

A45/A46 Tollbar End Improvement Environmental Statement Volume 2



Part 9: Cultural Heritage

December 2008

Report no: BM01157 – NH – 0301 – 09

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Author: Gail Stoten

Checker: Fay Lagan

Approver: Jim Hunter

Report No. BM01157 – NH - 0301 - 09

Issue Status

Revision	Status	Date
09	For Review	December 2008

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Foreword

The Tollbar End roundabout is a strategic junction on the UK trunk road network, to the south of Coventry. The junction serves as the hub for a number of the traffic movements between the M40, M42, M45, M6, M1 and M69 motorways, and provides a link for the movement of vehicles between London and the Midlands. The junction also facilitates the movement of local traffic, in particular to Coventry airport and the nearby businesses and industries. The Scheme would offer significant improvements to both strategic and local traffic, as it would increase the capacity of the A45/ A46 Tollbar End Roundabout, enabling traffic to flow more easily through the junction, reducing rat running in southern Coventry.

The need for an improvement scheme for Tollbar End Junction was highlighted in the 1994 'A45 Scheme Identification Study'. In 1998 the Government published 'A New Deal for Trunk Roads in England'. This identified that the A45 / A46 Tollbar End Junction as a key junction on the strategic highway network that experiences considerable traffic congestion, delays and safety problems. The Scheme was included in the Government's 'A New Deal for Trunk Roads in England (1998)' as a scheme for consideration.

The Scheme was subject to a Public Consultation in 2001 and was entered into the Targeted Programme of Improvements (TPI) in July 2003. Further design work and studies have been undertaken and a new Preferred Option was proposed in September 2006. This proposed Scheme was presented at a locally held public exhibition in March 2007.

As required by European and UK legislation, an Environmental Impact Assessment of the Preferred Option has been undertaken. This is a means of drawing together in a systematic way an Assessment of the project's likely significant environmental impacts.

The results of the Assessment are presented in this Environmental Statement (ES), which is presented as a multi-volume document:

- Volume 1A presents the Scheme and summarises the environmental effects and any mitigation measures;
- Volume 1B contains the figures and drawings referred to in Volume 1A;
- Volume 2 is a series of 12 specialist reports providing the detailed Assessments underlying Volume 1A.

This specialist report, Volume 2, Part 9 (Cultural Heritage) details the Assessment of the Cultural Heritage effects.

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1 Introduction

1.1 General

1.1.0.1 This report provides information on the effects on cultural heritage associated with the proposed A45 / A46 Tollbar End Improvement Scheme (hereafter referred to as 'the Scheme').

1.2 The Proposed Scheme

1.2.0.1 The Tollbar End roundabout is a strategic junction on the trunk road network, near Coventry. The junction facilitates the movement of vehicles between London and Coventry and services movement between the M40, M6, M1, M42, M45 and M69 motorways. The junction also facilitates the movement of local traffic, in particular to Coventry airport and the nearby businesses and industries. A location plan showing the position of the Scheme on the network is shown in Figure 1.1.

1.2.0.2 The Scheme is situated partially within Coventry City limits and partially within the county of Warwickshire. The Scheme would provide a dual 3-lane bypass to follow the existing A45 line between Stivichall Junction and Tollbar End roundabout. The Tollbar End roundabout would be improved to a grade-separated junction with an underpass between the A45 Stonebridge Highway and the A46 Coventry Eastern Bypass. The Scheme also includes improvements to the northbound off-slip on the A46. A plan of the Scheme is shown in Figure 1.2.

1.2.0.3 The A45 / A46 Tollbar End Improvement Scheme comprises the following elements:

- Grade-separation of the Tollbar End roundabout, by construction of a new dual two-lane underpass connecting the A46 Coventry Eastern Bypass to the eastern end of the A45 Stonebridge Highway;
- Construction of two single span structures to accommodate the grade-separation;
- Enlargement of Tollbar End roundabout, with improved traffic signal controls;
- Construction of a new signalised junction at the intersection of Siskin Drive and Rowley Road;
- Asymmetrical widening to the south of the existing A45 Stonebridge Highway between the Tollbar End roundabout and Stivichall Junction (approximately 1.9 km west of Tollbar End), from dual two-lane carriageway to dual three-lane carriageway;
- Addition of sign gantries (3 no.) on the A46 northbound approach to Stivichall Junction and on the A45 Stonebridge Highway (4 no.); and,
- Construction of a new footbridge over the River Sowe to accommodate the repositioning of the combined footway / cycleway as a result of carriageway widening works.

- The proposals would also include noise fencing, landscaping and improved drainage measures to minimise the effects on the surrounding area.

1.3 Methodology

1.3.0.1 The Cultural Heritage Assessment considers three sub-topics: archaeological remains, built heritage and historic landscapes:

- **Archaeological remains**, considered in Chapter 2, comprise artefacts, monuments, features and deposits, both visible and buried. Extant buildings and sites that are of interest principally for their built structures are generally considered in the historic buildings section. Features, such as field systems, which are an integral part of the visible landscape, are considered in the historic landscape section;
- **Historic buildings**, considered in Chapter 3, comprise designed structures of historic value, including structures such as boundary posts and bridges. The remains of structures which survive below ground level or in a form which bears little similarity to their original form (i.e. settlement earthworks) are considered in the archaeological remains section. Very commonly occurring built structures, such as fences, which are an integral part of the visible landscape, are considered in the historic landscape section; and,
- **Historic landscapes**, considered in Chapter 4, comprise all areas within a defined Study Area around the Scheme, as all of the English landscape has been modified by past human activity, and so can be considered as being historic to some degree. Specific assets, such as individual monuments and built structures, are not considered in this section, but in the archaeological remains and historic buildings sections. However the time depth that they indicate, if visible, has been taken into account when assessing the historic depth of a landscape.

1.3.0.2 Each individual heritage asset has been assigned to the most appropriate sub-topic and the impact of the Scheme upon it assessed in that section and no other. This is to ensure that no double-counting of cultural heritage assets occurs. All sub-topics have been considered to be of equal worth in this Assessment.

1.3.0.3 The effects of the Scheme on each of the three sub-topics are discussed separately in Chapters 2, 3 and 4. Whilst it is recognised that numerous overlaps exist between the three sub-topics, they are considered in separate sections as the Assessments of value, impact and mitigation require different, specialised approaches. However, the broad structure of the Assessment for each sub-topic is the same, and is described in Section 1.2 below. The effects of the Scheme on the cultural heritage resource as a whole are summarised in Chapter 5 - Conclusions and Summary, which brings together overall Assessments of the effects within each of the sub-topics.

1.3.0.4 The Assessment of effects has followed the guidance contained in Highways Agency document HA 208/07: Environmental Topics, Department for Transport Design Manual for Roads and Bridges (DMRB) 11.3.2, Cultural Heritage (Highways Agency 2007) (henceforth referred to

as HA 208/07). The basic methodology detailed in this guidance can be summarised as:

- Assess the Value of the asset;
- Assess the Magnitude of the Impact on the asset; and,
- Assess the Significance of the Effect, bringing together the Value of the asset and the Magnitude of the Impact upon it.

1.3.0.5 Additional guidance contained in *Assessing the Affect of Road Schemes on Historic Landscape Character* (Highways Agency 2008) has been used in the Historic Landscape sub-topic.

1.3.0.6 The methodologies by which the value of the asset and the magnitude of the impact upon it are detailed in the chapters for archaeological remains, built heritage and historic landscape below (Chapters 2, 3 and 4 respectively), as they are tailored to each sub-topic. General principles have been applied to the assignment of values in each sub-topic, such as reference to any designations that they are covered by, and their value to the quality and understanding of the country's cultural heritage resource.

1.3.0.6 Common factors are also present in the Assessment of the magnitude of impacts, although again detailed methodologies are found in each of the chapters for the sub-topics (Chapters 2, 3 and 4). The impacts were assessed against a baseline of a theoretical "do-nothing" situation, which would happen if the Scheme were not pursued. The magnitude of an impact was assessed by reference to its severity, based on the principle that physical preservation is preferred. Hence, the worst impact would be the physical destruction of the resource and other types of impact, such as impacts upon setting, context or amenity, would be considered of lesser magnitude as they are considered reversible and do not destroy the resource itself. The proportion of an asset that would be lost may be a consideration where homogeneous resources are present, but the capacity of an asset to retain its character after sustaining damage was also considered. The magnitude of the impact was assessed without regard to the value of the resource, as this was considered when determining the significance of the effect. Impacts could be positive or negative; direct or indirect; short, medium or long term; temporary or permanent; and cumulative. Impacts may affect assets materially, or their settings.

1.3.0.7 Once the value of the assets and the magnitude of the impacts (after mitigation) had been determined, the significance of the effect on the asset was assessed using the table below, which is based on Table 5.1 in HA 208/07. Where the table gives choices of significance, professional judgement was applied to decide which is appropriate, in accordance with guidance given in HA 208/07. The significance of the effect can be either beneficial or adverse.

Table 9.1 Significance of effects matrix

		Magnitude of Impact				
		No change	Negligible	Minor	Moderate	Major
Value of Asset	Very High	Neutral	Slight	Moderate/ Large	Large/ Very Large	Very Large
	High	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/ Very Large
	Medium	Neutral	Neutral/ Slight	Slight	Moderate	Moderate/ Large
	Low	Neutral	Neutral/ Slight	Neutral/ Slight	Slight	Slight/ Moderate
	Negligible	Neutral	Neutral	Neutral/ Slight	Neutral/ Slight	Slight

1.3.0.8 As mentioned above, the overall significance of the effect on the cultural heritage resource is considered in Chapter 5: Conclusions and Summary, along with a statement of confidence.

2 Archaeological Remains

2.1 Introduction

- 2.1.0.1 Archaeological remains may include upstanding remains, earthworks, buried structures and artefact scatters. Material, such as peat deposits, with the potential to contain palaeoenvironmental evidence (e.g. pollen grains or insects) may, where it is associated with other evidence of past human activity, also be useful in providing information concerning past human environments and so can be considered as archaeology.

2.2 Relevant Legislation and Guidance

- 2.2.0.1 Legislation concerning the statutory protection of archaeological features comprises the Ancient Monuments and Archaeological Areas Act (1979) and the Hedgerow Regulations (1997). The Hedgerow Regulations do not apply to Highways Agency road schemes, although the value of hedgerows (identified as important through their criteria) is recognised when assessing the impacts and effects of schemes.
- 2.2.0.2 National Planning Policy Guidance (PPG) concerning the handling of archaeological remains and discoveries under the development plan and control systems is provided in *PPG 16: Archaeology and Planning* (1990). Legislation concerning the Assessment of environmental effects is also contained in the Highways Act 1980.
- 2.2.0.3 The Regional Spatial Strategy for the West Midlands (adopted June 2004), the Coventry Development Plan (adopted December 2001) Saved Policies, and the Warwick District Local Plan (adopted September 2007) contain policies on archaeological remains, which are of relevance to the Scheme. These policies, and the compliance of the Scheme with them, are discussed in this ES, Volume 2 Part 6: Policies and Plans.
- 2.2.0.4 This chapter has been produced in accordance with HA 208/07, specifically Annex 5, Cultural Heritage Sub-Topic Guidance: Archaeological Remains.

2.3 Methodology

2.3.1 Study Area

- 2.3.1.1 The Scheme footprint comprises the Scheme, temporary works and flood compensation areas. The Study Area comprises an area 250m wide around the Scheme footprint. Archaeological sites in the Study Area, and in the wider vicinity where relevant, are numbered in the text, starting **1**, prefixed with '**A**'. The entire visual envelope, as defined in Volume 2 Part 7: Landscape Effects; and the Assessment area used in Volume 2 Part 14: Noise and Vibration have also been considered when assessing the possible impacts of the Scheme upon the settings of statutorily protected archaeology.

2.3.2 Mitigation Strategy

2.3.2.1 In addition to mitigating specific impacts, the Scheme has been designed to minimise impacts upon archaeological remains. The objectives of mitigation with regards to archaeological remains are to:

- Minimise the detrimental physical effects of the Scheme upon archaeological remains, as far as is reasonably practicable;
- Minimise the effects of the Scheme on archaeological remains in terms of detrimental impact through visual intrusion, noise and ambience; and,
- Maximise the gains in knowledge and research benefits that would accrue from a programme of archaeological investigation, where sites of archaeological interest are to be disturbed by the Scheme, in line with the West Midlands Regional Research Framework for archaeology.

2.3.2.2 *Planning Policy Guidance Note 16: Archaeology and Planning* (PPG 16) sets out a presumption in favour of the physical preservation of nationally important archaeological remains *in situ*. Where preservation *in situ* through design is not practicable, or the importance of the resource does not merit it, the identified impacts would require mitigation through a programme of archaeological investigation, recording, analysis, interpretation and appropriate dissemination of the results.

2.3.2.3 A detailed strategy (termed the Detailed Archaeological Design), defining how these objectives would be met, would be prepared by the Employer's Archaeologist, for approval by the Employer, following consultation with English Heritage, the Warwickshire County Council Planning Archaeologist, and the Coventry City Council Planning Archaeologist. The Archaeological Design would be prepared prior to construction of the Scheme.

2.4 Assessment Methodology

2.4.1 Assessment of Value

2.4.1.1 The Assessment of an asset's value has been determined using Table 9.2 below (based on Table 5.1 of Annex 5 in HA 208/07) which is governed by the general principles outlined in Section 1.3 Methodology.

Table 9.2 Criteria for Assessing Archaeological Remains Value

Value of Resource	Description
Very high	World Heritage Sites (including nominated sites) Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives.
High	Scheduled Monuments (including proposed sites). Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives.
Medium	Designated or undesignated assets that contribute to regional research objectives.
Low	Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.
Negligible	Assets with very little or no surviving archaeological interest
Unknown	The importance of the resource has not been ascertained

2.4.2 Assessment of Impact Magnitude

2.4.2.1 The Scheme may impact upon archaeological remains both during its construction, and subsequently during its operation and maintenance. The impacts, which would occur without mitigation, are briefly considered in Section 2.8: Potential Impacts on Archaeological Remains. Impacts are then assessed taking into account mitigation and enhancement, in Section 2.10: Impacts Following Mitigation. The impacts may take a variety of forms, including:

- Total or partial loss of archaeological remains, either may result from permanent or temporary land-take for the Scheme;
- Effects on the setting, context and access of archaeological remains, both visually and with respect to noise generated by the Scheme;
- Effects on the physical and visual cohesiveness of archaeological remains due to severance caused by landtake for the Scheme; and,
- Long term effects of compression on a buried site that has been covered.

2.4.2.2 The magnitude of an impact has been determined using Table 9.3, below, which is based on Table 5.3 in Annex 5 of HA 208/07. Impacts were classified as positive or negative; permanent or temporary; short, medium or long term; constructional or operational; direct or indirect, or cumulative.

Table 9.3 Criteria for Assessing Impact Magnitude (Archaeological Remains)

Magnitude of Impact	Description of Impact
Major	Change to most or all key archaeological materials, such that the resource is totally altered Comprehensive changes to setting
Moderate	Changes to many key archaeological materials such that the resource is clearly modified Considerable changes to setting that affect the character of the asset
Minor	Changes to key archaeological materials, such that the asset is slightly altered Slight changes to setting
Negligible	Very minor changes to archaeological materials, or setting
No change	No change

2.4.3 Assessment of Significance of Effects

2.4.3.1 Having defined the criteria by which both the value of the archaeological remains and the magnitude of impact can be assessed, the significance of any effects upon the archaeological remains was assessed, using Table 9.1 above.

2.4.4 Data Sources and Surveys

2.4.4.1 Documents which have been produced during the previous stages of the Scheme development process comprise:

- An archaeological Desk-Based Assessment of the proposed route options (JSAC 2001); and,
- An Archaeological Desk-Based Assessment and Survey, A45/A46 Tollbar End Improvement (ULAS 2003) which was produced as a draft Stage 3 DMRB Assessment for a previous Scheme design.

2.4.4.2 Documents which have been produced specifically to inform this stage of Assessment comprise a programme of archaeological recording during geotechnical works within and in the vicinity of the Scheme footprint (CA 2006).

2.4.4.3 The main repositories consulted during the production of these documents and the present Environmental Statement comprised (a list of sources cited in this report is given in Appendix 9.1):

- English Heritage's Register of Scheduled Ancient Monuments (EH);
- National Monument Record Archaeological Database (NMRAD);
- Warwickshire Historic Environments Record (WHER) - a visit was made in November 2005 to check for new entries to the database,

and additional searches were completed in September 2008 and November 2008;

- Coventry Historic Environments Record (CHER) - searches were made in November 2005 and September 2008;
- All relevant aerial photographs held by the National Monuments Record (Swindon) were viewed in September 2006 and November 2008 to check for previously unknown archaeological sites which might have been visible as cropmarks;
- Warwickshire Record Office - visits were made to view all readily available historic maps, including Estate maps, Tithe Maps and Ordnance Survey maps to provide information on field names, former land use, the locations of former field boundaries, stream channels, buildings and ponds, as well as other archaeological features;
- National and Regional Planning Legislation; and,
- Regional Spatial Strategy.

2.4.4.4 Site walkover surveys were also made on 4 October 2006, 9 October 2008 and 25 November 2008, to assess the visible archaeological resource of the Scheme footprint.

2.4.5 Consultations

2.4.5.1 Consultations made with statutory bodies before the current Scheme was proposed include:

- English Heritage West Midlands Regional Planner - a reply was received by letter dated 10th March 2005.

