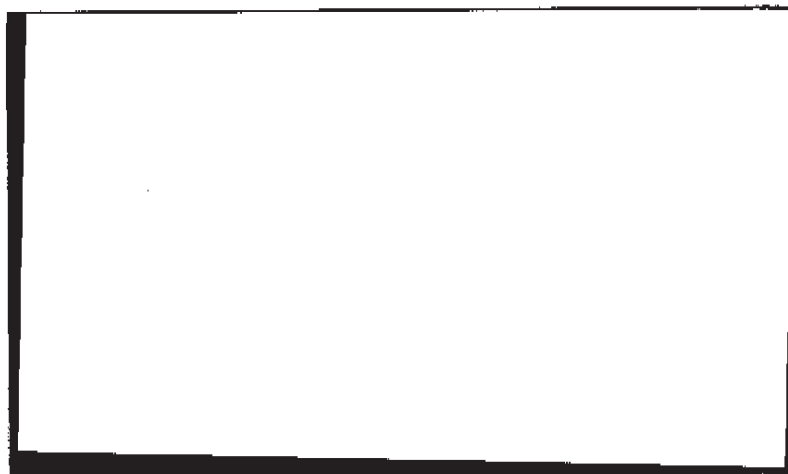


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A45/A46 TOLLBAR END IMPROVEMENTS
ARCHAEOLOGICAL
STAGE 3 ~~ECOLOGICAL~~ DESK-BASED ASSESSMENT
AND WALKOVER SURVEY OF THE PREFERRED ROUTE

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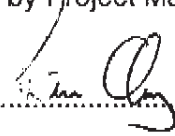
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APPROVED BY	PC					

**A45/A46 Tollbar End Improvements,
Warwickshire.
Stage 3 Archaeological Desk-based Assessment
and Walkover Survey of the Preferred Route.**

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**A45/A46 Tollbar End Improvements, Warwickshire.
Stage 3 Archaeological Desk-based Assessment
and Walkover Survey of the Preferred Route.**

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A45/A46 Tollbar End Improvements, Warwickshire.

Stage 3 Archaeological Desk-based Assessment and Walkover Survey of the Preferred Route.

1. Summary

The stage 2 desk-based assessment and preliminary walkover survey of the potential impact of the proposed A45/A46 Tollbar End Junction has identified some archaeological sites and cultural heritage that may be affected by the works. This Stage 3 assessment has identified the main known archaeological sites and the potential impact that the preferred route may have on them. At this stage no further Stage 3 surveys will be required, although mitigation in the form of watching briefs is suggested in areas of archaeological potential.

2. Introduction

This document is a stage 3 survey archaeological assessment of the preferred route based on the findings of a Stage 2 desk top assessment and preliminary walkover survey.

It comprises a desk-based assessment of the study area (Outlined in Fig. 1) combined with a walkover survey in order to assess the impact of the proposed alterations on the known archaeological deposits within the area.

The Tollbar End roundabout improvement is for a five way intersection at the junction of the A46/A45 and B4110. There is also minor alteration work proposed to slip roads and the Stivichell junction to the west. It lies to the south-east of Coventry and falls within several administrative areas including Stoneleigh, Baginton, Brandon and Bretford, Ryton-on-Dunsmore and Coventry City and comprises a mixture of land including several urban and built-up areas and farmland with the majority of open fields either under pasture or semi natural scrubland. Most of the work involves alteration to existing roads and some road widening (Fig 1).

3. Previous work

An archaeological survey and assessment for all of the options was carried out in 2001 by John Samuels Archaeological Consultants for David Tydesley Associates (JSAC 2001). This examined Sites and Monuments Records and other data combined with a walkover survey to assess the archaeological deposits that might be affected by the proposed options. Besides the two main Scheduled Ancient Monuments in the area, this report identified the possible remains of a medieval bridge (Ryton Bridge), a ring ditch close to the Stivichall island and some surviving areas of ridge and furrow.

4. Methodology

This assessment followed guidelines outlined in the *Design Manual for Roads and Bridges* Vols 10 and 11 and *Guidance on the Methodology for Multi-Modal Studies* (2000). The document *Applying the Multi-modal New Approach to Appraisal to Highway Schemes* (2001) was used to help compile this assessment (Appendix V).

A number of sources were consulted in order to gain a broad archaeological and historical assessment of the area and to evaluate the impact of the various proposed routes on these sites.

The methodology for the Stage 3 Desk-based assessment included analysis of the following:

- Geology
- Historic Mapping and Documentary Survey
- Sites and Monuments Records
- Schedule of Ancient Monuments
- Air photo Records
- Listed Buildings
- Conservation Areas
- Special Heritage Areas
- Historic parklands/Parks and Gardens of Special Historic interest

- World Heritage Sites
- Ancient Woodlands
- Archaeologically Significant Hedgerows
- Walkover survey

Copies of this document have been sent to Warwickshire County Council Sites and Monuments Records, Coventry City Council and English Heritage for consultation and comment.

For convenience this document has been divided into three parts.

- **Part 1** lists the historical and archaeological evidence gathered during the desk study and the preliminary field investigation.
- **Part 2** contains details of the archaeological sites within the study area potentially impacted in some way by the proposed works and the worksheets (Appendix V).
- **Part 3** outlines the conclusions for the data collected during this assessment.

The sites are identified by numbers (e.g. Site 1). All of the archaeological sites are listed in Appendix I and shown on Fig. 2.

PART 1: Historical and Archaeological Assessment

5. Geology

5.1 Geological Data

The geological map (Geological Survey of Great Britain Solid and drift, Sheet 184, Warwick 1:50,000) shows that the area is dominated by alluvium and river terrace sands and gravels. There is alluvium following the line of the rivers Avon and Sowe grading to alluvial fan gravels within a floodplain flanked by river terrace gravels. There is a large area of Baginton sand and gravels north of the River Sowe around Coventry airport. North of the village of Baginton are outcrops of Sherwood Sandstones of the Bromsgrove Sandstone formation and Tile Hill mudstone. Around Stivichell Junction is more Sandstone (Enville Group) and Tile Hill Mudstone.

5.2 Palaeochannels/Flood deposits

The study area lies in the valley of the River Sowe to the north of the A45 and the River Avon to the east. A third river (River Sherbourne) runs to the north of Stivichell Junction. Much of the land lies on floodplain between these rivers and the known geology indicates overbank flood deposits particularly close to the rivers.

Alluvial deposits may mask archaeological remains and the organic deposits recovered from old river channels and over bank flood deposits can provide evidence for the nature of the ancient environment. The potential for archaeological deposits buried under alluvium has long been recognised, and excavations in similar areas have shown that alluvium can protect archaeological deposits from later disturbances. Although any archaeological features would be buried beneath alluvium any major works would severely affect and damage such sites.

Much of the area close to the road however appears to lie on the slightly raised ground of the Baginton Sand and gravel deposits. The only obvious area that may contain palaeochannel deposits is **Site 7** (Fig. 2). The River Avon runs across this area of scrubland. The sinuosity of the meanders suggests that there has been a great deal of channel migration here and the 1886 1st edition

Ordnance Survey maps show that there has been some change within the last 100 years especially around Ryton Bridge (Fig. 3). There is a good possibility of old river channels containing organic deposits existing within this area.

6. Historic mapping and Documentary Survey

The Warwickshire Sites and Monuments Records, the National Monuments Records, the Public Records Office and the Warwickshire County Records Office at Warwick were checked for information. A full list of sources consulted is available in Section 21.

6.1. Maps

Early edition OS maps were studied and compared to modern day maps. The 1st edition Ordnance Survey Maps for the area (6" 1886, 27NW and 26NE) show that the vast majority of the land around the A45 and the two junctions was comprised of small fields (Fig. 3). Much of the land around the three rivers is marked on these maps as 'Liable to floods'. Rowley Road and Tollbar End are clearly marked. Later edition OS maps show few changes until the later 20th century. The main difference is the obvious urban encroachment of Coventry and the presence of the A45 road. Many of the old fields are now either part of large industrial units or are semi-wild, overgrown areas.

There are very few available early maps of the area. The 1841 Tithe apportionment map for Baginton shows that the village has not changed significantly (except for the straightening of a few roads) since the first half of the 19th century. There are a few small wooded areas within the village and the area south of the River Sowe (and the A45) is divided into small fields very similar to the later 1st edition OS maps.

An early plan of the Turnpike road from the River Sowe to the River Avon dated 1795 shows the Turnpike road crossing the River Avon over the 'Ryton New Bridge' suggesting that this may have replaced an older bridge in this area. The tollgate is marked just west of this. Either side of the road comprises mainly fields with a few buildings marked; all of these are now within built-up areas.

There is an enclosure award (1763) for Ryton-on-Dunsmore but this lies mainly outside the study area.

6.2. Documentary search

Place name searches were conducted on the Public and Local Records Office online databases for Finham, Stivichall, Whitley, Willenhall, Baginton and Ryton Bridge as well as the usual sources. There are several thousand references to these towns/villages dating from the 12th century onwards. Many of the references are from the Shakespeare Birthplace Trust Records Office, particularly from catalogues of the Gregory family of Stivichall and the Leigh family of Stoneleigh Abbey. The large numbers of documents relating to this area makes it impossible to assess them all fully although the earliest records were quickly scanned.

The local towns/villages were also researched in the Domesday Book (Williams and Martin 1992), Pevsner (1966), Victoria County History (1951), Dugdale's Warwickshire (1656) and White's Directories (1850 onwards).

6.2.1 Results

Baginton, Finham, Whitley, Willenhall and Ryton all appear in the Domesday Book. Baginton (land of Thorkil of Warwick) has a mill mentioned at this time. There are earthworks to the east of the church of St. John the Baptist (which has a Norman chancel), with the remnants of a building of probable 14th century date (Pevsner, 1966). Baginton has an unusually large amount of meadow (27 acres), which is probably due to the number of streams there (VCH 1951). The area around Baginton must once have been more wooded as in 1246 Robert de la Bruere was said to have assarted (turn woodlands into pasture or cropland) a great part of the common (Assize Rolls, 952, fol. 98) and in 1539 Baginton was the main source of timber for St. Mary's College at Warwick (VCH, 1951).

Finham (in Stoneleigh) belonged to the King (Edward) and had two mills as well as meadow, pasture and woodland. Whitley also had a mill and meadow and was held by Robert of Stafford. Stivichall does not appear in Domesday although its manorial records begin in 1285.

The place names are predominantly from Old English. Baginton means an estate associated with a man called Badeca, Willenhall is a nook or small valley either where willow-trees grow or of a man called Willa'. Stivichall is a nook of land with tree-stumps, Ryton is a 'farm where rye is grown', and Whitley is a 'white wood or clearing' (from *A Dictionary of English Place-Names*)

Besides the Domesday Book, the earliest documentary references found during the records office searches are to the chapels of *Wilenhala* (Willenhall) as belonging to the Priory of Coventry and the chapel of St. Michael in c.1183.

There is a Norman church in Stoneleigh (with a Norman font). It also contains Stoneleigh Abbey, one of the most dramatic Georgian mansions in Warwickshire. Originally this was a Cistercian abbey and the Cistercian monks moved there in 1155 or 1156 (Pevsner, 1966).

Thomas de Finham is mentioned on documents dating between 1200 – 1235 and in 1240 a gift was made from Edith, daughter of Richard de Kyngisland of *one half acre of land in the territory o Finham* to the Church of the Blessed Mary at Stoneleigh. Both Baginton and Whitley are mentioned in records dating c. 1240 – 1285.

The earliest documentary mention of Ryton Bridge is dated 24 March 18 Charles II (1665/6). This is an agreement '*that there shall be a sufficient waine way allowed to a piece of ground called Lynehill, the occupier of that land keeping a wickett at the lower end next Ryton Bridge.*' There is also a Grand Jury presentment of Ryton Bridge dated 28 April 1756, in the Warwickshire Quarter Sessions and a petition to the Trustees of the Turnpike Road from Finford Bridge (Ryton Bridge) opposing the setting up of the Toll dated c. 1830.

An article on the later Bridges of Warwickshire (Sapcote 1951) lists it as a modern bridge but suggests that there was an earlier bridge on the site mentioned by Dugdale (1656) and Leland and referred to as 'Finford Bridge' in the Quarter Sessions Records. The bridge is also described as 'New Ryton Bridge' on a 1795 survey (See Section 6.1), suggesting it had replaced an older bridge.

7. Sites and Monuments Record (SMR)

Information was obtained from the Warwickshire County Council, Sites and Monuments Records. All of the SMR records for the area were studied and those potentially affected by the proposed routes were examined in detail. SMR sites in the study area are listed in Appendix II. Figs 4 - 6 show the location of SMR sites within the study area. In addition information was requested from Coventry's Historic Environment Record. Their maps of Historic Land Use and Archaeology within the area showed that the majority of the urban area had previously been fields with a small patch of woodland (Whitmore and Middle and Near Woods) to the east.

7.1 Information from Sites and Monuments Records

7.1.1 Prehistoric (Fig. 4)

The village of Baginton lies on a plateau comprising 30ft of glacial sands and gravels overlying sandstone and clays. This is an ideal location for early prehistoric settlement. The earliest finds from the area are a number of Palaeolithic implements from the Baginton gravel pits including a hand axe (WA2670). A second Palaeolithic hand axe was found close by (WA3408); a Palaeolithic flake was also recovered from close by the village (WA2757).

There is a Neolithic site just south-west of the Stivichel Island (WA2690). Excavations in 1971 found a number of Neolithic pits containing burnt material and Neolithic pottery possibly close to an enclosure. A Neolithic ring ditch and a possible second ring ditch (WA6079) were recorded on aerial photographs (Site 3). In the 1960s rescue excavations in advance of the bypass construction revealed a 22.5m ring ditch. The ditch itself was well preserved, with a rounded profile 1.6m wide and 0.6m deep and although $\frac{3}{4}$ of the ditch fill was removed no artefacts were recovered from it. Although Neolithic hollows were also excavated on the site, it is suggested that the ditch is more likely to be Bronze Age in date (Pickering 1962; Hopley 1967, Webster & Hopley 1964). The location of the ring ditch lies immediately adjacent to the existing island and may well have been partially destroyed during the road and island construction. However, this slightly raised area suggests that this area may well contain other preserved prehistoric deposits. A number of prehistoric flint artefacts have recorded from around Baginton including Mesolithic flint (WA2692, WA4588), a Neolithic stone axe

(WA2684), and a number of mixed prehistoric flint scatters (WA2682, WA2693, WA2893, WA2963, WA2964, WA4286, WA4424). In addition a Bronze Age bucket urn (WA2681) and a Beaker (WA2678), have been found in the vicinity.

