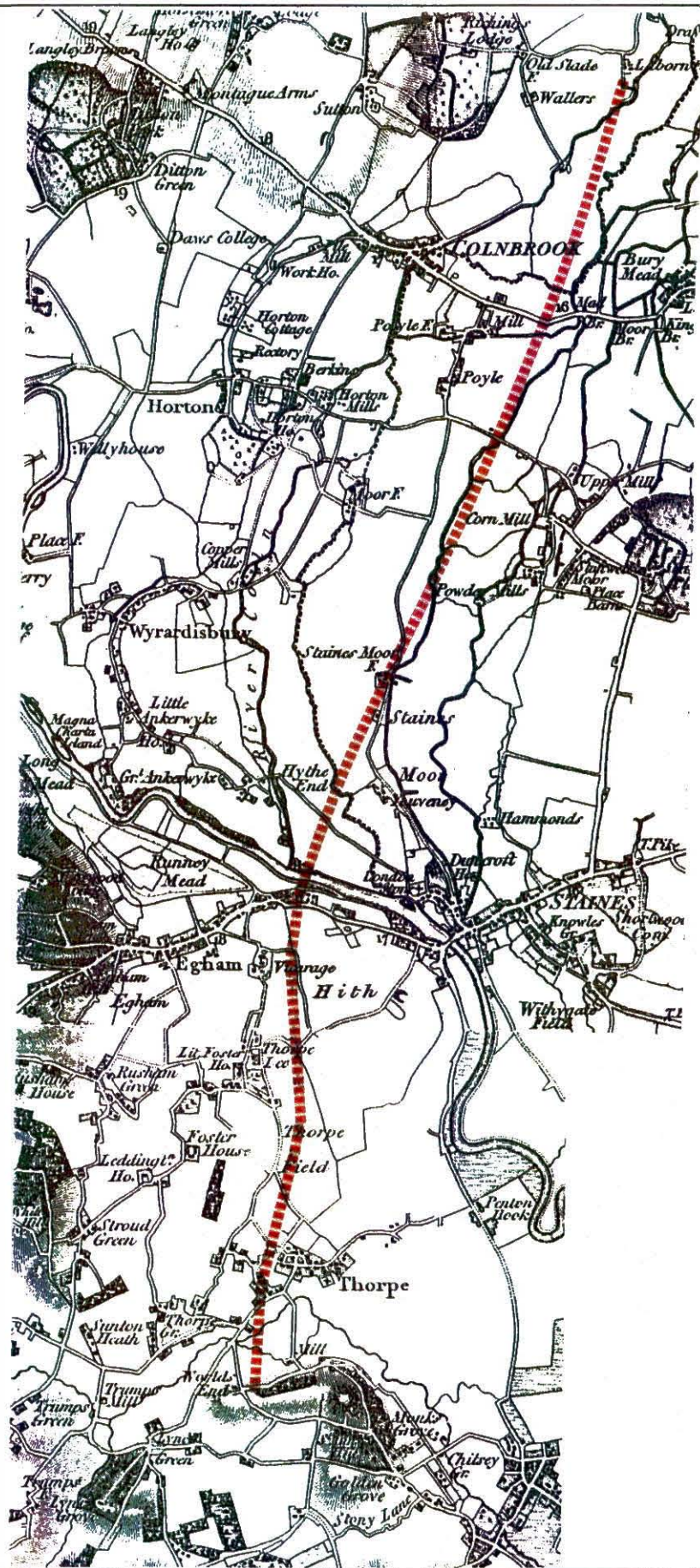
-  Area of Archaeological interest
 Defined area of features
 Areas which have been archaeologically evaluated
 Individual historic structures
 Linear feature
 Extent of Study area



SUMMARY OF CULTURAL HERITAGE INTEREST

FIGURE 10





Route of M25

ORDNANCE SURVEY
OLD SERIES 1" 1811



FIGURE 12



 Route of M25

ROCQUE'S MAP OF THE COUNTY OF BERKSHIRE 1762



FIGURE 13