2.4.5.2 Consultations made for the current Scheme comprise:

- Coventry City Council Planning Archaeologist, during a meeting on 21st October 2005;
- Warwickshire County Council Planning Archaeologist, during a meeting on 21st October 2005,;
- A site visit with Coventry City Council Planning Archaeologist and Warwickshire County Council Planning Archaeologist 20th October 2006; and,
- Further subsequent consultations in November and December 2008 with both the Coventry City Council Planning Archaeologist and the Warwickshire County Council Planning Archaeologist.

2.5 Existing Conditions

2.5.0.1 This Section describes the baseline conditions. The Archaeology Gazetteer, summarising sites referred to in the following text, is presented in Appendix 9.2.

2.5.0.2 There are no Scheduled Monuments present within the Scheme footprint. Two Scheduled Monuments lie within the study area and visual envelope of the Scheme; The Lunt Roman Fort lies 200m to the south of the Scheme (Figure 9.2, **A27**, Figure 9.3) and King's Hill deserted medieval village lies

50m to the north-west (Figure 9.3, Figure 9.9, **A31**). Another Scheduled Monument, the site of a motte and bailey castle and associated area of deserted medieval settlement, lies to the west of the modern village of Baginton (Figure 9.2, **A30**) and is considered in a discussion of the medieval archaeology in the wider area of the site, in Section 2.5.7. This monument does not lie within the Study Area, the Scheme would not be visible from it, and it does not lie within the noise Assessment area.

2.5.1 Archaeological Works

- 2.5.1.1 A desk-based Assessment of route options (Figure 9.1, **A1**; JSAC 2001) and a Stage Three Archaeological Assessment, including a non-systematic walk-over survey, (Figure 9.1, **A2**; ULAS 2003) were carried out for the area before the current Scheme was proposed.
- 2.5.1.2 A programme of archaeological recording was carried out during the excavation of ten geotechnical trial pits along the route of the Scheme (Figure 9.1, **A3.1-A3.11**, Figures 9.11-9.14; CA 2006). No archaeological deposits were identified during these works.
- 2.5.1.3 Walkover surveys were undertaken within the Scheme footprint in 2006 and 2008 (Figure 9.1, **A4**), during which a visual inspection was made of all areas of the Scheme footprint and associated works areas.

2.5.2 Previous Archaeological Works

- 2.5.2.1 Two areas in the vicinity of Stivichall Junction were excavated in 1968. Neolithic pits, a ring ditch and evidence of a post-medieval barn were uncovered to the south of the roundabout (Figures 9.2 and 9.11, **A5**; Hopley 1971) and Neolithic pits and a ditch were uncovered to the southwest (Figures 9.2 and 9.11, **A6**; Ford 1971).
- 2.5.2.2 In 1971, an area to the southeast of the deserted medieval village at King's Hill was excavated, uncovering evidence of a strip field headland of probable medieval date (Figures 9.2 and 9.9, **A33**; Ford 1971). Later archaeological works have been carried out within the Scheduled area of the former village, where an evaluation trench was excavated in 1997 (Figures 9.1 and 9.9, **A31**; WHER), and immediately to the north, where a watching took place in 1994 (Figures 9.2 and 9.9, **A45**; WHER).
- 2.5.2.3 An archaeological watching brief was carried out in 1997, in another area of suspected deserted medieval settlement, at Finham Sewage Treatment Works (Figures 9.2 and 9.9, **A34**; WHER). No archaeological features or finds were revealed during this work, casting doubt upon the presence of a former medieval settlement in that location.
- 2.5.2.4 An area to the northeast of the Tollbar End roundabout was field-walked and subsequently partially excavated, revealing evidence of a Roman settlement (Figures 9.2 and 9.14, **A7**; Rylatt 1987). The work was carried out by Coventry Museum in advance of the construction of the A46.
- 2.5.2.5 A watching brief was carried out to the southeast of the Tollbar End roundabout in 2002 as part of the construction of a pipeline (Figure 9.2, **A8**;

BUFAU 2002). No finds or features of archaeological interest were uncovered in the vicinity of the Scheme.

2.5.3 Topography, Geology and the Palaeoenvironment

2.5.3.1 The southwesternmost section of the Scheme passes through the southeast facing slope of King's Hill, a local highpoint, in a cutting. Northeast from there, the A46, the line of which the Scheme follows, crosses the dip between King's Hill and another local highpoint to the east on an embankment. The A46 then cuts through the northwestern slope of the second high point in a cutting, before moving north-east onto the flood plain of the River Sowe, from which it is raised by another embankment.

2.5.3.2 The Stivichall Junction lies on higher natural topography slightly above the floodplain but is still partly embanked. Moving east, the Scheme crosses the Rivers Sherbourne and Sowe, just to the north of their confluence. From the floodplain of the two rivers, the land within the footprint of the Scheme climbs then crosses a spur of land in a cutting. The land again drops down to the east, to below 70m, before rising up to cross the narrow plateau, between the Rivers Sowe and Avon, where the Tollbar End roundabout is located. The Scheme then continues along the line of the A46, to the northeast, along the southeastern slope of the ridge of land between the two rivers.

2.5.3.3 The underlying solid geology of the site comprises Tile Hill Mudstone Formation and Bromsgrove Sandstone Formation at the western end of the site and Mercian Mudstone at the eastern end. At the southwestern and eastern ends of the site, these basal deposits are overlain by glacial sands and gravels (Figure 9.2, BGS 1984). The southern part of the compound to the south of the main Scheme also lies on Glacial Sands and Gravels (Figure 9.2).

2.5.3.4 These deposits are crossed by two sinuous river valleys; those of the River Sherbourne and River Sowe, and the Scheme just encroaches into the valley of the River Avon. These valleys have associated gravel terraces and areas of alluvium (Figure 9.2). The locations of the three areas of alluvial deposits within the Scheme footprint have been plotted from the 1:50,000 geological map (Figure 9.2, BGS 1984). These are present where the A46 crosses the floodplain of the River Sowe at Finham (south of Stivichall Junction), a small area where a stormwater wetland encroaches into the valley of the Sowe north of the A45 Stonebridge Highway, and where the A45 Stonebridge Highway crosses the Rivers Sowe and Sherbourne at their confluence. The presence of alluvium extending just to the east of the latter area was identified during geotechnical works in 2006 (Figure 9.1, **A3.8**; CA 2006). Another area of possible alluviation recorded to the west of Tollbar End roundabout (CA 2006) is, due to its topographic location, most likely to be associated with the glacial deposits present in this area and so is probably not alluvium (Figure 9.1, **A3.9**; CA 2006)

2.5.3.5 It is considered that there is negligible potential for palaeoenvironmental remains of archaeological interest to be sealed beneath the small areas of alluvium mapped within the footprint of the Scheme.

2.5.4 Prehistoric

- 2.5.4.1 The route of one of the major rivers which drained the Midlands during the Lower Palaeolithic period, the River Bytham, ran through the area between Coventry and Rugby. This was probably one of the most important routes for the colonisation of the British Isles by its first Human inhabitants (Shotton Project). This river was obliterated by the Anglian Glaciation, around 478,000 years ago (Shotton Project). Stone implements of Palaeolithic date (no precise date assigned) have been recovered from gravel pits in the western part of the Study Area (Figures 9.2 and 9.10, **A9**; WHER), and a Palaeolithic hand axe was recovered from an area further to the northeast (Figures 9.2 and 9.10, **A10**; WHER).
- 2.5.4.2 Another probable prehistoric flint, a core of possible Mesolithic date, was recovered to the southeast of Tollbar End roundabout during a previous walkover survey (Figure 9.1, **A2.1**; ULAS 2003). No other finds were observed in this area at the time.
- 2.5.4.3 Two Neolithic sites are present in the vicinity of the Stivichall Junction. An area to the south of the roundabout was excavated prior to the construction of the bypass in 1968 (Figures 9.2 and 9.11, **A5**; Hoblely 1971). The earliest features in this area were a cluster of nine hollows, which were interpreted as Neolithic storage pits. Thirty-one shards of early Neolithic pottery were recovered from one of these features (Hoblely 1971, 2). An undated ring ditch, which was the focus of the excavation, was also present. No dateable material was recovered from the feature, but such monuments commonly date to the Late Neolithic or Early Bronze Age. This was one of two ring ditches seen on aerial photographs in this area.
- 2.5.4.4 Another area of Neolithic features was excavated at the same time, to the west of Stivichall Junction (Figures 9.2 and 9.11, **A6**; Ford 1971). These comprised pits from which fire-cracked stones, burnt clay and Neolithic pottery were recovered, and a shallow ditch 20m in length. This has been interpreted as an area of Neolithic settlement, enclosed by a ditch (WHER). Both of these areas of Neolithic activity were destroyed during the construction of the Stivichall Junction and associated roads, although their limits were not defined and there may have been potential for other features of Neolithic date to have been present in the vicinity. However, proposed works in this area would lie in areas where any archaeological remains are very likely to have been destroyed by existing road construction. It is considered that there is negligible potential for features associated with the two excavated Neolithic sites in the vicinity of Stivichall Junction to survive within the footprint of the Scheme.
- 2.5.4.5 A small pot of probable Bronze Age date was uncovered close to the southwestern area of the Scheme, at King's Hill (Figures 9.2 and 9.9, **A34**, WHER). This pot, thought to be a 'Pygmy vessel', was uncovered during the excavation of a deep drain by workmen in the 1930s. A struck flint was recovered from the vicinity of the vessel findspot, but this find has not been precisely dated (Figures 9.2 and 9.9, **A35**; WHER).
- 2.5.4.6 The findspot of a flint of Neolithic or Bronze Age date is recorded to the south of the Scheme, at Coventry Airport (Figure 9.2, **A36**; WHER). This find may have been the origin of a record of Neolithic or Middle Bronze Age

flint being recorded at some point within a square kilometre to the west (Figure 9.2, **A37**; NMR), although this may be different material.

2.5.4.7 As mentioned above, gravel terraces of the Avon Valley and its tributaries lie within the footprint of the Scheme and a band of glacial sands and gravels also crosses the footprint (Figure 9.2). Areas of such geology are known to have potential for evidence of prehistoric activity (Hingley 1996, 21). In the wider vicinity, a site of Iron Age date has recently been found on an area of gravel terrace, 1.75km to the southeast of the Scheme (Anna Stocks, pers. comm.). However, most areas of sand and gravel within the Scheme footprint have been disturbed by previous road construction. Only one area of permanent new land-take would be on glacial sand and gravel, and no archaeological features were observed in this area during the monitoring of geotechnical trial pits (Figures 9.1 and 9.13, **A3.9**; CA 2006). The proposed temporary compound area also lies partially within an area of glacial sands and gravel and partially on gravel terrace deposits. Three areas of stormwater wetland would be excavated in areas of gravel terrace or alluvium covered gravels.

2.5.4.8 As mentioned above, three areas of the footprint of the Scheme lie on areas of alluvium; those associated with the River Sowe to the southwest and east of the Stivichall Junction (Figure 9.2). The date at which the alluvium was deposited is not known but work in other parts of England shows that accumulation of alluvium frequently dates to the Iron Age and Roman periods, although much earlier instances are known (Dark 2000, 52). Prehistoric features are sometimes recorded beneath areas of alluvium. No archaeological features were observed in one of the areas to the east of the Stivichall Junction during the excavation of a trial pit in this area in 2006 (Figures 9.1 and 9.12, **A3.6**; CA 2006), and it is considered that there is negligible potential for such features to survive beneath these areas of alluvium within the Scheme footprint.

2.5.5 Romano-British

The Lunt Roman Fort, which is a Scheduled Monument, lies to the south of the Scheme, just encroaching into the study area (Figure 9.2, **A27**, Figure 9.3; EH). This fort was constructed between AD 60 and AD 64 and was used until the later 3rd century AD, with three main phases of occupation (Hobley 1971-3, 1975). Within the second phase defences, evidence of stables and a possible arena suggest that the fort may have been used by cavalry units. The fort was excavated in the 1960s and 1970s, and has now been partially reconstructed.

2.5.5.1 The gravel terraces of river valleys and glacial sand and gravel deposits are common locations for Roman activity and many rural Roman sites have been identified from aerial photography on the Avon Valley gravels (Booth 1996, 55, Booth 2002, 7). Evidence of a Roman settlement has come from an area to the northeast of the Tollbar End roundabout (Figures 9.2 and 9.14, **A7**, Rylatt 1987). Field walking here recovered a localised scatter of Roman pottery and building material. Part of this site was subsequently excavated, uncovering two phases of activity dating from the 2nd to 3rd centuries and recovering pottery including samian and other fine wares. Much building material, comprising daub, roofing tile and brick or tile was recovered, although the remains of the structure they came from were not

located, suggesting the presence of a high status structure or structures in the vicinity (Rylatt 1987, 62).

- 2.5.5.2 Part of a 1st-century brooch and a lead bead or weight were also recovered from the area to the northeast of the Tollbar End roundabout (Figures 9.2 and 9.14, **A11**; WHER). Eight Roman coins and a metal fitting have been recovered to the southwest of the Roman settlement (Figures 9.2 and 9.14, **A12**; WHER), most of which were of 4th-century date, although they included a coin of the 2nd century and a coin of unknown date (WHER).
- 2.5.5.3 The presence of the Roman settlement (Figures 9.2 and 9.14, **A7**) suggests that there may be some potential for such Roman features as associated field system ditches within the area of new land-take to the east of the Tollbar End roundabout. The metal objects recovered in this area (Figures 9.2 and 9.14, **A11** and **A12**) may have resulted from chance losses, and may well have been recovered from a wider area than the findspot recorded by the WHER.
- 2.5.5.4 In the wider vicinity, at least one enclosure which had evidence for Romano-British occupation was uncovered 1.65km to the southeast of the Scheme, at the former Peugeot Citroen Ryton Plant (Anna Stocks, pers. comm.).
- 2.5.5.5 Roman finds have also come from an area to the southwest of the Stivichall Junction (Figures 9.2 and 9.10, **A13**; WHER). Finds comprised two cremation urns, a bronze jug and some fragments of a samian jug. The finds are thought to have come from a quarried-away burial site (WHER). They have been dated to between AD 30 and AD 45, suggesting that they may comprise Roman imports deposited in the Late Iron Age or that they were of some antiquity at burial. All proposed works in the vicinity of the findspot lie within areas of likely previous disturbance resulting from road construction.
- 2.5.5.6 A sherd of Roman pottery was recovered from a field to the southwest of King's Hill, following ploughing (Figures 9.2 and 9.9, **A35**; WHER). No further information was available, but this may have resulted from the manuring of fields in the vicinity of another area of Roman settlement recorded further to the southwest, just beyond the study area.

2.5.6 Anglo-Saxon

- 2.5.6.1 A mill which stood to the south of the Stivichall Junction was recorded in the Domesday Book of 1084, suggesting that it was probably of Saxon origin (Figures 9.2 and 9.10, **A14**). The village of Baginton, whose historic core lies outside the Study Area, was also recorded in the Domesday Book (Figure 9.2, **A28**; VCH 1951).
- 2.5.6.2 Also in the wider vicinity, a cemetery including cremation burials and inhumations of 5th-6th century date was uncovered to the southeast of Baginton, outside the Study Area, in the 1930s (Figure 9.2, **A29**; WHER). Over 48 early Anglo-Saxon sites are recorded in the Avon Valley, many of which are cemeteries (Ford 1996, 60).

2.5.7 Medieval

- 2.5.7.1 To the north of the southwestern part of the Scheme lies the site of King's Hill deserted medieval settlement (Figures 9.2, 9.3 and 9.9, **A31**). Remains in this area comprise a track way, house platforms, ridge and furrow earthworks, and subsidiary trackways (WHER). Two areas of this site are Scheduled. This area of former settlement was identified during works prior to the construction of the A46. Excavation was carried out in the area threatened by road construction, which uncovered postholes indicating that the strip fields in this area were initially laid out by a line of posts, but these works uncovered no remains of settlement (Figures 9.2 and 9.9, **A33**; WHER). The village has since been identified as that referred to in documentary sources as Hulle and King's Hulle, and is thought to have been the possible location of a grange of Stoneleigh Abbey.
- 2.5.7.2 A trial trench was excavated at Old King's Hill Cottage in 1997, prior to the construction of a stable, within the western part of the Scheduled area (Figures 9.2 and 9.9, **A31**; NMR). No structural remains were uncovered, but residual medieval and post-medieval pottery was recovered.
- 2.5.7.3 In 1990, a field to the southwest of King's Hill which had recently been pasture was ploughed. No house platforms had been recorded in this area, but pottery of the 13th, 14th and 15th century was recovered following the ploughing (Figures 9.2 and 9.9, **A35**; WHER). This has led to the suggestion that settlement once extended into this area.
- 2.5.7.4 The presence of another possible area of deserted medieval settlement to the southeast of King's Hill was suggested by documentary sources (Figures 9.2 and 9.9, **A38**; WHER). However, archaeological monitoring during topsoil stripping at Finham Sewage Treatment Works did not find any archaeological finds or features, and subsequent documentary research suggested a location further to the north for the former settlement.
- 2.5.7.5 The site of a medieval mill, Finford Mill, lies to the south of the Tollbar End roundabout, adjacent to the River Avon (Figure 9.2, **A15**; CHER) and the site of a 12th-century mill lies to the north of the Stivichall Junction (Figures 9.2 and 9.10, **A16**; CHER). These sites are known from documentary sources.
- 2.5.7.6 Excavations at the Lunt Roman Fort in the 1970s uncovered five or six medieval iron smelting furnaces, well above the Roman levels (Figure 9.2, **A27**; NMR), indicating medieval use of this area.
- 2.5.7.7 Several pieces of medieval metalwork have been recovered from an area to the east of the Tollbar End roundabout including four lead objects (Figures 9.2 and 9.14, **A17**; WHER), three bronze cauldron feet, a buckle, a fragment of decorative binding and a bronze lug from a vessel (Figures 9.2 and 9.14, **A18**; WHER). These are most likely to have been chance losses.
- 2.5.7.8 Ridge and furrow earthworks of possible medieval date have been recorded to the southeast of the Stivichall Junction (Figures 9.2 and 9.11, **A19**; JSAC 2001). No earthworks were observed in this location during the walkover survey on 4 October 2006 although areas of now-removed ridge and furrow earthworks were visible in parts of that area, and several other areas within the footprint of the Scheme, on historic aerial photographs

(Figure 9.5). Some of these areas are recorded on the WHER (Figure 9.2, **A39, A40, A41, A42**). These earthworks may have been of medieval origin.