To the south are a number of pit alignments that are probably prehistoric in date (WA4990).

7.1.2 Roman (Fig. 5)

The most obvious Roman site is The Lunt Roman fort (WA2673; SAM 30057) on a wooded escarpment above the River Sowe. The fort has been extensively excavated since the 1960's and Roman occupation of the site dates from the late Neronian, early Flavian period (AD 60-79) and continues into the 3rd century. The fort is now partially reconstructed and open to the public.

A number of other sites around Baginton have recorded Roman deposits. Excavations here have uncovered Roman and medieval pottery associated with pits (WA2691) and a ditched enclosure with 1st to 2nd century occupation (WA2695). Another settlement site (WA2951) recovered a large collection of 1st to 4th century pottery associated with stone lined wells and a Roman settlement well in Baginton also contained 1st to 4th century pottery (WA2680).

Roman finds were recovered from the west of Baginton (WA2671, now quarried away). These included cinerary urns, a bronze jug and other pottery sherds dating to between AD30 and AD 45. Other finds include a pit containing 1st century pottery (WA2953), a Roman storage jar (WA2962), a Roman stone figurine (WA5628), Roman metalwork (WA5860, WA6625, WA6627, WA6969) as well as numerous other Roman finds and features from excavations and fieldwalking (WA8798, WA9185, WA2683, WA7511, WA2957, WA5302, WA8278).

7.1.3 Post-Roman – Medieval (Fig. 6)

East of village lies a 5th/6th century urn cemetery (WA2679) with approximately 60 urns, bronze bowls and other artefacts. A sunken hut containing Saxon pottery (WA5303) was located in a section of a gravel pit west of the church.

There is an early medieval Motte and Bailey Castle at Baginton (WA2676; SAM No 2154). The SMR suggests that the majority of the castle was rebuilt in 1397

but there was probably a castle on the site prior to this. Excavations at Tower Keep revealed a 14th century building on the site of an earlier castle (WA5296). Close to the castle lies the remains of the shrunken medieval village at Baginton (WA2694, WA5301, WA9492) where traces of buildings and features including house platforms and medieval pottery have been found. A possible site of the deserted Medieval village at Finham is recorded, based on documentary evidence (WA8406) and medieval iron works have been recorded at The Lunt (WA5300). Medieval metalwork has been recovered by metal detecting from a number of fields in the area. (WA5861, WA5862, WA6626, WA6970)

The church of St John the Baptist (WA 2675) in Baginton is probably early 13th century in date. There is a water mill west of Baginton (WA2685) dating back to at least 1545 and which may possibly be one of the mills recorded in Domesday.

Ridge and furrow earthworks have been recorded in two locations from aerial photographs (WA2955, WA2966) south of the A45, although no traces of earthworks were recorded during the walkover survey.

The fulling mill at Ryton-on-Dunsmore dating to 1621 could be on the site of a Domesday mill (WA4272). Ryton Bridge (WA4276) itself is relatively modern; however there was an earlier bridge on the same site (referred to as Finford Bridge by Leland and Dugdale). The south-west side of this bridge is a grade II listed building.

7.1.4 Post Medieval/Modern (Fig. 6)

There are a number of post-medieval/modern sites and buildings in this area. The site of a late 16th – 17th-century post medieval barn (WA5295) was uncovered during excavations on a ring ditch close to the Stivichall junction

Baginton Hall 18th-century Georgian house (WA5354), now demolished, was also the site of an earlier 17th century house (WA2677). There is a late 17th century rectory (WA2689), a fulling mill (WA2686) recorded in the 17th century south of the River Sowe and a 17th/18th century gazebo at the castle (WA2688). The 18th-century Lunt cottages (WA2961) lie on the site of earlier buildings.

In Baginton there is a pound and smithy (WA2697, WA2698), and Ice House (WA2954) and a Sundial marked at Lodge Farm on early Ordnance Survey maps.

South-east of the castle lies a series of three fishponds (WA2959) – a sample section of these have been scheduled (SAM21540). A wall together with post-medieval pottery and a modern feature were uncovered during excavations close to the castle (WA8912, WA7055).

The SMR also records an Imperial Horse Engine (WA2958) – possibly used prior to World War II, and old footbridge (now gone) across the River Sowe (WA2960), and a number of late 18th/19th century metal finds around the area (WA2966, WA6971).

There are two quarries on the SMR; WA2696 is marked on 1841 title map and WA7055 is a modern quarry. The line of the former London and North Western Railway (WA7563, WA7841) which opened in 1838 is recorded, as is Baginton Airfield (WA8027) developed before 1939 with the support of Armstrong Whitley, who's factory is nearby (WA8095).

8. Scheduled Ancient Monuments

The MAGIC database was accessed for information on the Scheduled Ancient Monuments. There are five scheduled ancient monuments listed in the surrounding area.

Scheduled Monuments

Monument Number	Name	Easting	Northing
<u>21540</u>	BAGINTON CASTLE, ASSOCIATED SETTLEMENT REMAINS, PONDS AND MILL SITES	434190	274680
<u>21540</u>	BAGINTON CASTLE, ASSOCIATED SETTLEMENT REMAINS, PONDS AND MILL SITES	434230	274480
<u>30057</u>	ROMAN FORT AT THE LUNT	434410	275160
<u>WA 169</u>	DESERTED MEDIEVAL VILLAGE AT KING'S HILL	433000	274600
<u>WA 169</u>	DESERTED MEDIEVAL VILLAGE AT KING'S HILL	432700	274600

The Lunt Roman fort in Baginton (SAM 30057), near Coventry was established in AD60 following the Boudiccan rebellion. The site was first discovered in the 1930's. Excavations conducted from the 1960's uncovered the defences and

interior buildings of a sequence of Roman military camps on the site. The fort survived three major changes of face over the course of its first twenty years, and was then abandoned for 180 years before construction of a new gateway and defensive ditches (http://www.roman-britain.org/places/the_lunt.htm). The site is now host to a partial reconstruction of the fort. The major Roman Road, Watling Street runs to the east of the area.

Baginton Castle (SAM 21540) is a stone ringwork and bailey fortress. Surrounded by a ditch are the foundations of a square keep with vaulted chambers in basement, a spiral stair turret and a rectangular garderobe turret. The square bailey retains part of its wide ditch and overlooking the river, the outer wall of a small tower.

Although neither of these sites nor the deserted medieval village at King's Hill (WA169) west of Baginton will be directly affected by the proposed development, the work may have a slight impact on their setting particularly the Roman Fort at The Lunt which lies close to the A45 and the Stivichall Island.

9. Aerial Photograph collection

The following records were checked:

- Warwickshire Sites and Monuments Record (SMR)
- Cambridge University Collection of Air Photos (CUCAP)

Cropmark sites had previously been identified by the SMR. Only one cropmark site lies close to the works, the ring ditch at Stivichell Junction (**Site 3**). There are several aerial photographs of the site taken by Jim Pickering taken in the 1960's and 1970's. These are listed below.

SMR Ref.	NGrid Ref.	NMR Ref.	Date
3475/F	SP341755	-	1971
3475/I	SP341755	-	1971
3475/G	SP341729	SF1234-3	-
3475/H	SP341729	SF1234-2	-

3475/E	SP343755	SP3475/4	1962
3475/D	SP343755	SP3475/3	1962
3475/A	SP340755	SP3475/5	-
3475/B	SP341755	-	1971
3475/C	SP343755	SP3475/2	1962

Two of the photographs show the site under excavation and from these it was deduced that the ring ditch itself lies very close to the existing junction and may well have been partially destroyed by it.

In addition Cambridge University Collection of Air Photos (CUCAP), was checked for online information. This shows a number of standard verticals of row by row overflights. No oblique cropmark photos of the site were recorded.

10. Listed Buildings

A full inventory of all buildings on the statutory list within the search area was obtained from the NMR online database that contains all buildings listed up to 2000 and checked against the SMR and Coventry Heritage information. Locations of listed buildings within the study area are shown on Fig. 7.

Nearly all of the listed buildings lie close to or within the villages/towns and are outside the area of the road lines. A full listing is available in Appendix III. The work will not have a significant impact on these listed buildings or their settings other than already exists. The exception is the Grade II listed Ryton bridge just south-east of the Tollbar junction (**Site 9**). The south-west side is dated to 1786 and is of sandstone ashlar with string course and coped parapet, comprising three semicircular arches with cut-waters (Plate 5). The road is to be widened at the bridge although this has been limited to the north-east side to avoid impact.

11. Conservation Areas

There are no urban conservation areas directly affected by the scheme. There are a number of nature conservation sites, nature reserves, Sites of Special

Scientific Interest including Brandon Marsh (Ref. 1002258) and the Ryton and Brandon Gravel pits (Ref. 1002063). The study area lies within adopted green belts (Fig. 7).

12. Historic Parklands/Parks and Gardens of Special Historic Interest

The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was searched for all sites within England (<http://www.magic.gov.uk/>).

The database includes the following rural designations:

- Areas of outstanding natural beauty
- Common Land
- Environmentally Sensitive Areas
- National Parks
- National Nature Reserves
- Scheduled monuments
- Sites of special Scientific Interest,
- Special Areas of Conservation
- Special Protection Areas
- World Heritage Sites
- Historic Parks and Gardens
- National Forest
- Registered battlefields

None of the above sites fall directly within the study area.

13. World Heritage Sites

The World Heritage List was searched (<http://whc.unesco.org/heritage.htm> and <http://www.thesalmons.org/lynn/wh-england.html>). No sites lie within the study area.

14. Ancient Woodlands

Ancient woodlands are those occupying sites that have been wooded continuously for several hundred years (usually taken as present since at least 1600 AD and potentially much earlier).

An Ancient Woodland Site must be shown on the 1st Edition Ordnance Survey maps (produced in 1830), and have been semi-natural at that time. Furthermore, tree cover will have been maintained from 1830 to the present day.

The trees and shrubs within these woods are native species that have not been planted. Such woodlands not only form important features in the landscape, but are also amongst our most valuable wildlife habitats. Because they have been long undisturbed, ancient woods can preserve archaeological features. Old coppice stools and pollards point to past woodland management practices, and charcoal pits, ore furnaces and kilns are clues to local industrial history.

The area of Ancient woodland (present since at least 1600 AD) is recorded in the Ancient Woodland Inventory (AWI) from the 1989 West Midlands Report. This surveyed a total woodland area of **1,429 hectares**, although only woodlands over two hectares were included. There are no known ancient woodlands within the study area.

The Multi-Agency Geographic Information for the Countryside (MAGIC) online database (<http://www.magic.gov.uk/>) shows no area of National forest within the study area. There appear to be no ancient woodlands within the study area although the land around Baginton must once have been more wooded. In 1246 Robert de la Bruere was said to have assarted (turn woodlands into pasture or cropland) a great part of the common (Assize Rolls, 952, fol. 98) and in 1539 Baginton was the main source of timber for St. Mary's College at Warwick (VCH, 1951). The Coventry Historical Record shows that two small woods (Whitmore and Middle and Near Woods) previously existed either side of the modern A45.

15. Archaeologically significant hedgerows

15.1. Definition

Ancient hedgerows are those that were in existence before the Enclosure Acts, passed mainly between 1720 and 1840 in Britain and from the mid 17th century in Ireland. Species-rich hedgerows may be taken as those that contain five or more native woody species on average in a 30 metre length, or four or more in northern England, upland Wales and Scotland.

Hedgerows often preserve ancient boundaries as an integral part of the managed historic landscape. They can provide physical evidence of ancient agricultural and husbandry practices and other boundaries and divisions. Hedgerows adjacent to roads, green lanes, tracks and wooded ground tend to be particularly species-rich.

In 1993 it was estimated that about 329,000 km of hedgerow remained in England and 49,000 km in Wales. In 1990, a similar estimate for Scotland was 33,000 km. Between 1986 and 1991 it was estimated that there were about 125,000 km of hedgerows in Northern Ireland. Thus the current UK total, assuming a continued overall net rate of loss due to removal and neglect of about 5% *per annum* in all four countries, may be estimated to be about 450,000 km.

The regulations on hedgerows are listed in Appendix IV.

15.2 Hedgerows in the study area.

The walkover survey showed that many of the hedgerows have been removed when the modern roads were constructed and the fields merged into much larger areas. However a number of lengths of hedgerow do survive particularly around the Tollbar End junction. The only hedgerows that may be affected by the proposed works are those within **Sites 5 and 7**.

16. Walkover survey

The walkover survey was undertaken during September 2003. All available fields and non-urban sites were walked. The numbered fields are shown on Fig. 8.

16.1 Observations (Fig. 8)

The vast majority of the fields visited were overgrown scrubland areas many being part of nature reserve sites. No obvious earthworks or other areas of archaeological interest were noted although most of the area was very overgrown and hard to penetrate.

Field 1

A raised grassed area with a few small bumps including a dip running east-west. Although not part of the Coventry Nature Conservation Site, it appears to have been put aside as an open space and a plaque within the field referred to the area as a 'Pleasure Garden' (Plate 1).

Field 2

The area of the ring ditch slopes southwards down to the River Sowe. It is currently semi-natural scrubland with numerous bushes and shrubs (Plate 2). There are numerous footpaths across the area. There was no sign of the ridge and furrow identified by the SMR but the site is very overgrown.

Field 3

Allotment gardens.

Field 4

The area close to the road comprises long grass and is fairly flat and low-lying. The western edge is part of the Coventry Nature Conservation Site (CNCS) and contains several protected species (Fig. 7)

Field 5

Grassed area and scrubland. This area is part of the CNCS and a local nature reserve (Stonebridge Meadows) with several protected species within it (Fig. 7).

Field 6

Short flat, grassed area.

Field 7

Allotment gardens.

Field 8

Very densely overgrown land with numerous brambles (Plate 3). Some possible earthworks were noted (possibly from road construction but too overgrown to be certain).