- 2.5.7.9 Beyond the Study Area, the site of a motte and bailey castle and associated area of deserted medieval settlement lie to the west of the modern village of Baginton (Figure 9.2, **A30**; EH). The castle and deserted medieval settlement area are Scheduled. The Scheme would not be visible from these monuments.

2.5.8 Post-medieval

- 2.5.8.1 Evidence of a post-medieval barn and fence-line was uncovered, during the excavation of a ring-ditch to the south of Stivichall Junction. Evidence of the barn comprised pits and beam slots, which were thought to be of late 16th to early 17th-century date (Figures 9.2 and 9.11, **A5**; Hobley 1971).
- 2.5.8.2 Two post-medieval sites are present in the vicinity of the Tollbar End roundabout. The site of a pound is located to the north (Figures 9.2 and 9.13, **A20**; CHER). This is shown on 19th-century maps but is thought to be earlier. The site of a brickworks was probably located to the southwest (Figure 9.2, **A21**; CHER), suggested by the name *Brickyard Spinney* on 19th and 20th-century maps. Both these sites have now been demolished.
- 2.5.8.3 Post-medieval metalwork has been recovered by metal detectorists to the northeast of the Tollbar End roundabout. Material including a lead disk, a coin, two fittings and a lead bird-shaped sheet was found to the northeast of the reservoir (Figures 9.2 and 9.14, **A22**; WHER) and a bronze weight, ring, fragment of shoe buckle and lead cup were found to the north of Grange Farm (Figures 9.2 and 9.14, **A23**; WHER). These are likely to have been chance losses.
- 2.5.8.4 Post-medieval pottery was also recovered from the ploughed field to the southwest of the deserted medieval village at King's Hill (Figures 9.2 and 9.9, **A35**; WHER). The pottery was recovered from an area adjacent to the road, and occupation in this location may have continued into the post-medieval period.

2.5.9 Modern

- 2.5.9.1 Remains of walls were identified to the south of the A45 during the initial desk-based Assessment (Figure 9.1 and 9.12, **A1.1**; JSAC 2001). Buildings were depicted in this location on the First Edition Ordnance Survey map of 1886, but not the Baginton Tithe Map of 1841, suggesting the walls are of modern construction.
- 2.5.9.2 Mills and associated water management features are recorded at two of the mill sites mentioned above, then called Stivichall Mill (Figures 9.2 and 9.11, **A14**) and Baginton Mill (Figures 9.2 and 9.11, **A16**; CHER), on modern mapping (1888). These buildings and features may predate the modern period.

- 2.5.9.3 An ice house is recorded to the south of the Scheme, just north of Baginton (Figure 9.2, **A43**; WHER). This is thought to have been associated with Baginton Hall.
- 2.5.9.4 A modern boundary post lies to the north of the Tollbar End roundabout (Figures 9.2 and 9.13, **A24**; CHER). This was sited to mark an extension to the City of Coventry boundary to this point in 1932. As this structure is Locally Listed, it is considered in the *Historic Building* Section below.
- 2.5.9.5 Coventry Airport, which was formerly Baginton Airfield, lies to the south of the Scheme (Figure 9.2, **A25**; WHER). This was a municipal airfield developed before 1939, in conjunction with a manufacturing works located to the east. The former location of a barrage balloon is recorded to the east of the Tollbar End junction (Figures 9.2 and 9.14, **A44**; WHER).
- 2.5.9.6 Modern pottery was recorded immediately to the north-east of King's Hill deserted medieval village, during the archaeological monitoring of the excavation of a drain (Figures 9.2 and 9.9, **A45**; WHER). No features of this date were recorded during the works.

2.5.10 Undated

- 2.5.10.1 Undated hollows and bumps were identified in an area to the north of Stivichall Junction during the initial desk-based Assessment (Figures 9.1 and 9.11, **A1.2**; JSAC 2001). These features are likely to be related to the construction of the road junction. A similar area of slight earthworks which are also likely to have been associated with road construction was identified to the west of the Tollbar End roundabout (Figures 9.1 and 9.13, **A1.3**; JSAC 2001). No earthworks were visible in this area during the walkover survey on 4th October 2006 although slight earthworks may have been obscured by the vegetation present in this area. Results of geotechnical boreholes and test pits have shown that at least the north-eastern part of this area is covered by modern made ground containing brick fragments, thought to be a continuation of the road embankment to the north-east (Fugro 2004, Soil Mechanics 2006).
- 2.5.10.2 The lines of former enclosure boundaries are visible as slight earthworks in a field in a bend of the River Avon, to the north of the Scheme (Figure 9.2, **A26**; CHER).
- 2.5.10.3 An undated linear mark is recorded to the south of the proposed Scheme (Figures 9.2 and 9.12; **A32**; WHER). This is probably a modern path, but it has been suggested that it relates to the Lunt Roman fort, to the south-west. Proposed work in the area of the footprint of the Scheme towards which this mark is aligned, lie within the area disturbed during the construction of the currently present carriageway.
- 2.5.10.4 Undated ditches are recorded at the northwesternmost end of the study area (Figure 9.2, **A46**; WHER). No further information on these features was available, but it is possible that they were associated with an area of Roman settlement recorded 200m to the west (Figures 9.2 and 9.14, **A7**).
- 2.5.10.5 Two circular cropmarks and a linear cropmark were observed on an aerial photograph of 1945, to the northeast of the Tollbar End roundabout

(Figures 9.2 and 9.14, **A27**). These are discussed below in the *Historic Aerial Photograph* Section.

2.6 Historic Maps and Photographs

2.6.1 Estate Maps and Tithe Maps

2.6.1.1 Five maps which predate the Ordnance Survey cover parts of the footprint of the Scheme, details from which have been transposed onto Figure 9.4, which is based on the First Edition Ordnance Survey maps of 1886. Since the original searches, some of this data has been added to the Coventry Historic Environments Record.

2.6.1.2 The earliest of these maps is the 1773 Stivichall Estate Map, which depicts the area around Stivichall Junction. All of the field boundaries depicted on this source within the footprint of the Scheme have now been removed and no other features of interest were depicted. None of the fieldnames depicted are suggestive of archaeological sites being present within the area (Figure 9.4).

2.6.1.3 A later survey of Stivichall Parish of 1787 covers a slightly larger area and shows additional field boundaries and alternative field names (Figure 9.4). All boundaries depicted on this source within the footprint of the Scheme have also been removed. Field names in this area contain three elements which may suggest past land uses and structures. Two fields are recorded as *Bridge Field* and *Bridge Close*, but these are most likely to refer to the bridge over the River Sowe, which lies outside the footprint of the Scheme (Figure 9.4). One field has the element *Barn* in its name; *Barn Close*, to the south of King's Hill (Figure 9.4). Any barn present within this enclosure is likely to have been located further to the north, where the remains of a deserted medieval village are located. Excavation within the footprint of the Scheme during road construction in 1971 did not uncover structural remains (Figures 9.2 and 9.9, **A33**; WHER). A small pond is depicted in the southernmost area of this field, just to the south of the Scheme footprint (Figures 9.4 and 9.9). A field to the southeast of the Scheme was recorded as *Finham Park* (Figure 9.4). No park features are recorded within the footprint of the Scheme.

2.6.1.4 A small area to the east of Stivichall Junction lies in the Parish of St Michael and is depicted on the Tithe Map for that parish of 1849 (Figure 9.4). The area is labelled as *Whitley Abbey and Lands*, and no features of archaeological interest are depicted within the footprint of the Scheme on it.

2.6.1.5 Most of the area between Stivichall Junction and Tollbar End roundabout is depicted on the 1841 Baginton Tithe Map (Figure 9.4). Again, all boundaries depicted on this source within the footprint of the Scheme have been removed, mostly due to the construction of the present A45 Stonebridge Highway corridor. Elements of fieldnames given on the accompanying Apportionment Register which may be suggestive of archaeological sites include *Well* (*Lower Well Hill* and *Little Well Hill*); *Pit* (*Pit Close*); *Home* (*Home Close*); and *Barn* (*Barn Close*). Of these, *Home Close* is likely to have been so called because of adjacent buildings,

outside of the enclosure. The element *Barn* refers to a barn which lay just outside the Scheme footprint. The element *Well* may indicate the presence of such a feature within the field *Little Well Hill*. The element *Pit* refers to quarries which appear to have just encroached into the proposed compound area, to the south of the Scheme (Figures 9.4 and 9.12). In addition, a plot of land to the north of the Tollbar End roundabout is labelled as *Cottages and Gardens*. The buildings depicted in this enclosure on the First Edition Ordnance Survey map lie outside the Scheme footprint.

- 2.6.1.6 A small building is depicted on the Baginton Tithe Map, within the Scheme footprint (Figures 9.4 and 9.11). This area has since been disturbed by the construction of the present A45 Stonebridge Highway corridor.
- 2.6.1.7 A map of the parish of Willenhall of 1847 depicts the eastern area of the Scheme footprint (Figure 9.4). One field within this area is called *Barn Close*. Two small enclosures are depicted on this source labelled as *Ewell's House and Homestead* and *Old Blue's Cottage and Garden*. Of these areas, only a small area of what was *Barn Close* lies in an area not impacted upon by previous road construction works.
- 2.6.1.8 One hedgerows lies within the Scheme footprint, in the area of new land-take to the northeast of Tollbar End roundabout. Reference to historic maps suggests that this might be considered to be important under the Hedgerow Regulations (1997) Criteria for Archaeology and History, as this boundary is depicted on a cartographic source (Willenhall Tithe Map, 1847) which predates the Enclosure Act for the Parish (1859).

2.6.2 Ordnance Survey Maps

- 2.6.2.1 The first detailed cartographic sources to depict the entirety of the Study Area are the First Edition Ordnance Survey maps of 1886 (Figure 9.5). These sources show little change since the production of the earlier sources. Five ponds or small quarries are depicted on the 1886 maps, all but one of which lie within areas previously impacted upon by road construction (Figures 9.5, 9.13, 9.14). No other features of archaeological interest are depicted on these sources.
- 2.6.2.2 The Second Edition Ordnance Survey maps of 1905 and 1906 show that one additional building had been constructed to the south of the area where the current Tollbar End roundabout lies (Figures 9.5 and 9.13). This area has now been disturbed by the construction of the road junction.
- 2.6.2.3 The western side of the Scheme footprint is depicted on the Third Edition Ordnance Survey map of 1926. One small building is depicted on the edge of the Scheme footprint, which was associated with a nearby Golf Clubhouse (Figures 9.5 and 9.10). This complex of buildings has since been demolished, and the area has been disturbed by more recent road construction works.
- 2.6.2.4 The eastern side of the Scheme footprint is depicted on the Third Edition (revised) Ordnance Survey map of 1938. This shows that the A45 Stonebridge Highway was under construction when the map was surveyed, only being marked as an outline. A line of houses had been constructed on

the northeastern side of the Tollbar End roundabout (Figures 9.5 and 9.13), some of which were destroyed when the A46 was constructed.

2.6.3 Historic Aerial Photographs

- 2.6.3.1 Historic aerial photographs show development within the Scheme footprint through the second half of the 20th century. As mentioned above, areas of now-removed ridge and furrow earthworks are depicted on these photographs, the orientations of which have been transposed onto Figure 9.5. These are also recorded on the WHER.
- 2.6.3.2 A building is visible on aerial photographs of the 1940s to the northeast of where the current Tollbar End roundabout lies. This structure has now been demolished and the area has been disturbed by previous road construction (Figures 9.5 and 9.14).
- 2.6.3.3 As mentioned above, two penannular possible cropmarks are visible to the northeast of where the current Tollbar End roundabout lies on an aerial photograph of 1945 (Figures 9.5 and 9.14). These potential cropmarks are very faint, and it is possible that they are of non-archaeological origin. However, they may be indicative of archaeological features being present in this area, below current ground levels. Photographs of these marks were reviewed by an aerial photograph specialist, who classified them as unknown, possibly archaeological features which may relate to round barrows, Second World War features or agricultural processes (Air Photo Services 2006). If the marks indicate the presence of ring ditches, such features commonly date to the Neolithic or Bronze Age periods. A linear cropmark of similar shading was also visible in this area. This mark may also be of archaeological origin. Numerous linear cropmarks, also visible in the same area, are thought to represent drainage or agricultural works (Figures 9.5 and 9.14).

2.7 Value of Archaeological Remains

- 2.7.0.1 This Section defines the value of assets, which could potentially be impacted upon by the Scheme.
- 2.7.0.2 There is potential for Roman features to be present in the area of new land-take to the northeast of the Tollbar End roundabout. An area of Roman settlement was uncovered 500m to the northwest (Figures 9.2 and 9.14, **A7**) and Roman finds have been recovered in the vicinity by metal detectorists (Figures 9.2 and 9.14, **A11** and **A12**), although these are likely to be chance losses. The value of any archaeological features present in this area is currently **unknown** although, on current evidence, they are unlikely to be of very high or high value.
- 2.7.0.3 Three areas of stormwater wetland would be excavated in areas of gravel terrace or alluvium covered gravel and the site compound would be located on an area of gravel terrace and glacial sands and gravels (Figure 9.2). The carriageway to the west of Tollbar end would also be widened into an area of glacial sand and gravel. These areas have potential for currently unrecorded remains of prehistoric or Romano-British date, the value of which (if present) is currently **unknown**.

- 2.7.0.4 Several finds of medieval date have also been recovered in the vicinity of the new land-take, including the area in which the bioretention basin would be constructed to the northeast of the Tollbar End roundabout, by metal detectorists. These are most likely to be chance losses, but it is conceivable that they indicate potential for archaeological remains of that date in the area (Figures 9.2 and 9.14, **A17** and **A18**). The value of any such remains, which may be present, is currently **unknown**.
- 2.7.0.5 Two annular cropmarks and a linear cropmark are visible in the area to the east of the present Tollbar End roundabout, on aerial photographs of 1945 (Figures 9.2 and 9.14, **A27**). One of the annular cropmarks lies within the Scheme footprint where the carriageway would be widened and the other lies on the edge of the area in which the bioretention basin will be constructed. Works in both these areas would be constructed above current ground level. The linear cropmark lies in an area included within the Scheme boundary, but where no intrusive groundworks are proposed. It is possible that these represent archaeological features present in this area, although the marks may well be of non-archaeological origin. The value of any such remains, which may be present, is currently **unknown**, although truncated Bronze Age ring ditches are typically regarded as of medium value.
- 2.7.0.6 Several areas of former ridge and furrow earthworks have been mapped within, and in the immediate vicinity of, the Scheme footprint (Figure 9.5). It is likely that these earthworks once covered most of the footprint, although no extant earthworks were visible during the walkover survey. Any remains of these earthworks, which survive below current ground levels, would be of **negligible** archaeological value.
- 2.7.0.7 Slight earthworks were recorded immediately to the west of the Tollbar End roundabout during a previous Assessment, which suggested that they were of modern origin (Figure 9.1, **A1.3**). No earthworks were visible during the walkover survey and any slight earthworks surviving, which may have been obscured by vegetation, would be of **negligible** archaeological value.
- 2.7.0.8 Any archaeological features suggested by the fieldnames *Barn Close* and *Little Well Hill*, recorded in areas of new land-take within the Scheme footprint are likely to be of **negligible** archaeological value (Figure 9.4).
- 2.7.0.9 One pond recorded on a map of 1886 lies within an area of the site that does not appear to have since been disturbed (Figures 9.5 and 9.14). Any remains of this feature which survive below current ground levels are likely to be of **negligible** archaeological value.
- 2.7.0.10 One hedgerow is present within the footprint of the Scheme which is considered to be important under the criteria of the Hedgerow Regulations 1997 (criteria for archaeology and history) (Figure 9.14). This feature is considered to be of **low** archaeological value, due to the frequency of the occurrence of such features.
- 2.7.0.11 The Scheduled Monuments, King's Hill deserted medieval settlement and the Lunt Roman Fort, that lie within the study area and visual envelope of the Scheme (Figure 9.3) are both of **high** value.

- 2.7.0.12 Although the Scheme passes close to the Scheduled area of King's Hill deserted medieval village, excavations prior to the construction of the A46 carriageway in this area in 1971 did not uncover structural remains, but only evidence of the laying out of strip fields. Within the footprint of the Scheme, such remains may survive beneath an embankment constructed where the A46 passes over St Martin's Road. Any such remains are likely to be of **low** archaeological value.