Field 9

Eastern end of Coventry Airport. The western side is very flat and may have been levelled. The eastern side is more bumpy and there is a sharp, steep drop to the road suggesting this area may well have been built-up.

Field 10

This field lies next to a local nature reserve and has numerous paths running through overgrown areas comprising bushes, trees and brambles.

Field 11

Long grassed area and quite scrubby in places. Contains remains of hedgerows.

Field 12

Low-lying scrubland area close to river. Appears to be alluvial and probably floods (Plate 4). An area of bare earth along the western edge by the road was walked and a single flint opposed platform bladelet core (with one platform possibly representing removals rather than preparation), probably Mesolithic in date was recovered. The only other finds were post-medieval/modern pottery and brick. The remnants of an old ditch and hedgerow lie parallel to Siskin Drive (probably an old field boundary). The asymmetrical meandering of the river here suggests that there may be old river channels in the area. The site is part of the Coventry Nature Conservation Site (Fig. 7).

Field 13

The fields south of the A14 are predominantly grassed. There is a small slightly wooded area close to the Industrial park, and there are wall remains visible within the area (Site 4).

PART 2: Archaeological Sites

17. Introduction

This section lists the archaeological sites identified by the evaluations that may be impacted in some way by the proposed routes. The location of each site is shown on Fig. 2.

18. Assessment methodology

18.1 Known Archaeological Sites

Each of the identified archaeological sites has been assessed following the DTLR Guidance on Methodology for Multi-Modal Studies (GOMMMS; DTLR 2000; 2001) for Heritage of Historic Resources. There is a brief description of each site followed by its general archaeological significance, likely impact of the proposed routes and suggested mitigation strategy. The appraisal summary table for each historic resource identifies Form, Survival, Condition, Complexity, Context and Period, each of which is assessed against the following indicators: Scale it Matters, Significance and Rarity. The assessment criteria are outlined in Appendix V.

A brief outline table has then been compiled of all sites. This is shown in Appendix VI.

18.2 Other Sites

This assessment has been completed only for known archaeological sites affected by the proposed work. It is possible that other sites of archaeological interest exist in the study areas that are not currently identifiable.

19. Site Descriptions

Site 1 Possible earthworks

Description: JSAC Site 1: The 2003 walkover survey showed it to be a raised area of grassland now part of a nature reserve. There are a few hollows and bumps that may be the remains of road construction identified by JSAC (2001).

Potential Significance: Low

Impact: The site lies much higher than the existing road and island and is unlikely to be affected.

Suggested mitigation strategy: None

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Possible Earthworks	Local	Low	Low	Neutral
Survival	Low	Local	Low	Low	Neutral
Condition	Low	Local	Low	Low	Neutral
Complexity	Low	Local	Low	Low	Neutral
Context	Relates to previous road construction	Local	Low	Low	Neutral
Period	Modern?	Local	Low	Low	Neutral

Site 2 Neolithic site

Description: JSAC Site 2: Allotment gardens. Contains SMR WA2690. Neolithic pits were found here during excavations in advance of the Kennilworth Bypass. The pits contained burnt stone, clay and sherds of Neolithic pottery. Also possibly part of an enclosure ditch.

Potential Significance: Medium - High

Impact: May be some very limited impact during roundabout & road construction.

Suggested mitigation strategy: None

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Neolithic Site	Local\Regional	Medium-high	Medium-high	Neutral
Survival	Fair	Local\Regional	Medium-high	Medium-high	Neutral
Condition	Fair	Local\Regional	Medium-high	Medium-high	Neutral
Complexity	Low	Local\Regional	Medium-high	Medium-high	Neutral
Context	May be related to Site 3?	Local\Regional	Medium-high	Medium-high	Neutral
Period	Neolithic	Local\Regional	Medium-high	Medium-high	Neutral

Site 3 Ridge & Furrow /Neolithic/Bronze Age Site/Post – medieval Barn.

Description: JSAC Site 3: Identified by JSAC as having possible ridge and furrow parallel to the A45 although no evidence of this was seen during the 2003 walkover. It also contains one, possibly two ring ditches (WA6079) originally identified by aerial photographs. Excavations revealed a 22.5m diameter ring ditch. Although thought to be contemporary with Neolithic hollows excavated in the same area it seems more likely to be Bronze Age in date.

The ring ditch excavations also uncovered traces of a post medieval barn on a rising hillock just above the flood plain (WA5295). Pit and slot features dated to late 16th early 17th century were recorded and there is documentary evidence for a barn here during this period.

Potential Significance: Medium - High

Impact: Possible limited impact on very northern edge of site.

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Ridge & Furrow/ Neolithic & Bronze Age site/PM Barn	Local/Regional	Medium - High	Medium - High	Slight adverse
Survival	Fair	Local/Regional	Medium - High	Medium - High	Slight adverse
Condition	Partially excavated & truncated by present island	Local/Regional	Medium - High	Medium - High	Slight adverse
Complexity	High - Multi period	Local/Regional	Medium - High	Medium - High	Slight adverse
Context	Could be related to Site 2.	Local/Regional	Medium - High	Medium - High	Slight adverse
Period	Prehistoric – Post medieval	Local/Regional	Medium - High	Medium – High	Slight adverse

Site 4 Walls

Description: JSAC Site 9: JSAC identified wall remains from buildings visible from the A45.

Potential Significance: Low

Impact: None

Suggested mitigation strategy: None

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Building remains	Local	Low	Low	Neutral
Survival	poor	Local	Low	Low	Neutral
Condition	poor	Local	Low	Low	Neutral
Complexity	Low	Local	Low	Low	Neutral
Context	May relates to other Post-medieval buildings and field systems	Local	Low	Low	Neutral
Period	Post-medieval	Regional	Low	Low	Neutral

Site 5 Hedge & ditch

Description: JSAC Site 16: Area under grass - an ancient hedgerow & ditch runs across the site, close to the possible location of Ryton medieval bridge (WA4276). Could possibly be an old road line?

Potential Significance: Low

Impact: May be some impact during roundabout and road construction along western edge of site

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Hedge and ditch	Local	Low	Low	Slight adverse
Survival	Good	Local	Low	Low	Slight adverse
Condition	Good	Local	Low	Low	Slight adverse
Complexity	Low	Local	Low	Low	Slight adverse
Context	Relates to field systems	Local	Low	Low	Slight adverse
Period	Medieval - Post-medieval	Local	Low	Low	Slight adverse

Site 6 Find spots

Description: JSAC Site 15: Grassed field containing two old hedgerows and several SMR findspots (WA6970, WA5860 WA5861, WA5862). Finds include Roman coins (2nd – 4th century) and medieval metalwork (bronze cauldron feet, lead weight, buckles, measuring cup, handle & ring). Area is now part of a nature reserve.

Potential Significance: Medium

Impact: None

Suggested mitigation strategy: None

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale It matters	Significance	Rarity	Impact
Form	Metal detecting finds	Local	Medium	Low	Neutral
Survival	Good	Local	Medium	Low	Neutral
Condition	Good	Local	Medium	Low	Neutral
Complexity	Low	Local	Medium	Low	Neutral
Context	Unrelated to features	Local	Medium	Low	Neutral
Period	Roman - Medieval	Local	Medium	Low	Neutral

Site 7 Alluvium/Palaeochannels

Description: JSAC Site 17: Low lying land – possible flood area. Contains a ditch (old field boundary). A Mesolithic flint was recovered during the 2003 walkover.

Potential Significance: Low

Impact: Will be impacted by new roundabout and the new link road construction.

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Alluvium//Palaeochannel deposits	Local	Low	Low	Moderate adverse
Survival	Unknown	Local	Low	Low	Moderate adverse
Condition	Unknown	Local	Low	Low	Moderate adverse
Complexity	Unknown	Local	Low	Low	Moderate adverse
Context	No known archaeological deposits	Local	Low	Low	Moderate adverse
Period	Unknown	Local	Low	Low	Moderate adverse

Site 8 Possible earthworks

Description: JSAC Site 7: Overgrown grassed area with humps – possibly the remains of road construction identified by JSAC (2001).

Potential Significance: Low

Impact: Will be some impact during roundabout construction to north and east of site.

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Possible earthworks	Local	Low	Low	Moderate adverse
Survival	Fair	Local	Low	Low	Moderate adverse
Condition	Fair	Local	Low	Low	Moderate adverse
Complexity	Low	Local	Low	Low	Moderate adverse
Context	Relates to previous road construction	Local	Low	Low	Moderate adverse
Period	Modern?	Local	Low	Low	Moderate adverse

Site 9 Ryton Bridge

Description: JSAC Site 16/17: Overgrown grassed area. This site contains Ryton Bridge (SMR WA4276), a Grade II listed building. The south-west side is dated to 1786 and is of sandstone ashlar with string course and coped parapet, comprising three semicircular arches with cut-waters (Plate 5). The road is to be widened at the bridge although this has been limited to the north-east side to avoid impact, it is possible remains of earlier bridges may still exist here.

Potential Significance: Medium

Impact: May be some impact during bridge widening.

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for further recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale it matters	Significance	Rarity	Impact
Form	Medieval bridge	Local	Medium	Medium	Moderate adverse
Survival	Unknown	Local	Medium	Medium	Moderate adverse
Condition	Unknown	Local	Medium	Medium	Moderate adverse
Complexity	Multi period - Medium	Local	Medium	Medium	Moderate adverse
Context	Unknown	Local	Medium	Medium	Moderate adverse
Period	Medieval – post-medieval	Local	Medium	Medium	Moderate adverse

Site 10 Romano-British remains

Description: SMR WA8278– surface scatter of Roman pottery and settlement evidence. Excavations recorded 1-2m wide ditch of 2nd – 3rd century date.

Potential Significance: Medium

Impact: Possible impact from road construction/landscaping.

Suggested mitigation strategy: Recording and survey of features could be covered by a standard watching brief during groundworks with contingency for recording and environmental sampling strategies.

Assessment Table:

Part 1		Part 2			Part 3
Feature	Form	Scale It matters	Significance	Rarity	Impact
Form	Romano-British settlement	Local/Regional	Medium	Medium	Slight adverse
Survival	Good	Local/Regional	Medium	Medium	Moderate adverse
Condition	Fair	Local/Regional	Medium	Medium	Moderate adverse
Complexity	Medium	Local/Regional	Medium	Medium	Moderate adverse
Context	Fieldwalking identified building material	Local/Regional	Medium	Medium	Moderate adverse
Period	Romano-British	Local/Regional	Medium	Medium	Moderate adverse

PART 3: Discussion and Conclusions

20. Discussion

20.1 Summary of archaeological background.

This assessment has shown that there is some archaeological potential within the study area and that there are a number of known archaeological sites. The geology and topography (the roadline lies on raised sand and gravel deposits above the river valleys) is particularly suited to prehistoric settlement and there are a number of prehistoric finds from the area. There is also a strong Roman presence especially around Baginton with the Roman fort at The Lunt and numerous other sites. However this area is also part of a much larger historical landscape and the presence of post-medieval and industrial sites, places the area within a regional historical context.

A total of eleven possible archaeological sites were identified that lie close to the road and junctions. However at the present time only six of these sites are likely to be impacted by the development and only three of these sites (7, 8 and 9) are likely to be significantly affected by the works. No further evaluation work is required and the affected sites could be effectively dealt with by a standard watching brief strategy during ground works in these areas. However it should be noted that any further groundworks carried out within the identified archaeological sites may require further archaeological work.

This assessment has only commented on the known archaeological sites of the study area and there may well be more archaeology that is not visible – possibly masked by alluvial deposits. The potential for sub-alluvial archaeological and palaeoenvironmental information is recognised as a priority nationally (English Heritage 1998). There appears to have been little systematic archaeological survey of the fields that in this area that remain undeveloped.

20.2 Summary of Impact

Following the *Guidance on the Methodology for Multi-Modal Studies* (GOMMMS; DETR 2000; 2001) on present information the impact on the archaeology and cultural history of the proposed work is slightly negative, with some adverse impact on the historic landscape of the area and below ground archaeology.

In addition further works within the identified archaeological sites such as borrow pits, storage areas, compounds and landscaping may have a negative impact not identified by this report and may require further archaeological work.

On present information, therefore, the overall assessment score for the impact of the proposed scheme on the archaeology and cultural heritage of the area, following the seven-point scale defined in GOMMMS, is Slight Adverse.

20.3 Conclusions

- Ten archaeological sites were identified that lie close to the road and junctions.
- The proposed work will have a Neutral impact on Sites 1, 2, 4 and 6.
- The proposed work will have a Slight Adverse impact on Sites 3 and 5
- The proposed work will have a Medium Adverse impact on Sites 7, 8, 9 and 10.
- The overall impact of the Scheme is assessed as Slight Adverse.
- No further stage 3 archaeological evaluation is required but watching briefs will be required for the six impacted sites (3, 5, 7, 8, 9 and 10).
- At an appropriate stage the impact of any borrow pits; contractor's compounds and topsoil storage areas should also be evaluated.

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27/11/2003

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APPENDICES

- Appendix I* *Sites identified from the desk study and preliminary field evaluation*
- Appendix II* *SMR Sites within the study area (Figs 4-6)*
- Appendix III* *Listed buildings within the study area*
- Appendix IV* *List of Regulations on Hedgerows*
- Appendix V* *Guidelines for the Assessment of Historic Resources (GOMMMS).*
- Appendix VI* *Table of archaeological sites.*

Appendix 1: Sites identified from the desk study and preliminary field evaluation

Site No.	SMR Ref	Grid ref	Parish	Type	Description	JSAC Site No
1	-	SP34112587	Baginton	Earthworks	Overgrown grassed area with humps - possibly the remains of road construction identified by JSAC (2001).	Site 1
2	WA2690	SP33847545	Baginton	Neolithic Settlement Site	Neolithic pits were found here during excavations in advance of the Kennilworth Bypass	Site 2
3	WA6079 WA5295	SP34117548	Baginton	Ridge & Furrow/ Prehistoric Site/PM Barn	Ridge and furrow visible parallel to the A45. Bronze Age ring ditch seen on APs and excavated. Also remnants of PM Barn.	Site 3
4	-	SP35027548	Baginton	Walls	JSAC identified wall remains from buildings visible from the A45.	Site 9
5	-	SP36795611	Ryton-on Dunsmore	Hedge & ditch	Ancient hedgerow & ditch runs across the site, close to the possible location of Ryton medieval bridge. Possibly an old road line?	Site 16
6	WA6970 WA5860 WA5861 WA5862	SP36797527	Brandon & Brentford	Findspots	Grassed field containing several SMR findspots. Finds include Roman coins and medieval metalwork.	Site 15
7	-	SP36697550	Ryton-on Dunsmore	Alluvium	Low lying land - possible flood area. Contains a ditch (old field boundary).	Site 17
8	-	SP36267523	Brandon & Brentford	Earthworks	Overgrown grassed area with humps - possibly the remains of road construction identified by JSAC (2001).	Site 7
9	WA4276	SP36887540	Ryton-on Dunsmore	Bridge	Site of Medieval bridge - documentary evidence	Site 16/17
10	WA8278	SP37157615	Brandon & Brentford	Findspots	surface scatter of Roman pottery and settlement evidence. Excavations recorded 1-2m wide ditch of 2nd - 3rd century date.	

Appendix II SMR sites within the study area (See Figs 4 - 6)

SMR Ref	Area	Grid Ref	Type	Description
WA2670	Baginton	SP33857510	Find	Palaeolithic artefacts
WA2671	Baginton	SP34007455	Find	Roman finds. Probably a burial site outside the Baginton settlement. Now quarried away.
WA2672	Baginton	SP34117548	Settlement	Excavation revealed Neolithic features
WA2673	Baginton	SP34117518	Fort	The Lunt Roman Fort: Period 1
WA2675	Baginton	SP34347474	Building	Church of St. John the Baptist
WA2676	Baginton	SP34187469	Castle	Baginton Castle - Motte & Bailey Castle
WA2677	Baginton	SP34347486	Building	Site of 18th century Baginton Hall
WA2678	Baginton	SP34717489	Find	Early Bronze Age Beaker
WA2679	Baginton	SP34847481	Cemetery	Urn cemetery - 5th early 6th century in date.
WA2680	Baginton	SP34567468	Settlement	Roman settlement & well
WA2681	Baginton	SP34757499	Find	Bronze Age Bucket Urn
WA2682	Baginton	SP34637481	Find	Bronze Age flint arrowhead
WA2683	Baginton	SP34407486	Settlement	Roman settlement - excavations
WA2684	Baginton	SP34207480	Find	Neolithic stone axe
WA2685	Baginton	SP33937529	Building	Watermill - recorded in Domesday. Extant mill probably dates back to at least 1545.
WA2686	Baginton	SP34077405	Building	Fulling Mill
WA2688	Baginton	SP34107474	Building	Ruined gazebo on site of Castle
WA2689	Baginton	SP34407470	Building	Late 17th Century Rectory
WA2690	Baginton	SP33847545	Settlement	Neolithic features - excavations
WA2691	Baginton	SP34407474	Settlement	Roman - excavation
WA2692	Baginton	SP34207470	Find	Mesolithic flints
WA2693	Baginton	SP35307510	Find	Neolithic/Bronze Age flint
WA2694	Baginton	SP34207474	Settlement	Shrunken medieval village
WA2695	Baginton	SP34747485	Settlement	Roman settlement - excavation
WA2696	Baginton	SP36387442	Quarry	Marked on 1841 tithe map
WA2697	Baginton	SP34677463	Pound	Pound
WA2698	Baginton	SP34637468	Forge	Smithy
WA2699	Baginton	SP36217429	Sundial	Site of sundial, Lodge Farm
WA2757	Baginton	SP34707470	Find	Palaeolithic flint flake
WA2893	Stoneleigh	SP34007455	Find	Neolithic/Bronze Age flint
WA2951	Baginton	SP34897493	Settlement	Site of Roman settlement at Baginton
WA2953	Baginton	SP34347503	Pit	Roman pit
WA2954	Baginton	SP34457526	IceHouse	Ice House
WA2955	Baginton	SP34587513	Earthworks	Ridge & Furrow
WA2956	Baginton	SP34627474	Earthworks	Ridge & Furrow
WA2957	Baginton	SP34547482	Settlement	Roman settlement - excavations
WA2958	Baginton	SP34557483	Horse Engine	Imperial Horse Engine
WA2959	Baginton	SP34257451	Fishpond	Fishponds South-east of Castle
WA2960	Stoneleigh	SP34077465	Bridge	Site of footbridge
WA2961	Baginton	SP34507510	House	The Lunt Cottages
WA2962	Baginton	SP34407470	Find	Roman Storage Jar
WA2963	Baginton	SP34407490	Find	Prehistoric flints
WA2964	Baginton	SP34007400	Find	Prehistoric flint
WA2966	Baginton	SP34757495	Find	Misc. finds
WA3408	Baginton	SP33507490	Find	Palaeolithic handaxe
WA4272	Ryton-on-Dunsmoor	SP37587521	Mill	Ryton Mill
WA4276	Ryton-on-Dunsmoor	SP36887540	Bridge	Site of Medieval Bridge (Ryton Bridge)
WA4286	Ryton-on-Dunsmoor	SP37457495	Find	Prehistoric flint
WA4424	Stoneleigh	SP33407410	Find	Neolithic flints
WA4588	Baginton	SP34307480	Find	Mesolithic flints
WA4990	Ryton-on-Dunsmoor	SP37287419	Pit alignment	Several pit alignments from APs.

SMR Ref	Area	Grid Ref	Type	Description
WA5295	Baginton	SP23117548	Site	Traces of a post-medieval barn 16th/17th C
WA5296	Baginton	SP34187469	Castle	Tower Keep Castle at Baginton
WA5297	Baginton	SP234417518	Fort	Roman Fort Period 2
WA5298	Baginton	SP234417518	Fort	Roman Fort Period 3
WA5299	Baginton	SP234417518	Fort	Roman Fort Period 4
WA5300	Baginton	SP34437518	Furnace	Site of medieval Iron works at the Lunt
WA5301	Baginton	SP34407474	Site	Shrunken village
WA5302	Baginton	SP34007400	Find	Roman sherds
WA5303	Baginton	SP34207469	Settlement	Saxon settlement west of church
WA5354	Baginton	SP34327485	Site	Site of C18 Baginton Hall north of church.
WA5628	Baginton	SP34107470	Find	Roman stone figurine found near the church
WA5860	Brandon & Bretford	SP36757580	Find	Roman metalwork
WA5861	Brandon & Bretford	SP36757580	Find	Medieval metalwork
WA5862	Brandon & Bretford	SP36757580	Find	Medieval/Imperial metalwork
WA6079	Baginton	SP34117548	Site	Probable Neolithic Ring ditch - excavation
WA6625	Brandon & Bretford	SP37007500	Find	Roman finds and coins
WA6626	Brandon & Bretford	SP37007500	Find	Assorted medieval finds from metal detecting
WA6627	Brandon & Bretford	SP37007500	Find	Roman finds from metal detecting
WA6969	Brandon & Bretford	SP37007600	Find	Roman metalwork
WA6970	Brandon & Bretford	SP37007500	Find	Assorted medieval finds from metal detecting
WA6971	Brandon & Bretford	SP37007500	Find	Post-medieval metal finds
WA7055	Baginton	SP34087456	Site	Modern quarry and other features
WA7511	Baginton	SP34067413	Site	Roman features? - excavation
WA7563	Rugby	SP37507670	Railway	LNWR London - Birmingham railway
WA7841	Rugby	SP37507670	Railway	LNWR London - Birmingham railway
WA8027	Baginton	SP35567466	Airfield	Baginton Airfield
WA8095	Baginton	SP36217439	Factory	Armstrong Whitley's new factory
WA8278	Brandon & Bretford	SP37157615	Settlement	Romano-British remains
WA8406	Stoneleigh	SP33237429	Settlement	Possible site of Finham DMV
WA8798	Baginton	SP34447504	Find	Roman pottery
WA8912	Baginton	SP34627490	Wall	Wall & post-medieval pottery
WA9185	Baginton	SP34317507	Site	Roman features - ditches
WA9492	Baginton	SP34417472	Settlement	Baginton medieval settlement

Appendix III Listed Buildings within the study area.

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/21 IoE number : 307886

Date listed : 11 APR 1967

Date of last amendment : 11 APR 1967

Description: Ruins of Castle 160 yards west of Church of St John the Baptist. The remaining walls are from 2 ft to 6 ft high.

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/23 IoE number : 307888

Date listed : 11 APR 1967

Description: Church of Saint John the Baptist, Church Road, (north side), circa C13.

Grade: I

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/25 IoE number : 307889

Date listed : 23 JAN 1987

Date of last amendment : 23 JAN 1987

Description: Link Cottage, Late C16/early C17 house, Church Road, (north side).

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/24 IoE number : 307890

Date listed : 23 JAN 1987

Date of last amendment : 23 JAN 1987

Description: Lucy Price House, Late C16/early C17 house, Church Road, (north side).

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/26 IoE number : 307891

Date listed : 23 JAN 1987

Date of last amendment : 23 JAN 1987

Description: Oak Farmhouse and No 2, Circa C18 red brick house, Church Road, (south side).

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 6/27 IoE number : 307892

Date listed : 23 JAN 1987

Date of last amendment : 23 JAN 1987

Description: The Old Rectory, Late C17, Church Road (south side).

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

Photographer : Miss Ruth Charlton ARPS

List No: 2/28 IoE number : 307893

Date listed : 23 JAN 1987

Date of last amendment : 23 JAN 1987

Description: Outbuilding 9 yards south-west of Rose Cottage, Coventry Road (north side), Small circa C17 timber-framed outbuilding

Grade: II

Location : BAGINTON, WARWICK, WARWICKSHIRE

List No: 2/29 IoE number : 307894

Date listed : 30 SEP 1983

Date of last amendment : 30 SEP 1983

Description: 1 Lunt Cottages, c.1600. Coventry Road (north side)

Grade II

Location : BAGINTON, WARWICK, WARWICKSHIRE
List No: 2/30 IoE number : 307895
Date listed : 23 JAN 1987
Date of last amendment : 23 JAN 1987
Description: 2 Lunt Cottages Circa late C15/early C16. Coventry Road (north side)
Grade II

Location : BAGINTON, WARWICK, WARWICKSHIRE
List No: 2/31 IoE number : 307896
Date listed : 23 JAN 1987
Date of last amendment : 23 JAN 1987
Description: Baginton Bridge, Mill Hill, circa C18 sandstone ashlar bridge over the River Sowe
Grade II

Location : BAGINTON, WARWICK, WARWICKSHIRE
List No: 7/22 IoE number : 307993
Date listed : 23 JAN 1987
Date of last amendment : 29 JUL 1987
Description: Buddenhall Bridge I Dated 1884.
Grade II

Location : BRANDON AND BRETTFORD, RUGBY, WARWICKSHIRE
List No: 1/6 IoE number : 308792
Date listed : 25 AUG 1987
Date of last amendment : 25 AUG 1987
Description: Ryton Bridge (that part in Brandon and Bretford), Dated 1786
Grade II

Location : COVENTRY, WEST MIDLANDS
List No: 5105/1 IoE number : 218401
Date listed : 05 FEB 1955
Date of last amendment : 24 JUN 1974
Description: Whitley Abbey Bridge (Formerly listed as Whitley Bridge), C16. Stone single span arched bridge ABBEY ROAD, WHITLEY
Grade II

Location : STIVICHALL COVENTRY, WEST MIDLANDS
List No: 5105/2 IoE number : 218510
Date listed : 05 FEB 1955
Date of last amendment : 05 FEB 1955
Description: Church of St James, 1817 on site of medieval church demolished 1810, LEAMINGTON ROAD, (East Side), STIVICHALL
Grade B/II

Appendix IV
Regulations on Hedgerows

Statutory Instrument No. 1160 The Hedgerows Regulations 1997

In relation to archaeology and history the regulation defines a hedgerow as 'important' if it, or the hedgerow of which it is a stretch,-

- (a) The hedgerow has existed for thirty years or more.
- (b) The hedgerow marks the boundary, or part of the boundary, of at least one historic parish or township; and for this purpose "historic" means existing before 1850.
- (c) The hedgerow incorporates an archaeological feature which is -
 - i) included in the schedule of monuments compiled by the Secretary of State under section 1 (schedule of monuments) of the Ancient Monuments and Archaeological Areas Act 1979[35]; or
 - ii) recorded at the relevant date in a Sites and Monuments Record.
- (d) The hedgerow -
 - i) is situated wholly or partly within an archaeological site included or recorded as mentioned in paragraph 2 or on land adjacent to and associated with such a site; and
 - ii) is associated with any monument or feature on that site.
- (e) The hedgerow -
 - i) marks the boundary of a pre-1600 AD estate or manor recorded at the relevant date in a Sites and Monuments Record or in a document held at that date at a Record Office; or
 - ii) is visibly related to any building or other feature of such an estate or manor.
- (f) The hedgerow -
 - i) is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure Acts; or
 - ii) is part of, or visibly related to, any building or other feature associated with such a system, and that system -
 - is substantially complete; or
 - is of a pattern which is recorded in a document prepared before the relevant date by a local planning authority, within the meaning of the 1990 Act, for the purposes of development control within the authority's area, as a key landscape characteristic.

APPENDIX V

GUIDELINES FOR THE ASSESSMENT OF HISTORIC RESOURCES

Applying the Multi-modal New Approach to Appraisal to Highway Schemes

7 Environment

7.7 Heritage of Historic Resources

7.7.1 AST Entries

Qualitative	Summary of the features, their importance and the effects of the proposal.
Quantitative	Not applicable.
Overall Assessment Score	Seven point scale: Large Beneficial, Moderate Beneficial, Slight Beneficial, Neutral, Slight Adverse, Moderate Adverse, and Large Adverse or, Very Large Adverse outside the scale.

7.7.2 Methods and Worksheets

GOMMMS worksheet 4.9 requires the historic resource to be described in Form, Survival, Condition, Complexity, Context and Period, each of which is assessed against the following indicators: Scale it Matters, Significance and Rarity. Guidance is given in GOMMMS on each feature and indicator. The approach encourages looking at the wider heritage landscape (townscape) understanding habitation, development and past and present perceptions rather than the isolated spot data and individual archaeological sites'. The impact is recorded in the fifth column. The assessment Score is derived from GOMMMS table 4.8, which gives a seven point scale based on the importance of the heritage resource and the degree to which it would be affected. Note that, at all Stages, the assessment score and its basis must be discussed with English Heritage and their views taken into account. DMRB Volume 11 Section 3 Part 2, Cultural Heritage, describes the information needed and this, in a different order, will fill the GOMMMS worksheet 4.9.