2.8 Potential Impacts on Archaeological Remains

- 2.8.0.1 Potential impacts are those which would occur if no mitigation were undertaken, and in theory, there are no potential impacts once the Scheme and mitigation have been designed. However, in the Scheme, there are some areas where there is currently not enough evidence to confirm the presence or absence of archaeological remains, and so potential impacts of uncertain magnitude are present.
- 2.8.0.2 Areas of potential impact include the area to the northeast of the Tollbar End roundabout which has potential for Roman and Medieval features, as well as possible archaeological features indicated by cropmarks (Figure 9.2, **A27**). No topsoil stripping will occur in this area and the bioretention pond will be constructed above current ground levels. The cropmarks have been plotted as accurately as the number of reference point on the photograph on which it was seen allowed, but some plotting error may have occurred.
- 2.8.0.3 Other areas of potential comprise areas of gravel terrace or alluvium covered gravel and areas of glacial sands and gravels which may have potential for previously unrecorded remains of prehistoric or Romano-British date; areas where there is potential for evidence of ridge and furrow earthworks to survive below current ground level; and areas where archaeological potential is indicated by historic field names. Although there is no current evidence to suggest that remains of national importance which would warrant preservation *in situ* are present in these areas, if appropriate mitigation is not implemented in these areas there would be a risk of major adverse impacts occurring.

2.9 Archaeological Remains Mitigation

2.9.1 Mitigation

- 2.9.1.1 The investigation of Late Neolithic and Bronze Age ring ditches is an objective identified in the West Midlands Regional Research Framework for Archaeology seminars. The understanding of barrows is thought to be central to the interpretation of social life in the period (Garwood 2002). Specific objectives relating to barrow and ring ditch sites comprise gaining more information of the following points, taken from Garwood (2002):
- Interpretation of architectural forms and detailed evidence of construction;
 - Associated funerary practices;

- Spatial organisation;
 - Landscape setting and environmental context; and,
 - Chronology.
- 2.9.1.2 The preservation of any ring ditches indicated by the cropmarks to the east of the Tollbar End roundabout has the potential to contribute such information by preserving them for possible future investigation.
- 2.9.1.3 The investigation of Roman rural settlement has been identified as a research objective in the West Midlands Regional Research Framework for Archaeology seminars (Booth 2004). Rural settlement has been identified as an area in which the current knowledge base is weak, especially in relation to lower status (non-villa) sites (Booth 2002). The preservation of the area to the northeast of the current Tollbar End roundabout, where there is potential for such Roman rural activity, may contribute to this research objective preserving any remains for possible future investigation.
- 2.9.1.4 The area to the northeast of the Tollbar End roundabout within the proposed landtake for the realigned sliproad, noise bund and bioretention pond, where two penannular cropmarks and a linear cropmark are present, will be preserved *in situ*. This area lies within Warwickshire. No topsoil stripping will take place in this area prior to construction and the bioretention pond will be constructed above current ground level. These areas will be adequately protected before the commencement of construction works. Such protection may include the covering of the areas with a water permeable membrane and protective layer of inert material, if appropriate.
- 2.9.1.5 As these possible resources will be amalgamated into the Highways Agency's estate, once the road has been constructed, a Cultural Heritage Asset Management Plan (CHAMP) will be produced for the area northeast of the Tollbar End roundabout, in line with guidance given in IAN 100/07 (Highways Agency 2007), to ensure the assets are protected from road maintenance and management activities.
- 2.9.1.6 For remaining areas within Coventry City, a programme of investigation during construction works (watching brief) has been formulated in consultation with the Coventry City Planning Archaeologist. This would comprise a programme of archaeological supervision during topsoil stripping activities in areas of new landtake comprising the area to the southwest of the Tollbar End roundabout, where the carriageway will be widened and an area to the north of the A45 Stonebridge Highway where a stormwater wetland is proposed.
- 2.9.1.7 In the event that archaeological features are discovered, an appropriate level of investigation would be implemented. This would comprise either recording by the monitoring archaeologist or, if the remains are of greater complexity or value, a more detailed investigation. The machine undertaking the topsoil stripping would be equipped with a toothless bucket, and works would be timetabled to allow for the recording of any remains which might be uncovered.
- 2.9.1.8 The remainder of the new landtake within Warwickshire would be the subject of a programme of investigation (watching brief) during construction works, as outlined above. The areas subject to these works would comprise

the area south of the A45 Stonebridge Highway where two stormwater wetland areas would be constructed and the proposed compound location.

- 2.9.1.9 The data produced by any archaeological fieldwork would be subject to a post-excavation programme of Assessment and analysis leading to dissemination of the results by the production of academic and popular reports in appropriate formats.
- 2.9.1.10 Mitigation of the visual impacts of the Scheme is also proposed. Although views of the Scheme from the Lunt Roman fort are mostly screened by vegetation close to the fort, where vegetation on the southern side of the A45 Stonebridge Highway would be removed during widening, it would be replaced by sympathetic planting Schemes (planting Schemes are detailed in Chapter 7).
- 2.9.1.11 A detailed description of the mitigation measures concerning noise and vibration is given in Volume 2 Part 14: Noise and Vibration. Briefly, they comprise:
- Consideration of the location of compounds and haul roads;
 - Noise control measures during construction works, including use of quieter and well-maintained plant and use of screens for fixed plant; and,
 - Possible use of noise insulation.

2.9.2 Implementation

- 2.9.2.1 The preparation and implementation of both stages of the Detailed Archaeological Design would be the responsibility of the Contractor's archaeologist, and would be monitored and approved by the Employer's archaeologist.
- 2.9.2.2 All works would be inspected by the Contractor's and Employer's archaeologists to establish the presence and value of any discovered archaeological remains. They would agree the scope of work required within the terms of the approved Archaeological Design; instances where further work is required beyond that defined in the Design; and that the fieldwork investigations have been completed in accordance with the Design. Once recording within any specified area has been completed to an approved standard, certification would be provided for construction works to proceed in that area.
- 2.9.2.3 Where archaeological remains are encountered during the general construction watching brief, the extent of the remains would be immediately delineated and protected from construction activities. If the remains are of low intensity, or of minor value, they would be recorded by the monitoring archaeologist as part of the general watching brief. Potentially significant discoveries would immediately be reported to the Contractor's and Employer's archaeologists. If necessary, an Additional Archaeological Design would be prepared for approval by the Employer's Archaeologist, following consultation with English Heritage, the Warwickshire County Council Planning Archaeologist and the Coventry City Planning Archaeologist. This would stipulate the further time to be allowed in the construction programme for the necessary investigation and recording. Any

human remains discovered during the works would be left in place, and if removal is necessary, a licence would be obtained from the Home Office prior to further investigation and lifting. The provisions of the Treasure Act 1996 would be adhered to.

- 2.9.2.4 There would be regular consultation throughout the works with English Heritage, the Warwickshire County Council Planning Archaeologist and the Coventry City Planning Archaeologist.

2.10 Impacts Following Mitigation

- 2.10.0.1 Impacts following mitigation are discussed below and summarised in tables 9.4 and 9.5, at the end of the chapter. .

2.10.1 Construction Impacts

- 2.10.1.1 The construction of the east facing slip roads to Tollbar End roundabout, the revised alignment of the A46 Coventry Eastern Bypass and the construction of a bioretention pond, to the northeast of the Tollbar End roundabout includes new landtake in an area which has potential for possible ring ditches and a linear feature indicated by cropmarks, as well as potential for Roman and Medieval features (Figures 9.2 and 9.14, **A27**). Any remains in this area will be preserved *in situ* beneath the proposed constructions. No topsoil stripping will occur and the bioretention pond will be constructed above current ground levels. It is possible that the material imported into this area during the construction of the embankment and the pond may result in compression to any archaeological remains which might be preserved *in situ* beneath it. The small anticipated impact in this area suggests that, in a worst case scenario, a **minor negative permanent** impact would remain following mitigation, if archaeological remains are indeed present in this area. If no features are present, no impact would occur.
- 2.10.1.2 The contractor's compound, the widening of the carriageway to the west of Tollbar End roundabout, and three stormwater wetland areas are located in areas where the underlying geology suggests that there may be potential for currently unrecorded prehistoric or Romano-British features (Figure 9.2). If no features are present, no impact would occur. However, if features are present, their disturbance would be mitigated by recording during the programme of archaeological investigation. In a worst case scenario for this area, a **moderate negative permanent** impact would remain.
- 2.10.1.3 There is the potential that several areas in which there is evidence of ridge and furrow earthworks surviving below current ground level (where ridge and furrow earthworks are known from aerial photographs to have been present) would be disturbed by the Scheme (Figure 9.5). These features would be recorded during programmes of archaeological investigation in areas of new land-take, mitigating their loss by preserving them through record. The limited areas of landtake involved and the partial mitigation of the impact through recording mean that, at worst, a **minor negative permanent** impact would remain.

- 2.10.1.4 Disturbance may be caused by the widening of the carriageway in an area where earthworks have been recorded to the west of the Tollbar End roundabout (Figures 9.1 and 9.13, **A1.3**) would be partially mitigated by a programme of archaeological investigation during works in this area. If no remains are encountered, no impacts would occur. In a worst-case scenario, a **minor negative permanent** impact on this asset would occur, following mitigation.
- 2.10.1.5 The construction works could also disturb small parts of an area which were labelled *Barn Close* and part of an area labelled *Little Well Hill* on Tithe Maps of the 1840s. The limited landtake in these areas and the partial mitigation of the impact through recording during a programme of archaeological investigation indicates that, at worst, a **minor negative permanent** impact would occur.
- 2.10.1.6 No intrusive groundworks are proposed in the area where remains of a pond may be present to the east of the Tollbar junction. The impact upon this will be **no change**.
- 2.10.1.7 The hedgerow to the east of the Tollbar Junction will be removed prior to the construction of the bioretention pond in this area. This will be a **major negative permanent** impact.
- 2.10.1.8 Construction works in the area where evidence of medieval strip fields close to King's Hill may be preserved under an embankment will be confined to changes within the existing carriageway, which will not impact upon any remains present. The impact will be **no change**.
- 2.10.1.9 Changes to the views of the Scheme from the Scheduled deserted medieval village of King's Hill would be minimal. A gantry would be constructed to the south of the Scheduled Monument, which may just be visible from it, although this would be located in a cutting and partially screened by vegetation. The Scheme would have a **negligible negative permanent** impact upon the setting of the settlement, as the road is already visible and audible in this area and changes to the setting of the monument resulting from the scheme are considered to be very slight. This impact would also be present during the operation of the road, but has been considered in this section, as it would run from the construction period onwards.
- 2.10.1.10 Changes to the existing roads would have a very slight visual impact on the setting of the Lunt Roman Fort as the roads are mostly screened by vegetation close to the fort, and any vegetation adjacent to the carriageway which would be removed during road widening would be replaced. Gantries would be constructed to the north and northeast of the fort, which would be visible from it, but these would have little additional visual impact due to the tall central reservation lighting currently present in these parts of the Scheme footprint. The impact on the setting of this monument would be **negligible negative permanent**. This impact could also be present during the operation of the road, but has been considered in this section, as it would run from the construction period onwards.
- 2.10.1.11 A detailed Assessment of the noise and vibration impacts of the Scheme is contained in Chapter 14: Noise and Vibration. Nuisance noise levels are anticipated during the construction of the Scheme, in its immediate vicinity

(Figure 14.2, C1, C3, C4 and C5). Neither of the Scheduled Monuments in the noise assessment area are close to these receptors.

2.10.2 Operational Impacts

2.10.2.1 A detailed Assessment of the noise and vibration impacts of the Scheme contained in Chapter 14: Noise and Vibration. The operational effects of noise and vibration have been assessed by comparing the predicted noise levels which would occur in 2014 and 2029 should the Scheme be constructed (“do-something”) against a baseline of the predicted levels of noise and vibration in the same year should the minimum amount of work needed to maintain the highways be completed (“do-minimum”).

2.10.2.2 Anticipated noise modelling (Figure 14.8) suggests that, when compared to the do-nothing option, the construction of the Scheme would result in a very small reduction in noise at the Lunt Roman fort Scheduled Monument. This would be a **negligible positive long term** impact on the setting of the monument (Figure 9.3, **A27**).

2.10.3 Cumulative impacts

2.10.3.1 No additional cumulative impacts have been identified.

2.11 Assessment of Effects

2.11.1 Construction Effects

2.11.1.1 The significance of the effect of the works in the area east of Tollbar End roundabout which has potential for Roman and Medieval features, as well as possible archaeological features indicated by cropmarks, is currently **uncertain** as their value is unknown (Figures 9.2 and 9.14, **A27**).

2.11.1.2 The significance of the effect of the Scheme on any prehistoric or Romano-British remains present in areas of new land-take on gravel terraces or glacial sands and gravels (Figure 9.2) is currently **uncertain**, as their value is unknown.

2.11.1.3 The significance of the effect of the Scheme on any areas where evidence of ridge and furrow earthworks survive below current ground level (Figure 9.5) would, in a worst case scenario, be **slight adverse** (negligible value of resource and minor negative impact).

2.11.1.4 The significance of the effect of the disturbance caused by the widening of the carriageway in an area where earthworks have been recorded (Figure 9.1, **A1.3**) would be **slight adverse** (negligible value of resource and minor negative impact).

2.11.1.5 The disturbance to small parts of an area which was labelled *Barn Close* and part of an area labelled *Little Well Hill* on Tithe Maps of the 1840s (Figure 9.4) would, in a worst case scenario, be of **slight adverse** significance (negligible value of resources and minor negative impacts).

- 2.11.1.6 The significance of the effect of the Scheme on any archaeological remains preserved beneath the embankment close to King's Hill would be **neutral** (low value of resource and no change).
- 2.11.1.7 The significance of the effect of the Scheme on any remains of the pond preserved beneath current ground levels to the east of the Tollbar Junction would be **neutral** (low value of resource and no change).
- 2.11.1.8 The significance of the effect of the removal of the hedgerow to the east of the Tollbar Junction would be **slight adverse** (low value of resource and major negative impact).
- 2.11.1.9 The significance of the effect of the visual impact of the Scheme on the settings of Lunt Roman Fort and King's Hill deserted medieval village (Figure 9.3) would be **slight adverse** (high value of resources and negligible negative impacts).

2.11.2 Operational Effects

- 2.11.2.1 The significance of the effect of the change in noise on the setting of Lunt Roman Fort is predicted to be of **slight beneficial** significance (high resource value and negligible positive impact).

Table 9.4: Effects on Archaeological Remains following mitigation: construction

Cultural Heritage Resource and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
Area of new land-take to the east of Tollbar End roundabout with potential for Romano-British and Medieval remains and where two cropmarks are present	9.2, 9.5 and 9.14	Unknown	Preservation <i>in situ</i> of northern cropmark. Programme of archaeological investigation, including a controlled strip by toothless-bucket	Minor negative permanent impact, if archaeological remains are present. If absent, no impact	Uncertain
Areas of land-take on gravel terraces and glacial gravels where there is potential for prehistoric and Romano-British remains.	9.2	Unknown	Programme of archaeological investigation during construction	If present and in worst case, moderate negative permanent If absent: no impact	Uncertain

Cultural Heritage Resource and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
Evidence of ridge and furrow earthworks surviving below current ground level in one area of proposed stormwater wetland to the south of the A45 and in the area of new land-take to the east of the Tollbar End roundabout, including the proposed bioretention basin.	9.5	Negligible	Programme of archaeological investigation during construction	In worst case, minor negative permanent	In worst case, slight adverse
Earthworks recorded to the west of Tollbar End roundabout in location proposed for carriageway widening.	9.1:A1.3	Negligible	Programme of archaeological investigation during construction	In worst case, minor negative permanent	In worst case, slight adverse
Remains indicated by field-names Barn Close (two occurrences) in proposed compound area and land-take to the east of the Tollbar End roundabout.	9.4	Negligible	Programme of archaeological investigation during construction	In worst case, minor negative permanent	In worst case, slight adverse
Remains indicated by field-name Little Well Hill in area of stormwater wetland.	9.4	Negligible	Programme of archaeological investigation during construction	In worst case, minor negative permanent	In worst case, slight adverse
Remains of pond to east of Tollbar End Roundabout	9.5 and 9.14	Negligible	-	No change	Neutral
Hedgerow to the east of Tollbar End Junction	9.5	Low	-	Major negative permanent	Slight adverse
Possible evidence of strip fields beneath embankment close to King's Hill	9.9	Low	-	No change	Neutral
The Lunt Roman Fort (visual impact).	9.3	High	Landscaping	Negligible negative permanent	Slight adverse
King's Hill deserted medieval village (visual impact).	9.3 and 9.9	High	-	Negligible negative permanent -	Slight adverse

Table 9.5: Effects on Archaeological Remains following mitigation: operation

Cultural Heritage Resource and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
The Lunt Roman Fort (noise and vibration impact: long-term operational).	9.3	High	-	Negligible positive long term	Slight beneficial

3 Historic Buildings

3.1 Introduction

3.1.0.1 Historic buildings include extant and visible edifices and structures of historic construction or association, such as domestic dwellings, industrial buildings and bridges.

3.2 Relevant Legislation and Guidance

3.2.0.1 Legislation concerning the statutory protection of historic buildings comprises the Planning (Listed Buildings and Conservation Areas) Act (1990).

3.2.0.2 Guidance concerning historic buildings under development plan and control systems is provided in *PPG 15: Planning and the Historic Environment* (1994). Legislation concerning the assessment of environmental effects is also contained in the Highways Act 1980.