7.7.3 Data Transformation from DMRB to GOMMMS

Data Requirements	Modify DMRB output	Data Sources
Worksheet		
Description of characteristic features of heritage	Re-order	DMRB 11.3.2.3, 4 and 9
Appraise environmental capital		DMRB 11.3.2
Impact on 7 point scale	Yes	Use GOMMMS 4.9.16-18 and table 4.8
AST		
Summary of character & effects	Yes	Summarise worksheet
Assessment Score	Yes	Summarise worksheet

7.7.4 DMRB Stages 1 and 2/ GOMMMS

Stage 1 DMRB requires a plan showing areas of archaeological and built heritage importance from desktop study; statement of significance and further surveys needed. Corridors affected by alternatives should be shown.

Stage 2 DMRB will include updated Stage 1 data plus information from walkover survey, and replies from consultees.

4.9 The Heritage of Historic Resources Sub-objective

4.9.1 The man-made historic environment ('heritage', or heritage resource, heritage assets) comprises:

- buildings (individually or in association) of architectural or historic significance;
- areas, such as parks, gardens, other designed landscapes or public spaces, remnant historic landscapes and archaeological complexes; and
- sites (e.g. ancient monuments, places, with historical associations such as battlefields, preserved evidence of human effects on the landscape, etc.).

Heritage also includes the sense of identity and place, which the combination of these features provides.

4.9.2 The characteristics of the heritage may be commonplace and contribute to local identity, being representative of the distinctiveness of an area. They may also be significant due to their rarity, exemplary form or style, or historical associations. Appreciation of characteristics can change with time (e.g. recent listing of post-war buildings), and trends in character and identity of the heritage should be taken into account during its appraisal. This guidance builds on D 11.3.2.6 and is based on guidelines prepared by English Heritage.

Methodologies for Plans

4.9.3 The methodology for appraising the impact of plans on heritage follows the four stage general approach to appraising 'environmental capital' set out above, leading to an overall assessment score. Applied to heritage, the approach is:

- to describe sequentially the characteristic features of the heritage;

- to appraise environmental capital - using a set of indicators, this is done by assessing
 - the importance of these characteristic features,
 - why they are important,
 - and the inter-relationships between heritage features;
- to describe how proposals impact on the heritage features, including effects on its distinctive quality; and
- to produce an overall assessment score on a seven point scale.

4.9.4 This framework is set out in Worksheet 4.8 provided at the end of the Chapter, and further definitions and explanation to assist in completing this are set out below.

4.9.5 The process of characterising and appraising the heritage is important in its own right, and not just as a means to produce the final score, which will feature on an AST. The methodology and detail provides further information to decision makers, who will often have to look further than the AST considering the effects of proposals. This work will also provide a clear audit trail setting out the basis for these decisions.

4.9.6 **Stage 1: Describe heritage character.** This stage of the approach involves describing the character of the heritage in question. This process should record the characteristic features of a study area, identifying what currently exists and any discernible trends which would lead to degradation or loss of those characteristic features in the absence of the proposals. This provides a baseline against which the effects of the proposals can be appraised. Limited areas or specific proposals will allow detailed description of the heritage in question; more strategic or geographically extensive proposals will require a higher level of description, appropriate to the scale of the study and focusing on the most characteristic features of the historic resource.

4.9.7 Character is described using a series of Features, against each of which brief descriptive text characterises the resource. The Features are listed on the left of Worksheet 4.8, and the Description column provides the space to describe the resource in appropriate terms. These features are designed to be applicable to the historic built environment as well as archaeological sites and monuments.

4.9.8 This descriptive process does not involve qualitative judgements; the significance of the characteristics described forms the subsequent stage.

4.9.9 **Stage 2: Appraise environmental capital.** This stage involves appraising the character described under each feature (attribute) against a set of Judgement at indicators to establish the significance of the heritage resource in question. This uses the concept of Environmental Capital to assess what matters in the historic environment, to whom, and why it is important. These indicators should be applied to all of the features described under Stage 1 of the process above. These are an attempt to move away from a simple designation led approach, since the varying sets of legislation and levels of designation for the heritage do not lend themselves readily to such a hierarchical system. Rather than apply notional absolute values to qualities of the heritage, this Stage seeks to establish the significance of features within their context and work towards relative values. For example, medieval moated sites are quite common in low-lying parts of southern England, and are nationally well -represented in the archaeological resource. They are rare in upland areas, especially in the north, and so a typical example (in terms of its form) in Cumbria would be potentially much more significant in its region and nationally than an equivalent site in the south of the country. This appraisal of the heritage resource is represented on Worksheet 4.8 by the significance of the columns Scale it Matters/Rarity/Significance.

4.9.10 The methodology outlined for stages 1 and 2, describing and appraising the significance of the heritage assets in the study area, provides a baseline level of environmental capital. These stages should also consider the likely changes to these heritage assets over time in the absence of the study proposals.

4.9.11 **Stage 3: Appraise impact of proposal.** This stage involves describing the impact of the study proposals, set against the baseline environmental capital established in the preceding stages. This is an identification process, and precedes the judgement of the final assessment score. The impairment or loss of the significance described in the previous stage should be set out, and will provide the background context for the final qualitative comments in the Appraisal Summary Table. This could include the loss of features within a specific location, or the cumulative impact of extensive proposals on a number of elements of the wider heritage resource. It should provide an assessment of the scale and seriousness of the impact in specific terms, and the cumulative effect across the study area as a whole. This should encompass Incremental or secondary impacts, such as gradual degradation of context through noise or other pollution, etc. All impacts on the heritage resource, either adverse or beneficial, should be identified, along with their magnitude. Reference could be made to recommended mitigations of the impacts, including an estimate of their adequacy, and therefore provide a Justification for the final assessment score for the proposals. The time period for consideration of impacts should include the worst-case scenario, whenever this would arise, and the situation 15 years after implementation of the proposals. This is represented by the Impact column of Worksheet 4.8.

4.9.12 **Stage 4: Overall assessment score.** This stage involves deriving an overall assessment score (on the standard 7 point text scale: large/moderate/slight beneficial and adverse, neutral), along with the qualitative comments informed by the impact described in Stage 3 and the definitions given below for those scores.

4.9.13 Features, for the purpose of this guidance, are the attributes which most strongly define the heritage resource of the study area. It is important to identify and describe the characteristic elements of the heritage under the relevant Feature in Worksheet 4.8. For detailed schemes, the Environmental Statement or similar documentation should have described the heritage in some detail, and set it in a wider context. There is likely to be considerable consistency through use of standard descriptive approaches, such as ancient monument classifications, Listed Building descriptions, Conservation Area character appraisals and other sources. This should

make appraisal of specific schemes, and comparisons between them, as straightforward and consistent as possible.

Form - This is the physical form of the site, building(s), historic land/townscapes or other heritage assets being described and appraised. It should consist of a factual description setting out their structure, scale, extent, materials, style and format. It should focus on the characteristic attributes of the heritage in question. It might usefully be phrased in hierarchical terms, starting with main structures/features, and moving on to their scale, extent, construction and materials. (e.g. Farm, main house and outbuildings, house in brick, 2 storey, slate roof, cobbled yard surfaces, brick and timber barn, enclosed by moat, wet, on 3 sides, north arm infilled). This is not restricted to a site by site description of individual buildings or other components, but can also encompass area descriptions such as the form, scale, layout and pattern of a historic landscape or townscape.

Survival - The heritage survives in many different states of completeness. The area of a monument or landscape may have been reduced by some forms of land use, such as ploughing or quarrying, or elements of a building or area lost through occasional or progressive alteration so that original or important fabric has been removed or damaged. Many parts of the heritage, especially buildings and urban areas, are products of multiple phases of development and use. Judgement must be applied to determine which are the most characteristic elements in question, and it is their survival which should be indicated here. The relationship between multiple characteristics is covered below under complexity. A text description of the extent of survival of the likely original or characteristic fabric should be given, along with a more general estimate based on a 3 point scale: Poor, where less than 40% remains; Moderate, where 40-70% remains; Good, where over 70% remains intact.

Condition - This represents the appearance and present management of the heritage resource, along with its stability and likely rate of change from existing condition. It is quite distinct from survival, in that a roofless ruin might be very incomplete as a result of historic damage or decay but currently be very well managed and maintained as a historic monument, and therefore what remains would be in good condition. This description should refer to any erosion or other factors which might cause decay, the current management and maintenance regimes and any problems with them, and any inherent instabilities.

Complexity - This represents both the diversity of elements and their relationships within a part of the heritage resource and the wider complexity of its relationships beyond this immediate limits. Within a location, this could include a complex sequence of additions to a building over a lengthy period of development, such that it is composed of and representational of a multi-period and stylistically diverse development in building techniques and architectural styles. These could be of historical or architectural significance. Alternatively, an individual structure might be relatively uncomplicated in period and style, but represent one type among a wide variety within a class of sites and be illustrative of that diversity. Beyond a single location, this could include the relationships among a group of sites or structures (such as buildings) in an area, either where the sites (structures) are related (in form, scale, pattern, date or use) as a group, or contribute to a wider historic landscape or townscape which is significant through its diversity of elements illustrative of its historic development.

Context - This represents the immediate setting of a site, building or area, and its intelligibility within its surroundings. It covers the quality and detail of its immediate visual context, and the value of any associations within that with other elements either of related period and class or as part of a palimpsest illustrating the historic development of its setting. The quality of the setting should be described, along with the intelligibility of the heritage assets and the integrity of their multiple elements (where appropriate) in that setting. This should include the more intangible characteristics, such as tranquillity and other attributes which give a sense of place to the heritage resource and help to determine appreciation of it. It should be borne in mind that not all elements of the heritage are aesthetically pleasing; these can still be important characteristics and contribute to appreciation and understanding of the resource.

Period - This should be a representation of the date of origin and duration of use of the heritage resource described. For most archaeological sites, a period description will be based on the illustrative list given in Table 4.9 (Medieval, for example); for some buildings this will also be the case. However, most buildings and other types of structure will be capable of description in more specific and useful terms, which should be used to provide as clear a description of the feature as possible (such as Victorian, C19, 1865). It would also be appropriate to include special historic or architectural associations and interest which contribute to the character of the heritage assets, such as the architect responsible, historic events taking place or notable figures linked to the place. Table 4.8, provided at the end of this section, presents a set of illustrative terminologies that can be used to identify both heritage form and period.

4.9.14 Heritage Indicators are as follows.

The **Scale it Matters** column is about the geographical scale at which the features (attributes) matter to both policy makers at all levels and to local stakeholders (residents, interest groups, businesses, etc.). Do they contribute to fulfilment of policy commitments at a national level (e.g. government obligations under the UNESCO World Heritage Convention; Heritage policies in PPG 15 and PPG 16), or Regional or Local objectives (such as those set out in Structure or Local Development Plans). Some regional and local objectives might also represent national policy aims, simply expressing local contributions to larger targets. Where this is the case the higher policy levels addressed should be flagged up in the Worksheet. The scale at which characteristics, described against each feature, matter will not necessarily be on the same scale as the attribute itself. An extensive historic land/townscape, such as parks and gardens, or Conservation Areas, may primarily matter to local communities and users, while another similar (in geographic extent) area may relate to events of national significance, such as historic battlefields (e.g. Hastings).

The **Rarity** column should contain information on the heritage and its features in terms of its representational value (some features are very rare either nationally or within their locality, others are relatively common and typical and so important characteristics of a period or region, etc.), the diversity of the class into which it falls (some classes are represented by numerous regional or typologically distinct types, others are relatively simple and exhibit little variation), and potential (some heritage assets provide opportunities for research, understanding, interpretation and presentation which may not be available at other examples due to prevailing circumstances). The fragility and vulnerability of the heritage should also be considered, since while there may be numerous surviving examples of a site or attribute they might all be so fragile or under such threat that widespread losses could entirely change the level of survival of the whole class (e.g. non-designated urban features subject to development pressures; coastal archaeology threatened by patterns of erosion). It has to be borne in mind in this section that the heritage is not a replaceable or substitutable resource.

The **Significance** column should contain information on designations, which may suggest levels of significance for the heritage resource. However, significance is not wholly based on designations, statutory or otherwise and additional information should be incorporated to appraise significance within its context. This should allow for a greater degree of differentiation between individual features, which might all have the same level of designation or none, but which are not all of equal significance within their context. It may also allow for discrimination within designated areas, since not all parts of an area are necessarily of equal significance. Non-designated elements of the heritage may also be of great significance, either through recognition in other, non-designation formats or as major contributors within a locality to identity or character. They may simply not be designated, but be of equivalent importance to those which are, as a result of the technicalities of legislative frameworks. The great majority of buildings and structures, areas, and monuments in the country will remain undesignated and have no statutory protection; they may still be significant, and this will be a matter for professional judgement based on available data, or dependent on the perceptions of other stakeholders. The subjectivity and application of professional judgement in appraising significance is an integral part of environmental management and should not be regarded as a weakness of it.

4.9.15 It is important to identify characteristics which are of special significance at local, regional or national scale. Although, under Scale it Matters, some features may be most important at a local level (and not matter significantly at regional or national level) they could be among the most valuable and characteristic elements within a local context and have particular value to local stakeholders. This will be an important factor in determining the level of impact in the subsequent sections. (This also applies at regional and national levels).

Assessment of Effect

4.9.16 The **Impact** column should contain an assessment of the impact of the proposals on the significance of the features identified and described in stages 1 and 2 of the framework. The extent to which the identified Significance will be either compromised or enhanced should be made clear, including the mitigating effects of any amelioration incorporated formally into the proposals or allowed for as standard good practice. The detail available for a specific scheme, probably including an Environmental Statement, should make this impact appraisal straightforward. Where this level of information is not available, it should still be possible to make an informed judgement on likely impacts, whether positive or negative, substantial or slight; the level of certainty attached to these judgements should be explained.

Final Assessment Scores and Definitions of Effect

4.9.17 The definitions shown in Table 4.8 are based on the seven point scale for scoring of impact. The terminology used in the Appraisal Summary Table (AST) has the advantage of being symmetrically consistent. These definitions are based on and relate to national objectives, including those of English Heritage. They should also be generally applicable in regional and local contexts. However, they are not fixed and finite, and the local processes of character description and capital appraisal may require flexibility to accommodate the complexity of the heritage resource in an area or the perceptions of the relevant stakeholders. Definition of the terms for the heritage criterion is as follows (NB that any use of the term 'Site' is as a shorthand for monuments, buildings, areas, land/townscapes and so on; it is not restricted to statutory designated or spatially restricted locations, or archaeological features):

4.9.18 Provision should be made for extreme appraisal results which have such a very large negative (or much less likely, positive) impact that they lie outside of the standard seven point assessment score. This permits the flagging up of unusually significant proposals, so that they can be seen clearly to lie outside the normal range of outcomes. An explanation of the reasons for this should be set out in the Qualitative Comments box. Guidance on this aspect of scoring is given in the general introduction, above.

Following the appraisal methodology set out above, and summarised in Worksheet 4.8, the Appraisal should be of the proposals as a whole, and not a series of individual site-based scores. Positive and negative impacts should not be scored separately and balanced out, since that process is already included within the appraisal of impacts made within Stages 2 and 3 of the appraisal process, and already includes credit for appropriate mitigation action either previously identified or assumed as good standard practice. Good design should already have removed or mitigated the worst avoidable impacts, and so those which remain in the Large (or Very Large) category should have this clearly set out in the final assessment score.

Qualitative Comment on the Effects of an Option

4.9.19 This field in the Appraisal Summary Table provides an essential opportunity to summarise the overall effect of the proposals on the heritage resource. The comments are space limited and must be concise, drawing out the most significant effects and the main Justifications for the assessment score given. This field will provide decision makers with the first step back on the audit trail from the assessment score into the information on which it has been based. It will be informed by the appraisal of impact carried out in Stage 3 of the process, and by

the descriptions given to illustrate and define scores as set out in Table 4.8; however, it should not be a simple and repetitive restatement of that, and should also draw on the specific features and their values set out in Stages 1 and 2 of the process in order to inform decision makers and any subsequent review of the reasons for arriving at the assessment score. This opportunity to comment will be especially useful in setting out how contrasting impacts on aspects of the heritage have been balanced to reach the assessment score derived from the process.

Methodology for Strategies

4.9.20 The level of detail available for the potential impacts of any proposals at a strategic level will usually be considerably less than for corridor/project studies where route and mode data, as well as information on the heritage resource likely to be affected, will be more readily accessible. Although information on the heritage resource within an area for a strategic study might be fairly detailed, it is possible that the impact data will be restricted to changes in vehicle kilometrage or gross landtake within the area. In such cases the heritage data might even be too detailed, when set against the limited impact data, to enable any generally applicable and useful conclusions to be reached. It will be useful to list the main data sources used in this strategic appraisal, so that decision makers can assess the level of confidence to place in the conclusions, and consider whether any additional information is required before reaching their decisions. Where there is insufficient data to enable both the heritage, and potential impacts on it, to be fully appraised using the methodology set out above for Plans, then it may only be possible to state whether a proposal has one of the following impacts.

- **Positive** - where it contributes to the protection or enhancement of the heritage; this could apply either where the probable outcome is clearly beneficial, or where mixed positive and negative impacts could apply but the positive substantially outweighs the negative.
- **Negative** - where it is detrimental to the protection of the heritage; this could apply either where the probable outcome is clearly detrimental, or where mixed negative and positive impacts could apply but the negative substantially outweighs the positive.
- **Mixed** - where it has a combination of impacts on the heritage, but data resolution does not yet allow a conclusion on the balance between them or their magnitude.
- **Indeterminate** - where the data level does not allow any secure conclusions to be reached, or it is possible that the proposals will have minimal and insignificant impacts on the heritage.

4.9.21 The appraisal of these impacts must be carried out against policy objectives, in the absence of adequate data for a full appraisal as in the Methodology for Plans. This should be carried out using Worksheet 4.9 (provided at the end of the Chapter), setting out a list of objectives down the left hand side under the three categories of National, Regional and Local. The level of objectives, and the specific detail and number of policy objectives to be gone into, will depend on both the scale at which the study is being carried out and the relevance of the objectives to the proposals in the study. The appraisal as to how each objective is met, positively, negatively, mixed or indeterminate, is indicated in the columns across the Worksheet, where a brief description should be given as to how this result is derived and why.

4.9.22 The Worksheet should then provide the basis for an overall assessment score for the proposals, derived from the individual impacts against objectives. This should be amplified by the Qualitative Comments field, which should set out why the assessment score was reached and how it represents the summary of impact on the individual objectives. Almost all overall scores will derive from a mixture of positive and negative objective scores, probably along with some which are mixed or indeterminate. In general, the process will be based on weighting the objectives according to whether they are of national (highest), regional or local (lowest) importance. There may have to be a balanced view taken within each category as well as a summary view across all three in order to produce an overall Score. This Comments section is therefore very important in explaining the derivation of the overall score from this more complex underlying pattern. It will be essential to flag up conflicts between different objectives and how well the study proposals meet them. These Worksheet results would then feed into the strategic level AST.

Worksheet 4.8 Environment: Heritage of Historic Resources – Plan Level

Part 1		Part 2		Part 3	
Feature	Description	Scale it matters	Significance	Rarity	Impact
Form					
Survival					
Condition					
Complexity					
Context					
Period					

Summary Assessment Score.....

Worksheet 4.9 Environment: Heritage of Historic Resources – Strategy Level

Level	Policy/Objective	Positive	Negative	Mixed	Intermediate
National	Objective 1				
	Objective 2				

	Objective 3				
Regional	Objective 1				
	Objective 2				
	Objective 3				
Local	Objective 1				
	Objective 2				
	Objective 3				

Summary Assessment Score.....

Table 4.8 Heritage of Historic Resources - Definitions of Overall Assessment Scores

Score	Comment
Large beneficial (positive) effect	<p>The proposals would:</p> <ul style="list-style-type: none"> provide potential, through removal, relocation or substantial mitigation of very damaging or discordant existing impacts (direct or indirect) on the heritage, for very significant or extensive restoration or enhancement of characteristic features or their setting make a major contribution to government policies for the protection or enhancement of the heritage remove or successfully mitigate existing visual intrusion, such that the integrity, understanding and sense of place of a highly valued area, a group of sites or features of national or regional significance is re-established
Moderate beneficial (positive) effect	<p>The proposals would:</p> <ul style="list-style-type: none"> provide potential, through removal, relocation or mitigation of damaging or discordant existing impacts on the heritage, for significant restoration of characteristic features or their setting contribute to Regional or Local policies for the protection or enhancement of the heritage enhance existing historic landscape/townscape character through beneficial landscaping/mitigation and good design
Slight beneficial (positive) effect	<p>The proposals</p> <ul style="list-style-type: none"> are not in conflict with national, regional or local policies for the protection of: the heritage restore or enhance the form, scale, pattern or sense of place of the heritage resource through good design and mitigation remove or mitigate visual intrusion (or other indirect impacts) into the context of locally or regionally significant heritage features, such that appreciation and understanding of them is improved
Neutral effect	<p>The proposals:</p> <ul style="list-style-type: none"> are not in conflict with, and do not contribute to policies for the protection or enhancement of the heritage maintain existing historic character in a landscape/townscape have no appreciable impacts, either positive or negative, on any known or potential heritage assets are a combination of slight positive and negative impacts, on locally significant aspects of the heritage do not result in severance or loss of integrity, context or understanding within a Historic landscape
Slight adverse (negative) effect	<p>The proposals would:</p> <ul style="list-style-type: none"> be in conflict with local policies for the protection of the local character of the heritage have a detrimental impact on the context of regionally or locally significant assets, such that their integrity is compromised and appreciation and understanding of them is diminished damage locally significant heritage features for which adequate mitigation can be specified not fit well with the form, scale, pattern and character of a historic landscape/townscape/area
Moderate adverse (negative) effect	<p>The proposals would:</p> <ul style="list-style-type: none"> be out of scale with, or at odds with the scale, pattern or form of the heritage resource be intrusive in the setting (context), and will adversely affect the appreciation and understanding of the characteristic heritage resource be in conflict with local or regional policies for the protection of the heritage be damaging to nationally significant heritage assets, resulting in loss of features such that their integrity is compromised, but not destroyed, and adequate mitigation has been specified be a major direct impact on regionally or locally significant heritage, resulting in loss of features such that their integrity is substantially compromised, but adequate mitigation can be specified
Large adverse (negative) effect	<p>The proposals would:</p> <ul style="list-style-type: none"> have a major direct impact on nationally significant heritage assets such that they are lost or their integrity is severely damaged have a moderate direct impact on or compromise the wider setting of multiple nationally or regionally significant heritage assets, such that the cumulative impact would seriously compromise the integrity of a related group or historic landscape/townscape have a major direct impact on regional heritage assets, such that their integrity is lost and no adequate mitigation can be specified be highly intrusive and would seriously damage the setting of the heritage resource, such that its context is seriously compromised and can no longer be appreciated or understood be in serious conflict with government policy for the protection of the heritage, as set out in PPG 15 and PPG 16. be strongly at variance with the form, scale and pattern of a historic landscape/townscape

Table 4.9 Heritage - Form and Period Terminology

Form terminology (Illustrative, not comprehensive):

Building (inhabited - roofed)

Building (uninhabited - would generally be roofed)

Ruined Building (generally once roofed)

Standing Structure (bonded, such as a free-standing wall)

Ruined standing structure

Standing Structure (unbonded, such as drystone work)

Earthwork (positive upstanding feature, including those with substantial stone component such as hedge banks)

Negative earthwork (ditch)

Accumulated deposits (urban archaeological deposits of stratified material)

Flat/non-accumulated deposits (cropmarks, soilmarks and so on)

Conservation Area

Park or Garden (registered)

Battlefield

Historic urban core zone

Historic building complex (e.g. terrace, house with outbuildings)

Period terminology (mainly archaeological sites; not comprehensive for later or more specific dates):

- Lower Palaeolithic (pre 30,000 BC)
- Upper Palaeolithic (30,000 - 10,000BC)
- Mesolithic (10,000 - 3,500BC)
- Neolithic (3,500 - 2,000BC)
- Bronze Age (2,000 - 700BC)
- Iron Age (700BC - AD43)
- Roman (AD43 - AD450)
- Early Medieval (AD450 - AD1066)
- Medieval (AD1066 - AD1540)
- Post Medieval (AD1540 onwards)

APPENDIX VI: TABLE OF ARCHAEOLOGICAL SITES

SITE	JSAC REF	SMR REF	DESCRIPTION	ARCHAEOLOGICAL IMPORTANCE	IMPACT	SUGGESTED MITIGATION
1	Site 1	-	Possible earthworks	Low	None	None
2	Site 2	WA2690	Neolithic Site	Medium - High	None	None
3	Site 3	WA6079 WA5295	Ring ditch & Neolithic features Post-medieval barn Ridge & Furrow	Medium - High	Slight Adverse: Possibly limited impact on northern edge of the site	Watching Brief
4	Site 9	-	Wall remains	Low	None	None
5	Site 16	WA4276	Hedgerows/Ryton medieval bridge	Low	Slight Adverse: May be some impact during roundabout and road construction along western edge of site	Watching brief
6	Site 15	WA6970 WA5860 WA5861 WA5863	Metal finds	Medium	None	None
7	Site 17	-	Alluvium/Palaeochannels	Low	Medium Adverse: Will be impacted by new roundabout and the new link road construction.	Watching Brief
8	Site 7	-	Earthworks?	Low	Medium Adverse: Will be some impact during roundabout construction to north and east of site.	Watching Brief
9	Site 16/17	WA4276	Ryton medieval bridge	Medium	Medium Adverse: Will be some impact during bridge widening.	Watching Brief
10	-	WA8278	Roman finds/settlement	Medium	Medium Adverse: Possible impact from road construction/landscaping.	Watching Brief

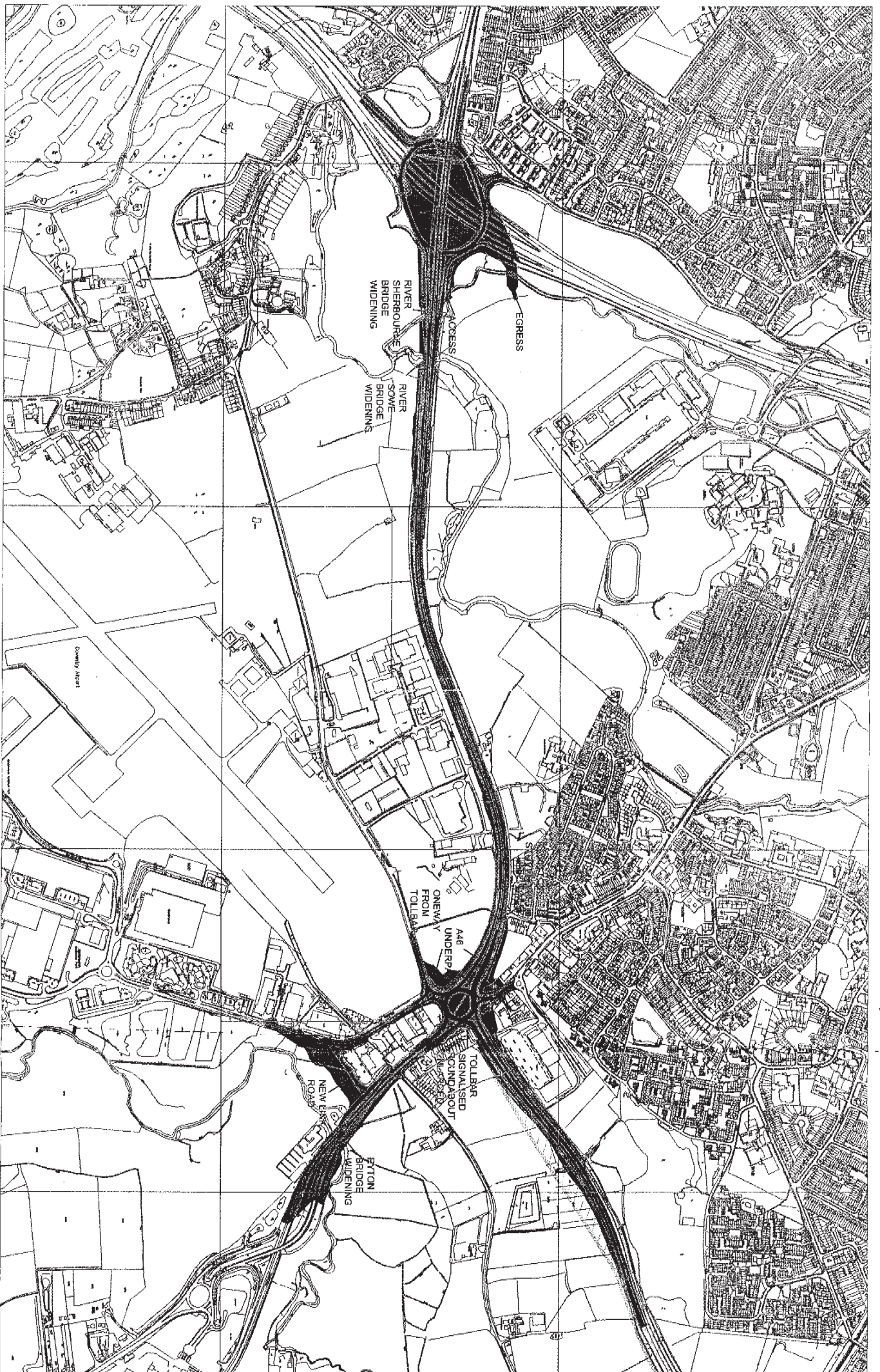


Figure 1 Map of the study area. Areas affected by the works are shaded. Reproduced from plans provided by White Young Green. Scale 1:10000