3.2.0.3 The Regional Spatial Strategy for the West Midlands (adopted June 2004), the Coventry Development Plan (adopted December 2001) Saved Policies and the Warwick District Local Plan (adopted September 2007) contain policies on historic buildings, which are of relevance to the Scheme. These policies, and the compliance of the Scheme with them, are discussed in Chapter 6: Policies and Plans.

3.2.0.4 This chapter has been produced in accordance with HA 208/07, specifically Annex 6, Historic Buildings

3.3 Methodology

3.3.1 Study Area

3.3.0.1 The Study Area comprises the visual envelope of the Scheme footprint, including temporary works and flood compensation areas, and the Assessment area used in Volume 2 Part 14: Noise and Vibration. Historic buildings within the Study Area are numbered in the text, prefixed with 'B' and are shown on Figure 9.6.

3.3.2 Mitigation Strategy

3.3.2.1 In addition to mitigating specific impacts, the Scheme has been designed to minimise impacts upon historic buildings. The objectives of mitigation with regards to archaeological remains are to:

- Minimise the detrimental physical effects of the Scheme upon historic buildings, as far as is reasonably practicable;
- Minimise the effects of the Scheme on historic buildings in terms of detrimental impact through visual intrusion, noise and ambience; and,

- Maximise the gains in knowledge and research benefits that would accrue from a programme of recording, in line with local planning guidance, where historic buildings are to be disturbed by the Scheme.

3.3.3 Assessment Methodology

Assessment of Value

- 3.3.3.1 The Assessment of an asset's value has been determined using Table 9.6 below (based on Table 6.1 in HA 208/07) which is governed by the general principles outlined in Section 1.3: Methodology

Table 9.6 Criteria for Assessing Historic Building Value

Value of Resource	Description
Very high	Structures inscribed as of universal importance as World Heritage Sites. Other buildings of recognised international importance.
High	Scheduled Monuments with standing remains. Grade I and II* (Scotland: Category A) Listed Buildings. Other Listed Buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the Listing grade. Conservation Areas containing very important buildings. Undesignated structures of clear national importance.
Medium	Grade II (Scotland: Category B) Listed Buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations. Conservation Areas containing buildings that contribute significantly to its historic character. Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Low	'Locally Listed' buildings (Scotland Category C (S) Listed Buildings). Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Negligible	Buildings of no architectural or historic note; buildings of an intrusive character.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance

Assessment of Impact Magnitude

3.3.3.2 The Scheme may impact upon historic buildings both during its construction, and subsequently during its operation and maintenance. The potential impacts may take a variety of forms, including:

- Total, or partial, loss of historic buildings, either may result from permanent or temporary land-take for the Scheme;
- Effects on the setting of a historic building, both visually, with respect to noise generated by the Scheme and with respect to amenity; and,
- Effects on the physical and visual cohesiveness of a historic building due to severance caused by land-take for the Scheme.

3.3.3.3 The definitions for magnitude of impact are defined in Table 9.7, based on Table 6.3 of HA208/07.

Table 9.7 Criteria for Assessing Impact Magnitude (Historic Buildings)

Magnitude of Impact	Description of Impact
Major	Change to key historic elements, such that the resource is totally altered. Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, such that the resource is significantly modified. Changes to the setting of an historic building, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different. Changes to the setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to historic buildings elements or setting that hardly affect it.
No change	No change to fabric or setting.

Assessment of Significance of Effects

3.3.3.4 Having defined the value of the historic buildings and the magnitude of impact, the significance of any effects upon the historic buildings can be assessed, using Table 9.1 above.

3.3.4 Data Sources and Surveys

3.3.4.1 Documents which have been produced during the previous stages of the Scheme development process comprise:

- An archaeological Desk-Based Assessment of the proposed route options (JSAC 2001); and,

- An Archaeological Desk-Based Assessment and Walkover Survey, A45 / A46 Tollbar End Improvement (ULAS 2003) which was produced as a draft Stage 3 DMRB Assessment.

3.3.4.2 A list of sources cited in this report is given in Appendix 9.1. The main repositories consulted during the production of these documents and the present Environmental Statement comprised:

- Warwickshire Historic Environments Record;
- The List of Buildings of Special Architectural or Historic Interest held by English Heritage;
- Warwickshire Record Office;
- National and Regional Planning Legislation;
- Warwick District Local Plan, which defines the extent of Conservation Areas;
- Coventry Development Plan, which defines Conservation Areas; and,
- Coventry County Council Planning Department (CCCPD), who keep a list of Locally Listed Buildings, and Parks and Gardens. These are assets which were considered to be historic, but not of sufficient value to be nationally Listed. A list of Code Green buildings is also maintained, which CCCPD define as buildings of some historic significance, but too modernised to justify local listing. Warwick District Council does not maintain a list of Locally Listed Buildings or other buildings of lesser historic interest.

3.3.5 Consultations

3.3.5.1 Consultation for the current Scheme was made with the Coventry City Council Conservation Officer, between October 2006 and March 2007, and with the Conservation and Archaeology Team Leader in September 2008.

3.4 Existing Conditions

3.4.1 Nationally Listed Buildings

3.4.1.1 No Grade I or Grade II* Listed buildings lies within the study area.

3.4.1.2 Six Grade II Listed buildings are present within the visual envelope or the noise Assessment area of the Scheme, four of which are located in the village of Baginton, to the south of the Scheme. Two of these are cottages, each comprising a cross wing of a now-demolished hall range which dated from the late 15th or early 16th century. Number 1, Lunt Cottages is the former solar range and dates to around 1600 (Figure 9.6, **B1**; EH) and number 2, Lunt Cottages is the former service wing, dating to the late 15th or early 16th century (Figure 9.6, **B2**; EH). These cottages are located 470m to the south of the Scheme. A small timber-framed outbuilding to Rose Cottage, which dates to the 17th century, is located 550m to the south of the Scheme (Figure 9.6, **B3**; EH). These three buildings lie within the visual envelope of the Scheme and the noise Assessment area.

- 3.4.1.3 The 18th-century Baginton Bridge lies on the western edge of Baginton village, 50m from the Scheme (Figures 9.6 and 9.10, **B4**; EH), within the Noise Assessment area, but not the visual envelope.
- 3.4.1.4 Hill Farmhouse lies to the west of Baginton (Figures 9.6 and 9.9, **B5**; EH), within the visual envelope. The building comprises a 16th or 17th-century timber-framed house with a later wing. It lies 200m to the northwest of the Scheme.
- 3.4.1.5 The final Listed structure, which lies within the visual envelope but outside the noise Assessment area 360m to the southeast of the Scheme, is Ryton Bridge (Figure 9.6, **B6**; EH). The bridge was constructed in 1786 from sandstone ashlar, and was widened in 1931 and 1974.

3.4.2 Local designations and other structures

- 3.4.2.1 The criteria for including buildings on the “local list” are based on the criteria for the compilation of the statutory (national) list, although the Locally Listed Buildings are of local rather than national significance. One Locally Listed Building lies within the visual envelope and noise Assessment area; a City of Coventry boundary post dating to 1932, which lies to the north of the Tollbar End roundabout, on the edge of the Scheme footprint (Figures 9.6 and 9.13, **B7**; CCCPD). Due to changes in the road layout around the Tollbar End roundabout, this boundary post has been moved from its original location. Historic mapping held by CCCPD shows that the boundary post has been moved approximately 18m to the west from its original location (as shown on the 1936 Ordnance Survey map). Its orientation has turned from facing northeast to east.
- 3.4.2.2 Another identical boundary post lies to the west of the Tollbar End roundabout (Figures 9.6 and 9.13, **B8**), within the visual envelope and noise Assessment area. This post is not Locally Listed but, as it is identical to a structure with this designation, it is considered in this section. Reference to historic maps has shown that this feature has also been moved from its original location, which was approximately 250m to the west-north-west.
- 3.4.2.3 CCCPD define Code Green buildings as buildings of some historic significance, but too modernised to justify local listing. Two Code Green buildings lie within the visual envelope and noise Assessment area of the Scheme. Two semi-detached brick-built cottages, numbers 550-552 London Road, lie to the north of the Tollbar End roundabout, immediately to the west of the footprint of the Scheme (Figures 9.6 and 9.13, **B9**; CCCPD). This building is now in a poor state of repair and has been boarded up. Further to the north, number 665 London Road is also a Code Green building (Figures 9.6 and 9.13, **B10**; CCCPD).
- 3.4.2.4 One extant building lies within the footprint of the Scheme, the Glengary Guest House. This building was constructed as two semi-detached residences and is first depicted on the 1938 Ordnance Survey map. It has since been converted to a guest house. This building is not of historic interest.
- 3.4.2.5 No Conservation Areas lie within the visual envelope of the Scheme.

3.5 Historic Building Value

- 3.5.0.1 The six Grade II Listed buildings present within the visual envelope of the Scheme are of **medium** value (Figures 9.6, 9.9 and 9.10, **B1-B6**). The Locally Listed boundary post is of **low** value (Figures 9.6 and 9.13, **B7**). As the other boundary post is identical (Figures 9.6 and 9.13, **B8**), and Coventry Conservation department have indicated that this structure will be put forward for Local Listing in the near future, it is also considered to be of **low** value.
- 3.5.0.2 The value of the two Code Green buildings (Figures 9.6 and 9.13, **B9, B10**) is not prescribed by Table 9.6 and so professional judgement has been used. Whilst they are of lesser importance than Locally Listed Buildings, which are considered of low archaeological importance, they are of modest quality (criteria for low value) and would not fit the description 'no architectural or historical note' (criteria for negligible value). Hence they have been assessed as being of **low** value.

3.6 Historic Building Design Appraisal and Mitigation

- 3.6.0.1 The principle of protecting and maintaining Locally Listed Buildings within the city of Coventry is contained in Policy B14 of the Coventry Development Plan (2001) which states that "Development involving the partial or complete loss of such a building will be permitted only if the benefits of the development can be shown to outweigh any resulting harm, or that no realistic alternative for its survival can be secured."
- 3.6.0.2 Proposed mitigation comprises the relocation of the Locally Listed boundary posts, ensuring their survival. These features have already been moved from their original location. With reference to historic maps and data held by CCCPD, the northern post would be re-set in a location on the 1932 Coventry / Warwickshire boundary, in the correct orientation. The Coventry City Council Conservation Officer has been consulted on the location at which it should be re-sited. This would restore the context of the boundary post, which it currently appears to have partially lost.
- 3.6.0.3 The southern boundary post would be also be relocated. Due to the proposed layout of the road junction, it would not be possible to relocate this post on the line of the 1932 boundary. However, it would be sited as close as possible to this line, approximately 5m from it. This location has been formulated in consultation with the Coventry City Council Conservation Officer.
- 3.6.0.4 Although views of the Scheme from the Lunt Cottages are mostly screened by vegetation close to them, where vegetation to the south of the A45 Stonebridge Highway would be removed during widening works, it would be replaced by planting, which is outlined in detail in Volume 2 Part 7: Landscape Effects. Where existing vegetation would be removed close to 550-552 London Road, this would be replaced with trees and shrubs.
- 3.6.0.5 A detailed description of the mitigation measures concerning noise and vibration is given in Volume 2 Part 14: Noise and Vibration. Briefly, they comprise:
- Consideration of the location of compounds and haul roads;

- Noise control measures during construction works, including use of quieter and well-maintained plant and use of screens for fixed plant; and,
- Possible use of noise insulation.

3.6.0.6 A method statement would be prepared, outlining measures to ensure that the boundary posts are removed from their current location with care; protected during the course of construction, and re-sited in locations which have been formulated in consultation with the Coventry City Council Conservation Officer.

3.7 Impacts Following Mitigation

3.7.0.1 Impacts following mitigation are discussed in detail below and summarised in Tables 9.8 and 9.9 at the end of the chapter.

3.7.1 Construction Impacts

3.7.1.1 The Scheme would have no physical impacts upon the Grade II Listed structures (Figure 9.6, **B1-B6**). For four of these buildings (Figure 9.6, **B1-B3, B6**), although the proposed works would be visible from them, the works will comprise alterations to an existing transport route, and so the visual impact on the settings of the buildings would be **permanent negligible negative**. These impacts would also be present during the operation of the road, but has been considered in this section, as they would run from the construction period onwards.

3.7.1.2 A gantry would be constructed to the south-west of Hill Farmhouse, and may be visible from the upper storey of the house (Figure 9.6, **B5**). The road is already visible and audible in this area. The gantry would be located in a cutting and partially screened by vegetation. The illuminated side of the gantry would face away from Hill Farmhouse. Overall, it is considered that if the gantry is visible from the upper storeys of the front of the farmhouse, this will be a noticeable change to the setting of the building, which will be a **minor negative permanent** impact. This impact would also be present during the operation of the road, but has been considered in this section, as it would run from the construction period onwards.

3.7.1.3 Following the relocation of the northern Locally Listed boundary post (Figure 9.6, **B7**) in a location on the line of the 1932 boundary, and on the correct orientation, the impact on this structure would be **permanent moderate positive**, as it restores the post to a context in which it can be correctly understood, significantly modifying its setting. Its location adjacent to the pedestrian crossing of the junction would mean that access to the structure would not be compromised.

3.7.1.4 Following the relocation of the southern boundary post (Figure 9.6, **B8**), the impact would be **no change**, as the post would be close to the 1932 boundary but not on its exact line, which is the same situation as it is currently. Access to the structure would be unaltered.

3.7.1.5 The two Code Green buildings, numbers 550-552 and 665 London Road would not be physically impacted upon by the Scheme (Figure 9.6, **B9** and

B10). Alterations to the road layout to the north of the Tollbar End roundabout would move the road closer to numbers 550-552 (Figure 9.6, **B9**, noticeably changing its setting), encroaching into the garden. However, the setting of this building is already dominated by the roundabout and associated roads and the construction of the new underpass would move a large body of traffic further from the building. The visual impact upon the setting of this building would be **permanent minor negative**.

3.7.1.6 The setting of the second Code Green building, 665 London Road (Figure 9.6, **B10**), would be only very slightly visually impacted upon by the Scheme, as changes in the vicinity of this building comprise alterations to the existing junction, and no works are taking place in its immediate vicinity. This would be a **permanent negligible negative** impact.

3.7.1.7 Nuisance noise levels are anticipated during the construction of the Scheme, in its immediate vicinity (Figure 14.2, C1, C3, C4 and C5). Historic buildings in the immediate vicinity of these receptors are likely to experience noise and vibration levels above the proposed criteria on nuisance noise. Such historic buildings comprise the Grade II Listed Baginton Bridge (Figure 9.6, **B4**; EH) and the two Code Green buildings, numbers 550-552 and 665 London Road (Figure 9.6, **B9** and **B10**). The temporary and intermittent nature of the noise at this location would make the impact upon the settings of these buildings **temporary minor negative**. The two Locally Listed boundary posts would be removed during construction works, prior to relocation, and would not experience any further constructional impacts.

3.7.2 Operational Impacts

3.7.2.1 A detailed Assessment of the noise and vibration impacts of the Scheme is contained in Volume 2 Part 14: Noise and Vibration. Noise modelling has been carried out for two areas, in the vicinity of the Stonebridge junction and Tollbar End Roundabout (Figure 14.8).

3.7.2.2 The predicted results for the closest Assessment receptor to the historic buildings in Baginton (Figure 14.5, receptor 5) and noise modelling contours immediately to the north (Figure 14.8), suggest that when compared to the “Do-Minimum” option, the construction of the Scheme is likely to result in a very small reduction in noise in 2014 and 2029. This would have a **long term negligible positive** impact on the four Grade II Listed buildings (Figure 9.6, **B1-B4**).

3.7.2.3 Likewise, predicted data for receptors in the vicinity of the Tollbar End roundabout (Figure 14.5, receptors 1 and 2) suggest that in 2014 and 2029 the Locally Listed boundary post, the other boundary post and the two Code Green buildings are likely to experience very slight reductions in noise, which would be **long term negligible positive** impacts (Figure 9.6, **B7-B10**).

3.7.3 Cumulative impacts

3.7.3.1 No additional cumulative impacts have been identified.

3.8 Assessment of Effects

3.8.1 Construction Effects

- 3.8.1.1 The significance of the visual effects of the construction of the Scheme on the settings of the four of the five Grade II Listed buildings present within the visual envelope (Figure 9.6, **B1-B3, B6**) would be **neutral** (medium resource value and negligible negative impact). Table 9.1 would allow for this impact to be slight or neutral. Professional judgement was used and the significance has been determined as neutral, as the Scheme comprises modifications to an existing road in keeping with its current character.
- 3.8.1.2 The significance of the effect for the visual effect of the scheme on the Grade II Listed Hill Farmhouse (Fig. 6, **B5**), would be **slight adverse** (medium resource value and minor negative impact).
- 3.8.1.2 The significance of the effect of the construction noise on the setting of the Grade II Listed Baginton Bridge (Figure 9.6, **B4**) would be **slight adverse** (medium resource value and minor negative impact).
- 3.8.1.3 The significance of the visual effect of the construction of the Scheme on the setting of the Code Green building 665 London Road (Figure 9.6, **B10**) would be **neutral** (low resource value and negligible negative impact). The significance of the effect on the setting of 550-552 London Road (Figure 9.6, **B9**) would be **neutral** (low resource value and minor negative impact). Neutral significances were chosen for these effects over slight adverse significances as Code Green buildings are at the lower end of the low value bracket.
- 3.8.1.4 The significance of the effect of the construction noise on the settings of the Code Green buildings (Figure 9.6, **B9** and **B10**) would be **neutral** (low resource value and minor negative impact). A neutral significance was determined, rather than a slight significance, as the buildings might be considered at the lower end of the low value bracket.
- 3.8.1.5 The significance of the effect of the Scheme on the Locally Listed boundary post (Figure 9.6, **B7**) would be **slight beneficial** (low resource value and moderate positive impact). The significance of the effect of the Scheme on the southern boundary post (Figure 9.6, **B8**) would be **neutral** (low resource value and no change).