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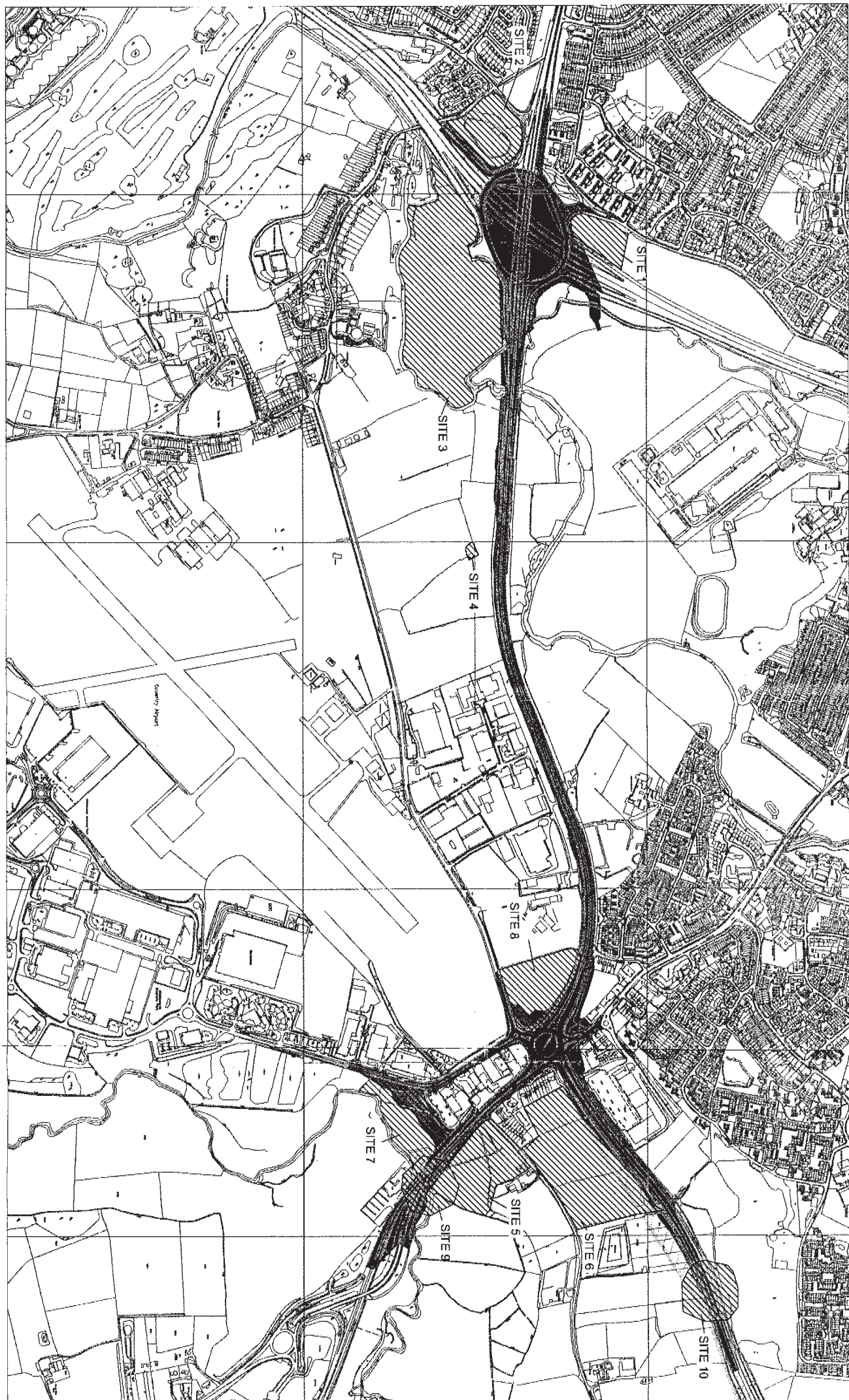


Figure 2 Archaeological Sites Identified by the assessment. Scale 1:10000

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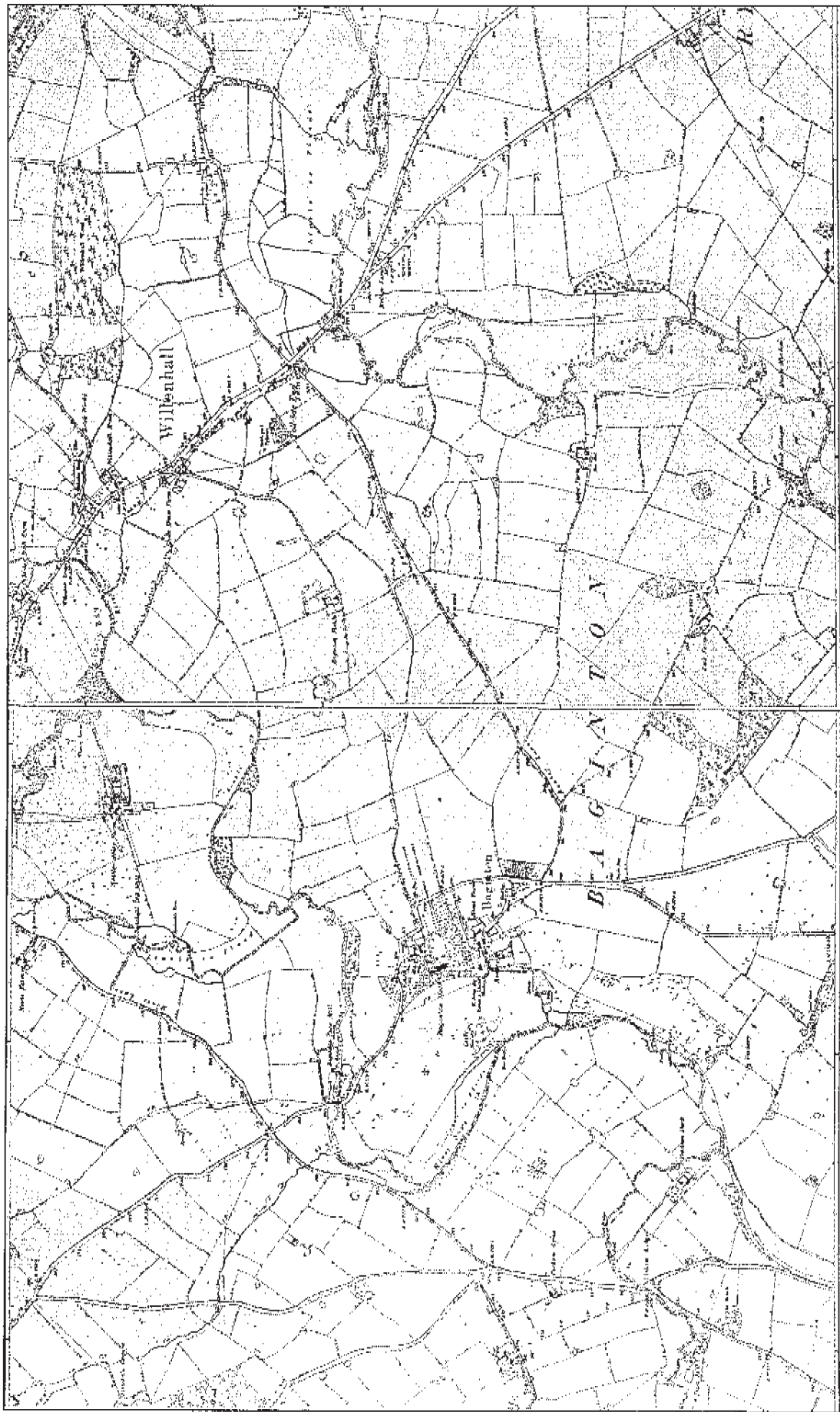


Figure 3 Extracts from the 1886 OS 1st edition maps of the study area (6" 27NW and 26NE). NTS.

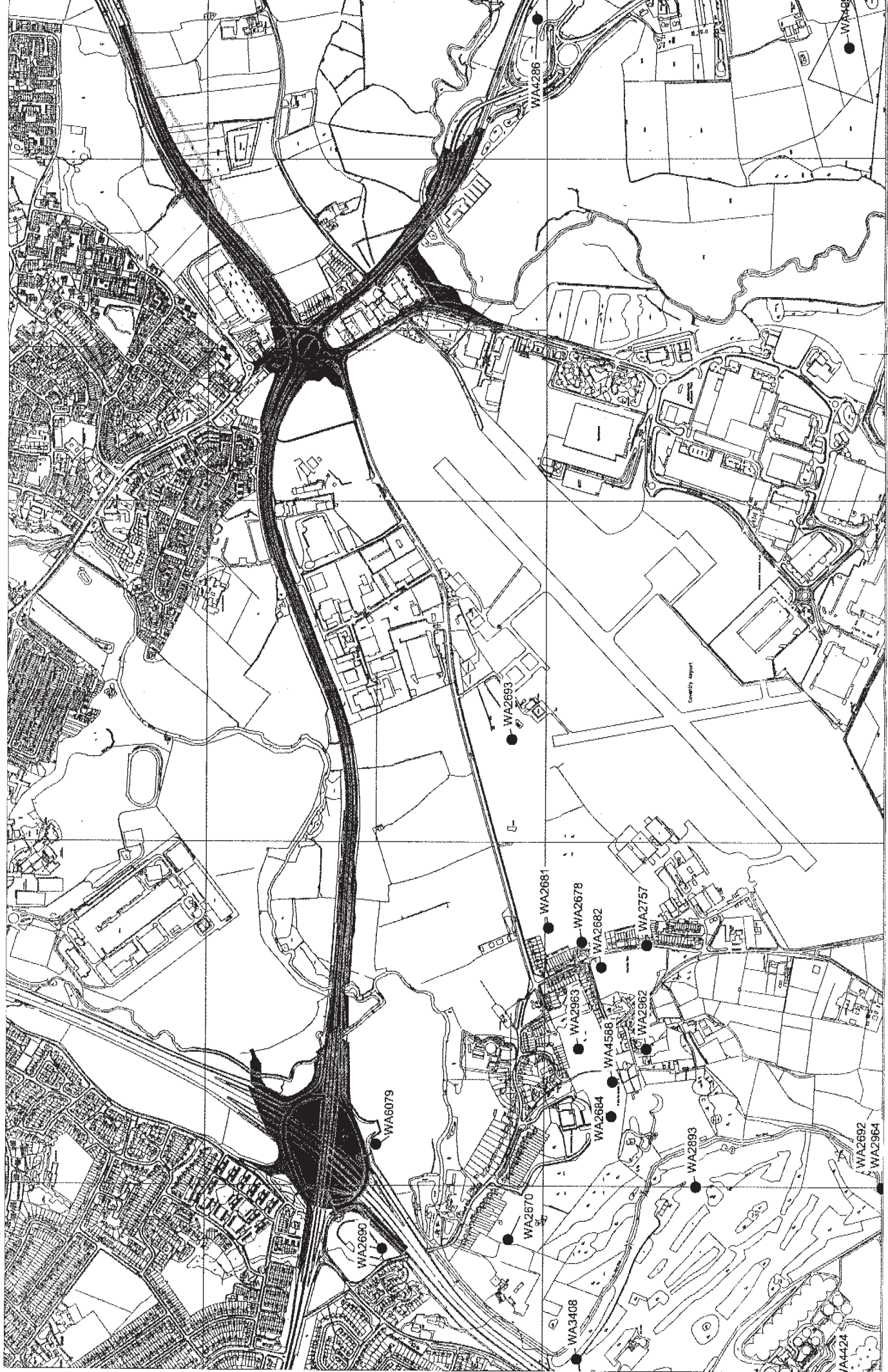
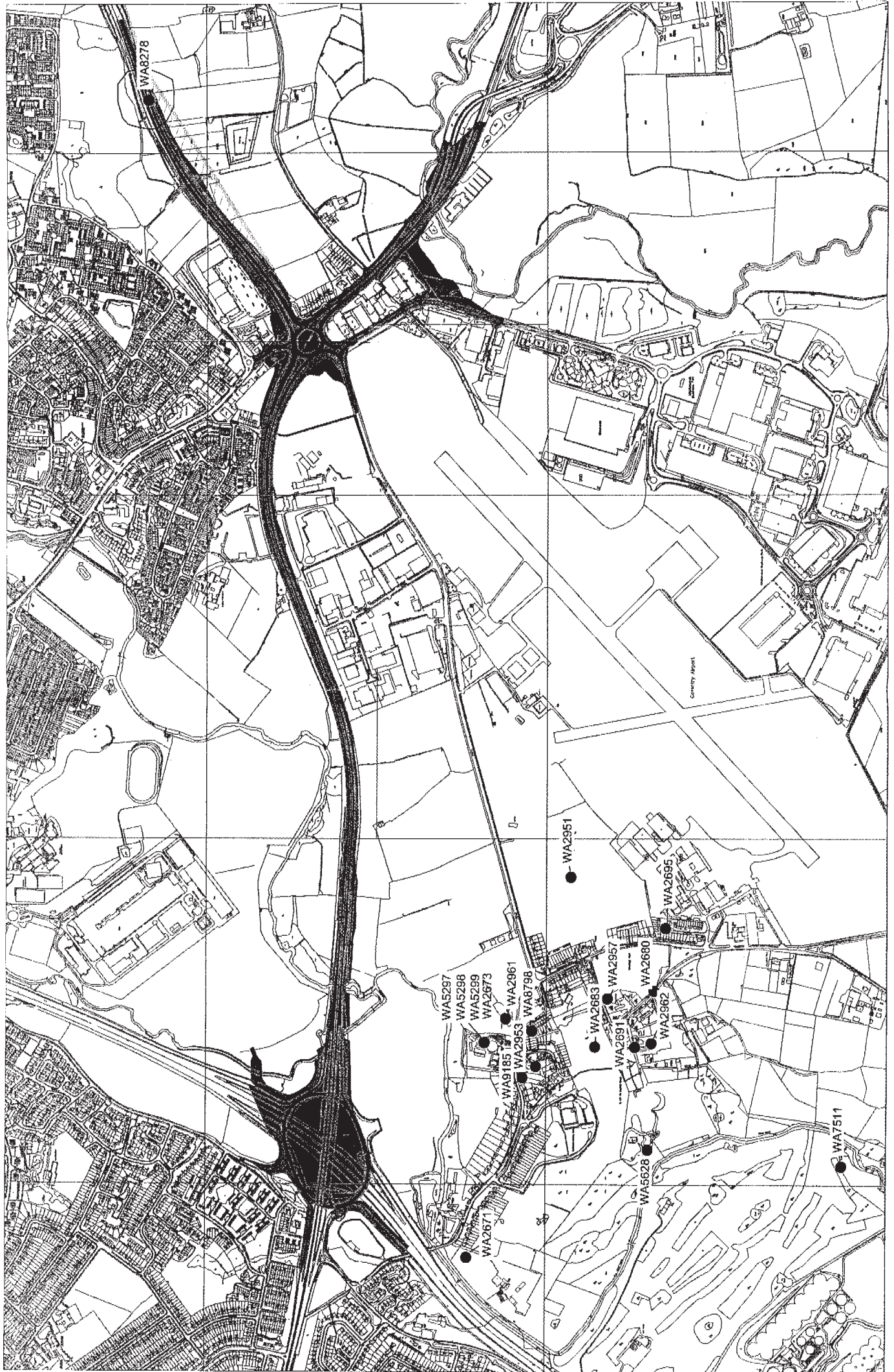