3.8.2 Operational Effects

- 3.8.2.1 The significance of the changes in noise on the settings of the four Grade II Listed buildings within the noise Assessment area (Figure 9.6, **B1-B4**) would be **neutral** (medium resource value, negligible positive impact). Neutral significance was chosen over slight beneficial, as the changes in noise levels would be very small.
- 3.8.2.2 The significance of the noise change effects on the settings of the boundary posts (Figure 9.6, **B7** and **B8**) would be **neutral** (low resource value and negligible positive impact). The significance of the noise change effects on the settings of the two Code Green buildings (Figure 9.6, **B9** and **B10**)

would be **neutral** (low resource value and negligible positive impacts). Neutral was chosen over slight beneficial as changes in noise levels would be small.

Table 9.8: Effects on Historic Buildings following mitigation: construction

Built Heritage Resource and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
1 Lunt Cottages, Baginton (visual impact)	9.6:B1	Medium	Landscaping	Permanent negligible negative	Neutral
2 Lunt Cottages, Baginton (visual impact)	9.6:B2	Medium	Landscaping	Permanent negligible negative	Neutral
Outbuilding at Rose Cottage, Baginton (visual impact)	9.6:B3	Medium	Landscaping	Permanent negligible negative	Neutral
Baginton Bridge (noise and vibration: construction)	9.6 and 9.10: B4	Medium	Good working practice for plant use	Temporary minor negative	Slight adverse
Hill Farmhouse (visual impact)	9.6 and 9.9:B5	Medium	Landscaping	Permanent minor negative	Slight adverse
Ryton Bridge (visual impact)	9.6:B6	Medium	Landscaping	Permanent negligible negative	Neutral
Boundary post north of the Tollbar End roundabout (physical)	9.6 and 9.13:B7	Low	Re-siting along original boundary and on correct orientation	Permanent moderate positive	Slight Beneficial
Boundary post east of the Tollbar End roundabout (physical)	9.6 and 9.13:B8	Low	Re-siting as close to original boundary as road layout allows	No change	Neutral
550-552 London Road, Willenhall (visual impact)	9.6 and 9.13:B9	Low	Sympathetic planting	Permanent minor negative	Neutral
550-552 London Road, Willenhall (noise and vibration: construction)	9.6 and 9.13:B9	Low	Good working practice for plant use	Temporary minor negative	Neutral
665 London Road, Willenhall (visual impact)	9.6 and 9.13:B10	Low	Landscaping	Permanent negligible negative	Neutral
665 London Road, Willenhall (noise and vibration: construction)	9.6 and 9.13:B10	Low	Good working practice for plant use	Temporary minor negative	Neutral

Table 9.9: Effects on Historic Buildings following mitigation: operation

Built Heritage Resource and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
1 Lunt Cottages, Baginton (noise and vibration: operational)	9.6:B1	Medium	-	Long term negligible positive	Neutral
2 Lunt Cottages, Baginton (noise and vibration: operational)	9.6:B2	Medium	-	Long term negligible positive	Neutral
Outbuilding at Rose Cottage, Baginton (noise and vibration: operational)	9.6:B3	Medium	-	Long term negligible positive	Neutral
Baginton Bridge (noise and vibration: operational)	9.6 and 9.10: B4	Medium	-	Long term negligible positive	Neutral
Boundary post north of the Tollbar End roundabout (noise and vibration operational)	9.6 and 9.13:B7	Low	-	Long term negligible positive	Neutral
Boundary post east of the Tollbar End roundabout (noise and vibration operational)	9.6 and 9.13:B8	Low	-	Long term negligible positive	Neutral
550-552 London Road, Willenhall (noise and vibration: operational)	9.6 and 9.13:B9	Low	-	Long term negligible positive	Neutral
665 London Road, Willenhall (noise and vibration: operational)	9.6 and 9.13:B10	Low	-	Long term negligible positive	Neutral

4 Historic Landscapes

4.1 Introduction

4.1.0.1 Historic landscapes comprise areas of visible historic landscape character, which give the historic dimension of today's rural and urban landscapes (EH and LCC 2004, 6). These are the physical manifestation of social relationships between people in the past, and of their interaction through time with the environment and the natural world (CC 1994). A consideration of historic landscapes does not include Assessment of individual historic elements, which are considered in the previous two Sections, but rather whole patterns which can be perceived in the present landscape including settlement patterns, field systems, woodland, industry and communication systems (Rippon 2004).

4.2 Relevant Legislation and Guidance

4.2.0.1 Legislation concerning the Assessment of environmental effects is contained in the Highways Act 1980. Guidance concerning historic parks and gardens under development planning and control systems is provided in *PPG 15: Planning and the Historic Environment* (1994).

4.2.0.2 The Regional Spatial Strategy for the West Midlands (adopted June 2004), the Coventry Development Plan (adopted December 2001) Saved Policies and the Warwick District Local Plan (September 2007) contains policies on historic landscapes, which are of relevance to the Scheme. These policies, and the compliance of the Scheme with them, are discussed in Chapter 6; Policies and Plans.

4.2.0.3 This report has been produced in accordance with HA 208/07, specifically Annex 7, Historic Landscapes, and *Assessing the Effect of Road Schemes on Historic Landscape Character* (Highways Agency 2007).

4.3 Methodology

4.3.1 Study Area and Historic Landscape Character Unit Scale

4.3.1.1 In accordance with Annex 7: Historic Landscapes of HA 208/07 and *Assessing the Effect of Road Schemes on Historic Landscape Character* (Highways Agency 2007), the necessity of selecting a study area, and Historic Landscape Character Units (HLCU) within it, at an appropriate scale to the proposed Scheme was recognised.

4.3.1.2 Two national frameworks currently exist for historic landscape characterisation (Fairclough 2001, 23): the Countryside Agency's Character of England Map (Countryside Agency 1997) and English Heritage's *Atlas of Settlement Diversity* (Roberts and Wrathmell 2000). The Scheme lies within the *West Midlands* sub-province of the *Northern and Western* province in the *Atlas of Settlement Diversity* (Roberts and Wrathmell, 2000). The Scheme also lies on the edge of the *Arden* and *Dunsmore and Feldon*

Countryside Agency Landscape Character Areas (Countryside Agency 1997; current Landscape character is discussed separately in Part 7 of this ES). These areas are of too large a geographical scale to be appropriate for the Assessment of a project with a very restricted area of land-take in an established transport corridor, such as the Scheme.

- 4.3.1.3 The use of the Landscape Character Types defined in the Warwickshire Landscape Guidelines, produced by Warwickshire County Council and the Countryside Commission in 1993 (WCC and CC 1993) was also considered. The proposed Scheme lies within the Dunsmore Plateau Farmlands area. However, again, these were thought to be of an inappropriately large geographical scale.
- 4.3.1.4 Therefore a Study Area was defined which was more in proportion to the area of proposed development, within which HLCU could be defined that were of an appropriate geographical scale to assess the impacts of the proposed Scheme. It was important that the Study Area covered all areas which may be affected by the Scheme, including the footprint and the visual envelope, whilst it was also considered appropriate to choose an area which had historic landscape integrity.
- 4.3.1.5 Conventional units for defining areas of historic landscape integrity comprise historic townships and civil parishes. Accordingly, an area comprising South Coventry Borough Constituency and the five adjacent parishes in Warwickshire was initially considered as a potential Study Area, but this again comprised an inappropriately large geographical area, and did not represent an area of common general historic landscape character. Consequently, this initial area was narrowed to the southeast Coventry urban fringe, stretching from Gibbet Hill to the Coventry / Rugby railway line along the edge of the Coventry residential area, including parts of the parishes of Stoneleigh; Baginton; Ryton on Dunsmore; and Brandon and Bretford. This reflects the bounds of an area with the same broad character as the environs of the Scheme; generally non-residential but semi-urban in character, with areas of industry and agricultural land, within the valleys of the Rivers Sherbourne, Sowe and Avon. There is no clear southern boundary to this area, as the mixed nature of land uses is a characteristic of the type. However, a boundary has been drawn where the landscape becomes more rural in overall character, with fewer larger industrial and commercial landscape features.

4.3.2 Historic Landscape Character Units

- 4.3.2.1 In order to assess the existing conditions, the Study Area was divided into smaller Historic Landscape Character Units (HLCU). The appropriate geographical scale of these was considered to be Historic Landscape Character type areas; distinctive and repeated combinations of components, defining generic historic landscapes such as *ancient woodland* or *parliamentary enclosure* (Rippon 2004). This was the scale of the HLCU on which the impacts of the Scheme are assessed, as they are considered to be of large enough scale to merit a landscape description, but not so extensive that the changes the Scheme entails are 'swallowed up' within areas.

- 4.3.2.2 Historic landscape characterisation had not previously been completed for the area chosen as the Study Area for this Assessment. A historic landscape characterisation project is currently underway for Coventry City, but has so far covered only a very small area in the vicinity of the Scheme. In Warwickshire, Historic Landscape Characterisation is further forward, with raw data collection having been completed for almost the entire county. However, as the analysis of the data has not been undertaken, WHER was unwilling to issue the data in its incomplete form.
- 4.3.2.3 As such, it was considered appropriate to carry out Historic Landscape Characterisation, in line with the guidance given in paragraph 5.1.5 of *Assessing the Effects of Road Schemes on Historic Landscape Character* (HA 2007). A simplified version of the character types defined by Warwickshire County Council (WCC) for their current characterisation programme was used to define HLCU within the Study Area. This was considered to be the methodology best suited to the area as it comprised historic landscape character types formulated specifically for the characterisation of both Warwickshire and Coventry, and so was geographically relevant to the Study Area. This methodology was designed with a consideration of the most recent review of national methodology; *Historic Landscape Characterisation: Taking Stock of the Method* (EH and SCC 2003). The project design for the Warwickshire County Council project was based on *Historic Landscape Characterisation: Template Project Design* (English Heritage 2002).
- 4.3.2.4 It was necessary to simplify the WCC characterisation types in order to provide a workable number of HLCU of an appropriate geographical scale on which the impact of the Scheme might be assessed. Although historic maps were considered, it is the historic elements visible in the present landscape which are to be characterised. A full list of the Historic Landscape Character types used for the characterisation is given in Appendix 9.4.
- 4.3.2.5 Key data sources for the completion of the historic landscape characterisation were:
- First Edition Ordnance Survey maps;
 - Modern 1:25,000 Ordnance Survey maps;
 - Modern 1:10,000 Ordnance Survey maps;
 - Aerial photographs;
 - Geological maps;
 - Information on Scheduled Monuments, Listed Parks and Gardens, and Registered battlefields from English Heritage;
 - Information on parks and gardens from the Warwick District Local Register of Parks and Gardens and Coventry City Council Planning Department; and,
 - Information of Ancient Woodland from Natural England.

- 4.3.2.6 The land within the Study Area was divided into polygons of broad historic landscape character type. Type areas of post-1880s land use (communication, industry, leisure etc.) and other discreet areas, such as settlements, designed landscapes and ancient woodlands were mapped first. Type areas which had been directly influenced by these land uses were then recorded (fields encroached upon and consolidated as a result of post-1880s constructions). The remaining land, generally agricultural, was divided into type areas by reference to underlying geology (floodplain / meadow), boundary shape and boundary survival.
- 4.3.2.7 Where historic landscape character types are present in close proximity but not continuous, they were sometimes grouped if they shared common origins (for example, those type areas formed through the influence of post-1880s developments in the vicinity of Stivichall Junction and the areas of pre-1880s settlement in Baginton which are now separated by post-1880s settlement areas).
- 4.3.2.8 The characterisation shown in Figure 9.7 and detailed in Appendix 9.5 has been a large scale process, aiming to identify areas of broad type, rather than each occurring example of specific types, a practice recognised in *Historic Landscape Characterisation: Template Project Design* (EH 2002, 11). Necessarily, small areas of certain types have been included within others. The areas identified are referred to in the text by numbers prefixed with 'C'.

4.3.3 Mitigation Strategy

4.3.3.1 The historic landscape objectives of mitigation are to:

- Minimise the detrimental physical effects of the Scheme upon the historic landscape, as far as is reasonably practicable; and,
- Minimise the effects of the Scheme on the historic landscape in terms of detrimental impact through visual intrusion, noise and ambience.

4.3.4 Assessment Methodology

Assessment of Value

- 4.3.4.1 All parts of the English landscape are historical to some degree (CC 1994), and hence have some value. Values were assigned to all of the HLCU identified within the Study Area, using Table 9.10 below, based on Table 7.1 of HA208/07. (The historic landscape character types defined by WCC had not been assigned values). The value scores for each HLCU are shown in Appendix 9.5, together with their descriptions. This assigned value is mapped on Figure 9.8.
- 4.3.4.2 In line with the guidance in HA 208/07 and *Assessing the Effect of Road Schemes on Historic Landscape Character* (Highways Agency 2007), the value of HLCU has been determined with reference to their character, distinctiveness, time depth, history of change, legibility, fragility, cultural associations and research potential. Landscape designations, such as

Registered Parks and Gardens are taken into account, but individual historical or archaeological elements do not necessarily confer great value to the HLCU in which they are located.

Table 9.10 Criteria for assessing HLCU value

Value	Description
Very High	World Heritage Sites inscribed for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time depth or other critical factor(s).
Medium	Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Landscapes with little or no significant historical interest.

Assessment of Impact Magnitude

4.3.4.3 Regarding historic landscape, impacts are considered to be changes as a result from the Scheme, and that would not have otherwise occurred, and which alter the character of an HLCU. HLCU are the units on which the impacts of the Scheme are assessed, as they are considered to be of large enough scale to merit a landscape description, but not so extensive that the changes the Scheme entails are 'swallowed up' within areas.

4.3.4.4 Factor taken into account when assessing the magnitude of the impact on HLCU include:

- How changes to archaeological remains and historic buildings would change the character of the historic landscape;
- Changes affecting historic spatial pattern;
- Changes of characteristic historic landscape elements;
- Changes to historic vegetation;

- Changes in vibration, visual intrusion and noise (including the nature of sounds); and,
- Changes to land use.

4.3.4.5 The definitions for magnitude of impact are defined in Table 9.11, below, based on Table 7.3 of HA208/07.

Table 9.11 Criteria for Assessing Impact Magnitude (Historic Landscapes)

Magnitude of Impact	Description of Impact
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access: resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No change	No change to elements, parcels or components; no visual or audible changes; no changes arising from amenity or community factors.

4.3.4.6 The definition of elements, parcels and components (taken from Rippon 2004) are as follows:

- Elements: individual features, such as earthworks, *built structures, hedges, woods, roads, tracks and planned planting* in parks and gardens.
- Parcels: Elements combined to produce, for example, *farmsteads or fields*.
- Components: larger agglomerations of parcels, such as *dispersed settlements or straight-sided field systems*.

Assessment of Significance of Effects

4.3.4.7 Having defined the value of the HLCU and the magnitude of impact, the significance of any effects upon the historic landscape can be assessed, using Table 9.1 above.

4.4 Existing Conditions

- 4.4.0.1 The HLCU identified within the Study Area are illustrated on Figure 9.7 and listed in full in Appendix 9.5, where they have also been assigned values in line with Table 9.10.
- 4.4.0.2 As would be expected for an area of urban fringe, a mix of historic landscape character types is present, with much post-1880s industry, leisure and communication areas requiring large sites unavailable within Coventry City, but taking advantage of its proximity for transport links and population. Also large facilities serving Coventry, such as sewage works, are present within the Study Area. A characteristic of the fringe is large areas of land where fields have been encroached upon by post-1880s development and often consolidated, resulting in recently reorganised landscapes around post-1880s features.
- 4.4.0.3 However, several areas of agricultural land retaining 19th-century enclosure patterns are present, mainly in the western part of the Study Area, although smaller pockets survive in the eastern part. Large areas of meadow survive on the floodplain of the Avon and a zone of Ancient Woodland survives at Willenhall.

4.5 Historic Landscape Value

- 4.5.0.1 Values are given for each HLCU in Appendix 9.5 and illustrated on Figure 8. No HLCU of greater than medium value are present within the Study Area.
- 4.5.0.2 Three HCLUs of **medium** value are present. These include areas of pre-1880s settlement at Baginton (Figures 9.7 and 9.8, **C30**). Two areas of Ancient Woodland at Willenhall and Wainbody (Figures 9.7 and 9.8, **C28** and **C31**) have also been assessed as medium importance, due to their time depth. These three areas are all located outside the Scheme footprint (Figure 9.8).
- 4.5.0.3 HLCU of **low** value occur in four main parts of the Study Area, all outside the Scheme footprint: to the south of the village of Baginton; to the south and west of Finham; to the southeast of Tollbar End roundabout; and at Coventry Airport. HLCU of this value within the Study Areas include meadow, straight bounded enclosures and enclosures retaining earlier landscape features. Coventry Airport, an area of post-1880s communication, has also been assessed as of low value, as it forms a robust landscape which has integrity as a unit.
- 4.5.0.4 HLCU of **negligible** value cover the largest proportion of the Study Area. These comprise some post-1880s transport links and areas of post-1880s leisure, settlement, industry, commerce, civic sites and municipal sites, as well as large modern fields and fields formed through boundary removal as a result of post-1880s development.