Figure 4 Prehistoric sites on the SMR. Scale 1:10000

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Figure 5 Roman sites on the SMR. Scale 1:10000

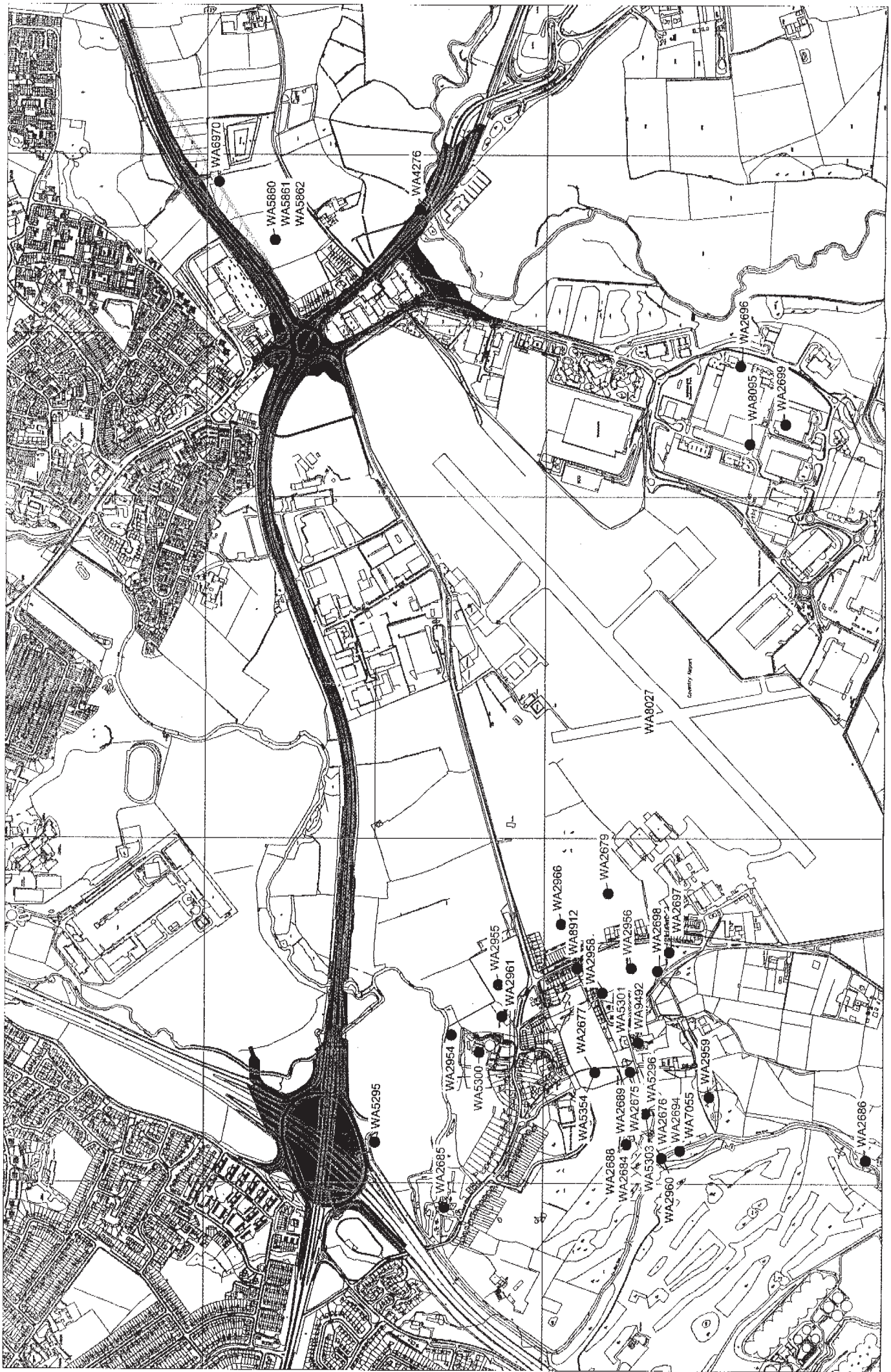


Figure 6 Medieval and later sites on the SMR. Scale 1:10000

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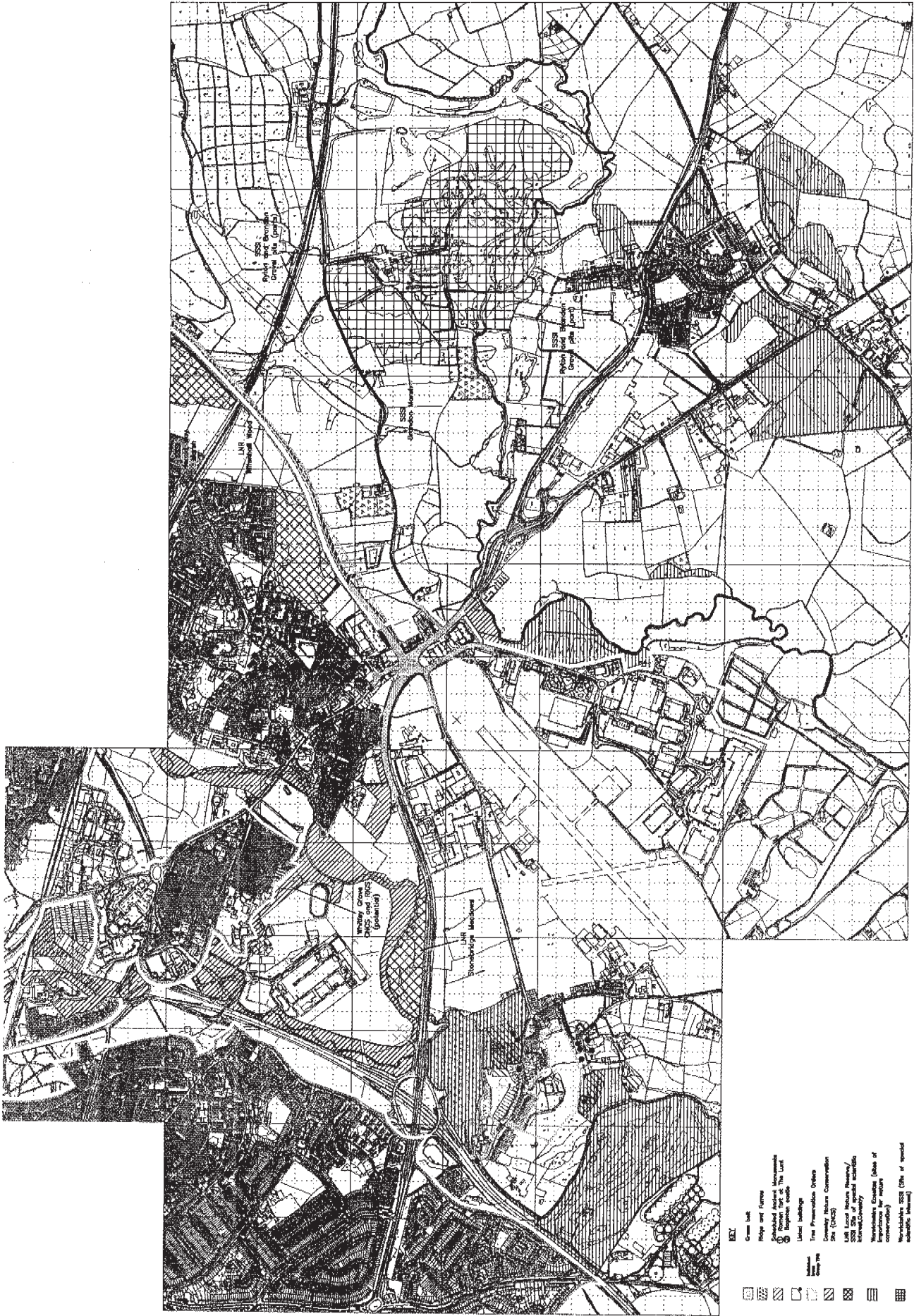


Figure 7 Nature reserves, conservation, SSSIs, and other sites within the study area. Reproduced from plans provided by White Young Green. Scale 1:20,000

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Figure 8 Fields studied during the walkover survey (25/09/03).
Scale 1:20000



Plate 1 Field 1, grassland nature reserve looking north-east.



Plate 2 Field 2 looking south towards River from area of ring ditch.



Plate 3 Field 8 looking east.



Plate 4 Field 12 looking north-west.

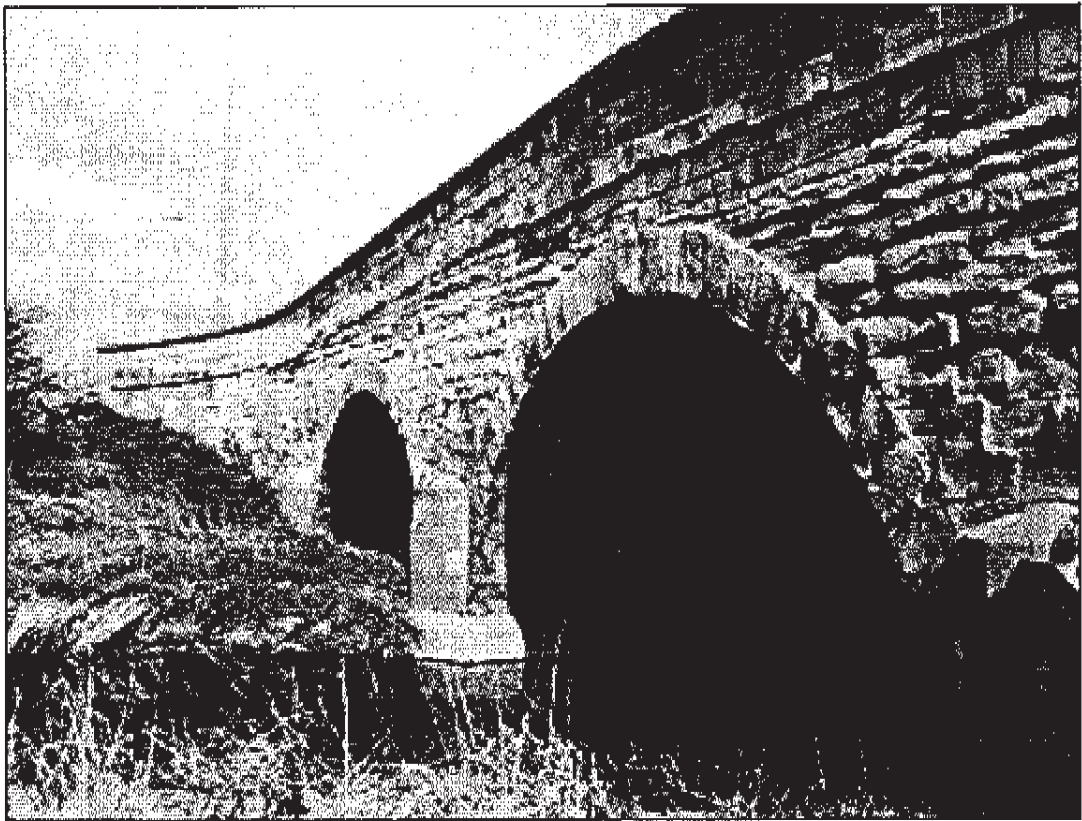


Plate 5 Part of the Grade II listed Ryton Bridge.



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