4.6 Design Appraisal and Mitigation

4.6.1 Mitigation

- 4.6.1.1 Where temporary land-take occurs within the Scheme, care would be taken to ensure that the historic character of the land is restored following construction works.
- 4.6.1.2 Although the visual impact of the Scheme is negligible, measures would be taken to ensure visible changes are as small as possible. These include the replacement of any screening vegetation which would be removed during construction works, appropriate treatment of new slopes with seeding or planting and the use of protection fences during construction to prevent damage to vegetation which would be to be retained.

4.7 Impacts following Mitigation

4.7.1 Construction

- 4.7.1.1 Impacts following mitigation are discussed in detail below and summarised in Tables 9.12 and 9.13, at the end of the chapter.
- 4.7.1.2 The Scheme comprises road improvements, mainly within areas of post-1880s communication historic landscape character type (Figures 9.7 and 9.8, areas **C1** and **C2**). The development within these areas would be in keeping with their historic landscape character, with very minor changes to key elements (the highways themselves), virtually unchanged views from them and of them, resulting in **permanent negligible negative** impacts on the character of these areas.
- 4.7.1.3 Small areas of land-take would encroach into two HLCU of fields formed through boundary removal as a result of post-1880s development (Figures 9.7 and 9.8, areas **C16** and **C17**). These type areas have already been encroached upon by post-1880s developments and the construction of water management and bioretention features associated with communication routes would be largely in fitting with their historic character, resulting in only very minor changes to elements. One of these encroachments, where the site compound would be constructed, would be temporary. These would be **permanent negligible negative** impacts on the character of these HLCU.
- 4.7.1.4 The construction of the east facing slip roads to Tollbar End roundabout and the revised alignment of the A46 Coventry Eastern Bypass, to the northeast of the Tollbar End roundabout would encroach into an HLCU of post-1880s settlement, changing a small part of the HLCU from post-1880s settlement to modern communication, resulting in changes to few key landscape elements (Figures 9.7 and 9.8, area **C12**). The historic character of the HLCU would remain predominantly residential, and the expansion of the adjacent junction would have a limited impact on the character of the HLCU as the junction is already a prominent feature. These changes would be a **permanent minor negative** impact on the historic character of this unit.

- 4.7.1.5 The proposed carriageway would also encroach into a small HLCU of post-1880s industry (Figures 9.7 and 9.8, area **C5**). This encroachment would result in very minor changes to an element contributing to the industrial character of the HLCU and views from it (the area affected is currently used for car parking) and would have a **permanent negligible negative** impact on the historic character of this area.
- 4.7.1.6 The Scheme would be visible from twelve further HLCU (Figures 9.7 and 9.8, **C3, C4, C6, C10, C13, C14, C23, C26, C28, C29, C32** and **C35**). The majority of the proposed works comprise changes to communications within HLCU currently characterised by communications, and it is considered that these changes would have almost no impact upon the historic character of HLCU from which they would be visible, resulting in **negligible negative** impacts.
- 4.7.1.7 Nuisance noise levels are anticipated during the construction of the Scheme, in its immediate vicinity (Figure 14.2, C1, C3, C4 and C5). These lie within HLCU **C12** and **C13**, and HLCU within the immediate vicinity of these comprise **C1, C2, C4, C5, C7, C14, C16** and **C17**. The temporary and intermittent nature of the noise at these locations, and the fact that only parts of the HLCU will experience this nuisance noise and vibration, mean that impacts are anticipated to be **temporary negligible negative**.

4.7.2 Operation

- 4.7.2.1 As the visual impacts upon the HLCU will take place from the construction of the proposed scheme onwards, they have been assessed as part of the construction impacts above.
- 4.7.2.2 None of the HLCU lie entirely within the areas of operational noise levels modelled for 2014 (against a 'do minimum' scenario) on Figure 14.8. HLCU partly within these impact areas comprise **C1, C2, C4, C5, C7, C12, C13, C14, C16, C17, C18** and **C23**.
- 4.7.2.3 The operational noise changes within **C1** are mixed. Some increase in noise is predicted in the areas east of the Stivichall Junction, but some decreases are anticipated in other parts of the HLCU. Overall, as traffic noise is considered to be part of the current character of this HLCU, the anticipated very minor changes in operational noise is considered to have **no change** on the character of this HLCU.
- 4.7.2.4 Only a very small area of **C2** and **C7** lie within the mapped noise impact zones. These small areas are anticipated to experience small increases in operational noise in the small parts, and small decreases in the remainder of the areas. Traffic noise is already part of the character of these HLCU, and so overall, operational noise changes are anticipated to have **no change** on the character of the HLCU. Likewise HLCU **C5, C12, C16, C17** will experience increases in operational noise in some areas and decreases over the remainder of the HLCU. Traffic noise is already part of the character of these HLCU, and so overall **no change** is anticipated on the character of these HLCU.

- 4.7.2.4 HLCU **C4, C13, C14, C18** and **C23** are anticipated to experience very slight reductions in operational noise in 2014, which will comprise **long term negligible positive impacts**.

4.8 Assessment of Effects

4.8.1 Construction

- 4.8.1.1 All of the effects of the proposed construction works on the historic character of the HLCU have been assessed as of **neutral** significance. The majority of the significances have resulted from negligible negative impacts upon HLCU of negligible value. Where negligible negative impacts have been predicted for resources of medium and low value, professional judgement has been used to determine the significance of the effect as neutral, rather than slight as the change in character predicted for the HLCU is extremely slight. Where a minor impact is predicted for a HLCU of negligible importance, a neutral significance of effect was determined as the change in character was not thought to merit a slight adverse significance.

4.8.2 Operation

- 4.8.2.1 All of the effects of the operational noise changes associated with the Scheme on the historic character of the HLCU have been assessed as of **neutral** significance. The majority of the significances have resulted from no change impacts upon HLCU of negligible and low value, and negligible positive impacts on resources of negligible value. Where a negligible positive impact has been predicted for a HLCU of low value, professional judgement has been used to determine the significance of the effect as neutral, rather than slight as very little of the HLCU lies within the impact area.

Table 9.12: Effects on Historic Landscapes following mitigation: construction

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
A45, A46, A444, physical and visual impact	9.7 and 9.8: C1	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
A45, A46, A444, construction noise and vibration	9.7 and 9.8: C1	Negligible		Negligible temporary negative	Neutral
Coventry Airport, visual	9.7 and 9.8: C2	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Coventry Airport, construction noise and vibration	9.7 and 9.8: C2	Low		Negligible temporary negative	Neutral

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
Area of post 1880s development, visual	9.7 and 9.8: C3	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible negative	Neutral
School and adjacent facilities, visual	9.7 and 9.8: C4	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
School and adjacent facilities, construction noise and vibration	9.7 and 9.8: C4	Negligible		Negligible temporary negative	Neutral
Stonebridge Trading Estate, physical and visual	9.7 and 9.8: C5	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral
Stonebridge Trading Estate, construction noise and vibration	9.7 and 9.8: C5	Negligible		Negligible temporary negative	Neutral
Sewage works at Finham Bridge, visual	9.7 and 9.8: C6	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Middlemarch Business Park, construction noise and vibration	9.7 and 9.8: C7	Negligible		Negligible temporary negative	Neutral
Golf Course	9.7 and 9.8: C10	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Post-1880s housing around Tollbar End roundabout, physical and visual	9.7 and 9.8: C12	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Minor permanent negative	Neutral
Post-1880s housing around Tollbar End roundabout, construction noise and vibration	9.7 and 9.8: C12	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Temporary negligible negative	Neutral
Finham post 1880s settlement, visual	9.7 and 9.8: C13	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Finham post 1880s settlement, construction noise and vibration	9.7 and 9.8: C13	Negligible		Negligible temporary negative	Neutral

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
Baginton post 1880s settlement, visual	9.7 and 9.8: C14	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Baginton post 1880s settlement, construction noise and vibration	9.7 and 9.8: C14	Negligible		Negligible temporary negative	Neutral
Fields affected by the construction of post 1880s development at Stonebridge, physical and visual	9.7 and 9.8: C16	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral
Fields affected by the construction of post 1880s development at Stonebridge, construction noise and vibration	9.7 and 9.8: C16	Negligible		Negligible temporary negative	Neutral
Fields affected by the construction of post 1880s development at Tollbar End roundabout, physical and visual	9.7 and 9.8: C17	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral
Fields affected by the construction of post 1880s development at Tollbar End roundabout, construction noise and vibration	9.7 and 9.8: C17	Negligible		Negligible temporary negative	Neutral
River Avon floodplain and meadow, visual	9.7 and 9.8: C23	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Area of fields with predominantly straight boundaries, visual	9.7 and 9.8: C26	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Willenhall Wood, visual	9.7 and 9.8: C28	Medium	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
Area of fields with predominantly straight boundaries at Manor Fields Farm, visual	9.7 and 9.8: C29	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Fields affected by the construction of the A46, visual	9.7 and 9.8: C32	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Area of enclosure retaining sinuous boundaries, visual	9.7 and 9.8: C35	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral

Table 9.13: Effects on Historic Landscapes following mitigation: operation

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
A45, A46, A444, operation noise and vibration	9.7 and 9.8: C1	Negligible		No change	Neutral
Coventry Airport, operation noise and vibration	9.7 and 9.8: C2	Low		No change	Neutral
School and adjacent facilities, operation noise and vibration	9.7 and 9.8: C4	Negligible		Negligible long term positive	Neutral
Stonebridge Trading Estate, operation noise and vibration	9.7 and 9.8: C5	Negligible		No change	Neutral
Middlemarch Business Park, operation noise and vibration	9.7 and 9.8: C7	Negligible		No change	Neutral
Post-1880s housing around Tollbar End roundabout, operation noise and vibration	9.7 and 9.8: C12	Negligible		No change	Neutral
Finham post 1880s settlement, operation noise and vibration	9.7 and 9.8: C13	Negligible		Negligible long term positive	Neutral
Baginton post 1880s settlement	9.7 and 9.8: C14	Negligible		Negligible long term positive	Neutral
Fields affected by	9.7 and	Negligible		No change	Neutral

HLCU and Impact	Figure(s)	Value	Mitigation	Impact magnitude	Significance of Effect
the construction of post 1880s development at Stonebridge, operation noise and vibration	9.8: C16				
Fields affected by the construction of post 1880s development at Tollbar End roundabout, operation noise and vibration	9.7 and 9.8: C17	Negligible		No change	Neutral
Fields which have been encroached on by the A46 and housing, operation noise and vibration	9.7 and 9.8: C18	Negligible		Negligible long term positive	Neutral
River Avon floodplain and meadow, operation noise and vibration	9.7 and 9.8: C23	Low		Negligible long term positive	Neutral

5 Conclusions and Summary

- 5.0.0.1 The following Table 9.13 summarises the impacts and effects on the cultural heritage resource, following mitigation, which have been identified in the preceding Chapters 2, 3 and 4.
- 5.0.0.2 Where it has been possible to assess physical effects on archaeological remains, including effects on possible remains of ridge and furrow earthworks, modern earthworks and sites suggested by fieldnames, they were considered to be of slight adverse significance at worst. Some effects remain uncertain, including those on an area of potential where cropmarks are present, and areas of land take on gravels and alluvium. Non-physical impacts on Scheduled Monuments in the vicinity are mixed but of only slight significance at most. Effects include slight adverse visual effects, and a slight beneficial operational noise effect. The overall effect on archaeological remains is considered to be **slight adverse**, although this is partially based on some 'worst-case' assessments and if no archaeological remains are present within the areas of uncertain potential mentioned above, this effect would be of lesser significance. Hence, as uncertainty remains over areas of archaeological potential and confidence in this Assessment is **moderate**. This uncertainty will be partially resolved during archaeological investigation and recording works during topsoil stripping in these areas.
- 5.0.0.3 For historic building assets, a temporary construction noise effect and a permanent visual effect of slight adverse significance have been assessed. A slight beneficial effect would result from the restoration of context to a Locally Listed boundary post. All other effects have been assessed as being of neutral significance. Overall, the effect of the Scheme on historic buildings is considered to be **slight adverse**. Confidence in this Assessment of effect is **high**.
- 5.0.0.4 All effects on the historic landscape have been assessed as being of neutral significance and hence the overall effect is assessed as **neutral**. Confidence in this Assessment is **high**.
- 5.0.0.5 Generally, most adverse effects will take place during the construction phase, such as physical impacts upon archaeological resources and visual impacts upon the settings of cultural heritage resources. Operational effects are typically neutral, although a positive effect is anticipated to take place on the setting of the Lunt fort, due to reduced noise levels, compared to a 'do-minimum' scenario.
- 5.0.0.5 The cultural heritage resource is an integrated whole, which has only been divided between the three sub-topics as specialised evaluation of their value, appropriate mitigation and magnitude of the impact upon them was required. For example, a cluster of Listed Buildings lie within the historic settlement of Baginton, which is recognised in the historic landscape characterisation, and higher concentrations of archaeological sites are present in areas in which recent development has taken place, which can be predicted from historic landscape character units.
- 5.0.0.6 As a whole, the cultural heritage resource of the vicinity of the Scheme could be described as a transport corridor area on the fringe of the modern

city, joining and bypassing areas of historic settlement. The construction and modification of this transport corridor has led to the discovery of prehistoric and Roman sites in the 20th century. As the Scheme comprises modifications to the existing transport corridor, the overall effects upon the historic landscape and the built heritage were likely to be of a small magnitude and have been shown to be of neutral significance during detailed Assessment.

- 5.0.0.7 Overall, considering the cultural heritage resource as a whole, the effect of the Scheme is considered to be **slight adverse**, reflecting the slight adverse effect on archaeological remains and historic buildings. Confidence in this Assessment is **moderate**, due to some areas in which the value of archaeological remains present is currently unknown.

Table 9.14 Summary of Construction Impacts

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
Archaeological remains Section 2 Appendix 9.2 Figures 9.1-9.5, 9.9-9.14	Area of new land-take to the east of Tollbar End roundabout with low potential for Romano-British and Medieval remains and where three cropmarks are present	Figures 9.2, 9.5 and 9.14	unknown	Preservation of remains <i>in situ</i> .	Minor negative permanent impact, if archaeological remains are present. If absent, no impact	Uncertain
	Areas of land-take on gravel terraces and glacial gravels where there is potential for prehistoric and Romano-British remains	Figure 9.2	unknown	Programme of archaeological investigation during construction.	If present and in worst case, moderate permanent negative. If absent: No impact	Uncertain
	Evidence of ridge and furrow earthworks surviving below current ground level in one area of proposed stormwater wetland and new landtake to the east of the Tollbar End roundabout	Figure 9.5	Negligible	Programme of archaeological investigation during construction	In worst case, minor permanent negative	In worst case, slight adverse
	Earthworks recorded to the west of Tollbar End roundabout in area proposed for carriageway widening	Figures 9.1 and 9.13, site A1.3	Negligible	Programme of archaeological investigation during construction	In worst case, minor permanent negative	In worst case, slight adverse
	Remains indicated by field-name Barn in proposed compound area and land-take to the east of the Tollbar End roundabout	Figure 9.4	Negligible	Programme of archaeological investigation during construction	In worst case, minor permanent negative	In worst case, slight adverse
	Remains indicated by field-name Little Well Hill in area of stormwater wetland	Figure 9.4	Negligible	Programme of archaeological investigation during construction	In worst case, minor permanent negative	In worst case, slight adverse
	Remains of pond to east of Tollbar End Roundabout	9.5 and 9.14	Negligible	-	No change	Neutral
	Hedgerow to the east of Tollbar End Junction	9.14	Low	-	Major permanent negative	Slight adverse

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
	Possible evidence of strip fields beneath embankment close to King's Hill	9.9	Low	-	No change	Neutral
	The Lunt Roman Fort (visual impact)	Figure 9.3	High	Landscaping	Negligible negative	Slight adverse
	King's Hill deserted medieval village (visual impact)	Figure 9.3 and 9.9	High	Landscaping	Negligible negative	Slight adverse
Historic buildings Section 3 Appendix 9.3 Figure 9.6, 9.9-9.14	1 Lunt Cottages, Baginton (visual impact)	9.6:B1	Medium	Landscaping	Permanent negligible negative	Neutral
	2 Lunt Cottages, Baginton (visual impact)	9.6:B2	Medium	Landscaping	Permanent negligible negative	Neutral
	Outbuilding at Rose Cottage, Baginton (visual impact)	9.6:B3	Medium	Landscaping	Permanent negligible negative	Neutral
	Baginton Bridge (noise and vibration: construction)	9.6 and 9.10: B4	Medium	Good working practice for plant use	Temporary minor negative	Slight adverse
	Hill Farmhouse (visual impact)	9.6 and 9.9:B5	Medium	Landscaping	Permanent minor negative	Slight adverse
	Ryton Bridge (visual impact)	9.6:B6	Medium	Landscaping	Permanent negligible negative	Neutral
	Boundary post north of the Tollbar End roundabout (physical)	9.6 and 9.13:B7	Low	Re-siting along original boundary and on correct orientation	Permanent moderate positive	Slight Beneficial
	Boundary post east of the Tollbar End roundabout (physical)	9.6 and 9.13:B8	Low	Re-siting as close to original boundary as road layout allows	No change	Neutral
	550-552 London Road, Willenhall (visual impact)	9.6 and 9.13:B9	Low	Sympathetic planting	Permanent minor negative	Neutral
	550-552 London Road, Willenhall (noise and vibration: construction)	9.6 and 9.13:B9	Low	Good working practice for plant use	Temporary minor negative	Neutral
	665 London Road, Willenhall (visual impact)	9.6 and 9.13:B10	Low	Landscaping	Permanent negligible negative	Neutral

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
	665 London Road, Willenhall (noise and vibration: construction)	9.6 and 9.13:B10	Low	Good working practice for plant use	Temporary minor negative	Neutral
Historic landscape Section 4 Appendix 9.4 Figures 9.7 and 9.8	A45, A46, A444, physical and visual impact	9.7 and 9.8: C1	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	A45, A46, A444, construction noise and vibration	9.7 and 9.8: C1	Negligible		Negligible temporary negative	Neutral
	Coventry Airport, visual	9.7 and 9.8: C2	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Coventry Airport, construction noise and vibration	9.7 and 9.8: C2	Low		Negligible temporary negative	Neutral
	Area of post 1880s development, visual	9.7 and 9.8: C3	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible negative	Neutral
	School and adjacent facilities, visual	9.7 and 9.8: C4	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	School and adjacent facilities, construction noise and vibration	9.7 and 9.8: C4	Negligible		Negligible temporary negative	Neutral
	Stonebridge Trading Estate, physical and visual	9.7 and 9.8: C5	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral
	Stonebridge Trading Estate, construction noise and vibration	9.7 and 9.8: C5	Negligible		Negligible temporary negative	Neutral
	Sewage works at Finham Bridge, visual	9.7 and 9.8: C6	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
Middlemarch Business Park, construction noise and vibration	9.7 and 9.8: C7	Negligible		Negligible temporary negative	Neutral	

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
	Golf Course	9.7 and 9.8: C10	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Post-1880s housing around Tollbar End roundabout, physical and visual	9.7 and 9.8: C12	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Minor permanent negative	Neutral
	Post-1880s housing around Tollbar End roundabout, construction noise and vibration	9.7 and 9.8: C12	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Temporary negligible negative	Neutral
	Finham post 1880s settlement, visual	9.7 and 9.8: C13	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Finham post 1880s settlement, construction noise and vibration	9.7 and 9.8: C13	Negligible		Negligible temporary negative	Neutral
	Baginton post 1880s settlement, visual	9.7 and 9.8: C14	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Baginton post 1880s settlement, construction noise and vibration	9.7 and 9.8: C14	Negligible		Negligible temporary negative	Neutral
	Fields affected by the construction of post 1880s development at Stonebridge, physical and visual	9.7 and 9.8: C16	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral
	Fields affected by the construction of post 1880s development at Stonebridge, construction noise and vibration	9.7 and 9.8: C16	Negligible		Negligible temporary negative	Neutral
	Fields affected by the construction of post 1880s development at Tollbar End roundabout, physical and visual	9.7 and 9.8: C17	Negligible	Planting and slope treatment around Scheme to minimise visual impact. Reinstatement of historic character following removal of temporary works	Negligible permanent negative	Neutral

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
	Fields affected by the construction of post 1880s development at Tollbar End roundabout, construction noise and vibration	9.7 and 9.8: C17	Negligible		Negligible temporary negative	Neutral
	River Avon floodplain and meadow, visual	9.7 and 9.8: C23	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Area of fields with predominantly straight boundaries, visual	9.7 and 9.8: C26	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Willenhall Wood, visual	9.7 and 9.8: C28	Medium	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Area of fields with predominantly straight boundaries at Manor Fields Farm, visual	9.7 and 9.8: C29	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Fields affected by the construction of the A46, visual	9.7 and 9.8: C32	Negligible	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral
	Area of enclosure retaining sinuous boundaries, visual	9.7 and 9.8: C35	Low	Planting and slope treatment around Scheme to minimise visual impact	Negligible permanent negative	Neutral

Table 9.15: Summary of Operation Impacts

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
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Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
Archaeological remains Section 2 Appendix 9.2 Figure 9.3	The Lunt Roman Fort (noise and vibration impact: long-term operational)	Figure 9.3	High	-	Negligible long term positive	Slight beneficial
Historic buildings Section 3 Appendix 9.3 Figure 9.6, 9.9-9.14	1 Lunt Cottages, Baginton (noise and vibration: operational)	9.6:B1	Medium	-	Long term negligible positive	Neutral
	2 Lunt Cottages, Baginton (noise and vibration: operational)	9.6:B2	Medium	-	Long term negligible positive	Neutral
	Outbuilding at Rose Cottage, Baginton (noise and vibration: operational)	9.6:B3	Medium	-	Long term negligible positive	Neutral
	Baginton Bridge (noise and vibration: operational)	9.6 and 9.10: B4	Medium	-	Long term negligible positive	Neutral
	Boundary post north of the Tollbar End roundabout (noise and vibration operational)	9.6 and 9.13:B7	Low	-	Long term negligible positive	Neutral
	Boundary post east of the Tollbar End roundabout (noise and vibration operational)	9.6 and 9.13:B8	Low	-	Long term negligible positive	Neutral
	550-552 London Road, Willenhall (noise and vibration: operational)	9.6 and 9.13:B9	Low	-	Long term negligible positive	Neutral
	665 London Road, Willenhall (noise and vibration: operational)	9.6 and 9.13:B10	Low	-	Long term negligible positive	Neutral
Historic landscape Section 4	A45, A46, A444, operation noise and vibration	9.7 and 9.8: C1	Negligible		No change	Neutral
	Coventry Airport, operation noise and vibration	9.7 and 9.8: C2	Low		No change	Neutral

Sub-topic	Asset and Impact	Number in text or Figure	Value	Mitigation	Impact magnitude	Significance of Effect
Appendix 9.4 Figures 9.7 and 9.8	School and adjacent facilities, operation noise and vibration	9.7 and 9.8: C4	Negligible		Negligible long term positive	Neutral
	Stonebridge Trading Estate, operation noise and vibration	9.7 and 9.8: C5	Negligible		No change	Neutral
	Middlemarch Business Park, operation noise and vibration	9.7 and 9.8: C7	Negligible		No change	Neutral
	Post-1880s housing around Tollbar End roundabout, operation noise and vibration	9.7 and 9.8: C12	Negligible		No change	Neutral
	Finham post 1880s settlement, operation noise and vibration	9.7 and 9.8: C13	Negligible		Negligible long term positive	Neutral
	Baginton post 1880s settlement	9.7 and 9.8: C14	Negligible		Negligible long term positive	Neutral
	Fields affected by the construction of post 1880s development at Stonebridge, operation noise and vibration	9.7 and 9.8: C16	Negligible		No change	Neutral
	Fields affected by the construction of post 1880s development at Tollbar End roundabout, operation noise and vibration	9.7 and 9.8: C17	Negligible		No change	Neutral
	Fields which have been encroached on by the A46 and housing, operation noise and vibration	9.7 and 9.8: C18	Negligible		Negligible long term positive	Neutral
	River Avon floodplain and meadow, operation noise and vibration	9.7 and 9.8: C23	Low		Negligible long term positive	Neutral

Appendix 9.1

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WCC (Warwickshire County Council) and CC (Countryside Commission) 1993a *Warwickshire Landscapes Guidelines: Arden*, Warwickshire County Council

WHER Warwickshire Historic Environments Record

Cartographic Sources

- | | |
|------|--|
| 1773 | Stivichall Estate Map (CHER) |
| 1787 | Map of the parish of Stivichall (CHER) |
| 1841 | Baginton Tithe Map, Surveyed TH Haughton (CHER) |
| 1847 | Map of the parish of Willenhall (CHER) |
| 1849 | St Michael Tithe Map (CHER) |
| 1886 | First Edition Ordnance Survey Map, 6" series, Warwickshire sheet 26NE |
| 1886 | First Edition Ordnance Survey Map, 6" series, Warwickshire sheet 27NW |
| 1905 | Second Edition Ordnance Survey Map, 6" series, Warwickshire sheet 26NE |

- 1906 Second Edition Ordnance Survey Map, 6" series, Warwickshire sheet 27NW
- 1926 Third Edition Ordnance Survey Map, 6" series, Warwickshire sheet 26NE
- 1938 Third Edition (revised) Ordnance Survey Map, 6" series, Warwickshire sheet 27NW
- 1984 BGS (British Geological Survey) 1:50,000 geological map 184: Warwick

Appendix 9.2

Archaeology Gazetteer (Previous studies and recorded sites)

Number in text	Description	Period	Status	NGR (all SP)	SMR ref. NMR ref.	Source
A1	Desk-based Assessment of route options for Tollbar Junction Improvement	-	-	3500 7560	-	JSAC 2001
A1.1	Walls observed in field	Undated	-	3504 7548	-	JSAC 2001
A1.2	Area of slight earthworks	Undated	-	3415 7590	-	JSAC 2001
A1.3	Area of slight earthworks	Undated	-	3630 7570	-	JSAC 2001
A2	Stage 3 desk-based Assessment	-	-	3500 7560	CHER COVE114	ULAS 2003
A2.1	Mesolithic flint core recovered during site walkover	Mesolithic	-	3665 7530	-	ULAS 2003
A3	Programme of archaeological recording during geotechnical works	-	-	3500 7560	-	CA 2006
A4	Non-systematic Walkover survey of Scheme	-	-	3500 7560	-	Present document
A5	Excavation prior to the construction of the Kenilworth Bypass, which uncovered Neolithic storage pits, a ring ditch and evidence of a post-medieval barn	Neolithic, Post-medieval, undated	-	3411 7548	MWA2672, MWA5295, MWA6079 630766 335743	Hobley 1971
A6	Excavation of Neolithic settlement features	Neolithic	-	3384 7545	MWA2690 630760 335751	Ford 1971
A7	Field-walking and excavation of Roman settlement	Roman	-	3715 7615	MWA8278 654161	Rylatt 1987

Number in text	Description	Period	Status	NGR (all SP)	SMR ref. NMR ref.	Source
A8	Watching brief during the excavation of a pipe trench	-	-	3665 7537	COVE260	BUFAU 2002
A9	Palaeolithic handaxe	Palaeolithic	-	3350 7490	MWA3408 1053594	WHER
A10	Palaeolithic artefacts, including a number of stone and flint axes	Palaeolithic	-	3385 7510	MWA2670 335735	WHER
A11	Findspots of a 1st-century brooch and a lead weight or bead	Roman	-	3700 7600	MWA6969	WHER
A12	Findspots of eight Roman coins and a metal fitting	Roman	-	3675 7580	MWA5860	WHER
A13	Roman finds, probably from a destroyed burial site, including two cinerary urns, a bronze jug and a fragment of a samian ware jug	Roman	-	3380 7522	MWA2671 335738	WHER
A14	Baginton Mill, Site of Saxon mill	Saxon/Medieval	-	3390 7534	MWA2685/CHER 15520	WHER/ CHER
A15	Site of Finford Mill	Medieval	-	3680 7570	CHER9375	CHER
A16	Site of Stivichall Mill	Medieval	-	3440 7610	CHER3193/15521	CHER
A17	Find-spot of four lead objects	Medieval	-	3700 7600	MWA6970	WHER
A18	Find-spot of a bronze lug, three bronze cauldron feet, a buckle and a fragment of decorative binding	Medieval	-	3675 7580	MWA5861	WHER
A19	Possible former ridge and furrow Earthworks	Medieval	-	3440 7540	-	JSAC 2001
A20	Site of pound	Post-medieval	-	3636 7585	CHER6124	CHER
A21	Site of brickworks	Post-medieval	-	3629 7567	6125	CHER

Number in text	Description	Period	Status	NGR (all SP)	SMR ref. NMR ref.	Source
A22	Find-spot of a lead disc, a coin, two fittings and a lead bird-shaped sheet	Post-medieval	-	3700 7600	MWA6971	WHER
A23	Find-spots of a bronze weight, ring, fragment of shoe buckle and lead cup	Post-medieval	-	3675 7580	MWA5862	WHER
A24	City of Coventry boundary post	Modern	-	3643 7579	CHER6606	CHER
A25	Baginton Airfield	Modern	-	3550 7450	MWA 8027	WHER
A26	Former enclosure boundaries visible as earthworks	Undated	-	3519 7573	CHER9424	CHER
A27	The Lunt Roman Fort	Roman	SAM	3441 7518	MWA5298, MWA5299, MWA5297	EH
A28	Village of Baginton	Saxon/Medieval	-	3450 7500	MWA9492	VCH 1951
A29	Anglo-Saxon cemetery at Baginton	Saxon	-	3478 7485	MWA2679	NMR
A30	Motte and Bailey castle and deserted medieval settlement at Baginton	Medieval	SAM	3419 7468	MWA5301	Hobley 1971-3, 1975
A31	King's Hill deserted medieval settlement	Medieval	SAM	3279 7458	MWA2918, MWA5292, 1095989	EH, WHER, NMR
A32	Undated linear seen on aerial photograph, suspected to be a modern path	Undated	-	3476 7535	MWA10235	WHER
A33	Evidence of strip-field headland uncovered during excavation	Medieval	-	3290 7440	335887 630778	NMR
A34	Findspot of a Bronze Age pygmy vessel, uncovered during the digging of a deep drain	Bronze Age	-	3290 7467	MWA2883 335818	WHER, NMR

Number in text	Description	Period	Status	NGR (all SP)	SMR ref. NMR ref.	Source
A35	Material recorded following the ploughing of a field, comprising a struck flint, sherd of Roman pottery, medieval pottery and post-medieval pottery	Prehistoric, Romano-British, Medieval and post-medieval	-	3275 7435	MWA2918	WHER
A36	Findspot of Neolithic to Bronze Age flint	Neolithic or Bronze Age	-	3530 2751	MWA2693	WHER
A37	Findspot of Neolithic or Middle Bronze Age flints	Neolithic or Bronze Age	-	3400 7500	335750	NMR
A38	Possible location of deserted medieval settlement at Finham, now doubtful	Medieval	-	3323 7429	MWA8406, MWA7973, 1181172	WHER, NMR
A39	Area of former ridge and furrow	Medieval	-	3597 7566	MWA12068	WHER
A40	Area of former ridge and furrow	Medieval	-	3656 7590	MWA12050	WHER
A41	Area of former ridge and furrow	Medieval	-	3715 7592	MWA12051	WHER
A42	Area of former ridge and furrow	Medieval	-	3730 7600	-	WHER
A43	Ice house, probably associated with Baginton Hall	Modern	-	3442 7527	MWA2954	WHER
A44	Site of barrage balloon	Modern	-	3705 7585	MWA12076	WHER
A45	Modern finds recovered during a watching brief at King's Hill	Modern	-	3285 7460	MWA7397	WHER
A46	Undated ditches	Undated	-	3745 7620	MWA12053	WHER

Appendix 9.3

Built Heritage Gazetteer

Figure 9.6 No.	Name	Description	Group	Grade	NGR (all SP)	EH ref.
B1	St John the Baptist Church, Church Road	13th-century sandston ashlar and rubble church	Baginton	I	3435 3476	307888
B2	1 Lunt Cottages, Coventry Road	c. 1600 timber-framed house	Baginton	II	3448 7512	307894
B3	2 Lunt Cottages, Coventry Road	Late 15th or early 16th-century timber-framed house	Baginton	II	3449 7513	307895
B4	Outbuilding 9 yards southwest of Rose Cottage, Coventry Road	17th-century timber-framed outbuilding	Baginton	II	3429 7509	307893
B5	Link Cottage, Church Road	Late 16th or early 17th-century house with 18th-century painted brick casing	Baginton	II	3443 7476	307889
B6	Lucy Price Cottage, Church Road	Late 16th or early 17th-century timber framed house	Baginton	II	3445 7477	307890
B7	Oak Farmhouse, 2 Church Road	18th-century brick house divided into two dwellings	Baginton	II	3445 7474	307891
B8	Baginton Bridge, Mill Hill	18th-century sandstone ashlar bridge	Baginton	II	3382 7531	307896
B9	Hill Farmhouse, King's Hill Lane	16th or 17th-century timber-framed house with a later wing	-	II	3284 7461	308182
B10	Ryton Bridge, Coventry Road	18th-century sandstone ashlar bridge, widened in the 20th century	-	II	3684 7534	308792
B11	City of Coventry boundary post (northern), Tollbar End roundabout	Painted metal boundary post dated 1932	Willenhall	Locally Listed	3643 7579	-
B12	City of Coventry boundary post (southern), Tollbar End roundabout	Painted metal boundary post dated 1932	Willenhall	-	3637 7569	-
B13	550-552 London Road	Two semi-detached brick built cottages, modern	Willenhall	Code Green	3640 7581	-
B14	665 London Road	Linear building in use as a car dealership, modern	Willenhall	Code Green	3634 7592	-
Figure 9.6 No.	Name	Description	Group	Grade	NGR (all SP)	EH ref.
B1	1 Lunt Cottages, Coventry Road	c. 1600 timber-framed house	Baginton	II	3448 7512	307894
B2	2 Lunt Cottages, Coventry Road	Late 15th or early 16th-century timber framed house	Baginton	II	3449 7513	307895

Figure 9.6 No.	Name	Description	Group	Grade	NGR (all SP)	EH ref.
B1	St John the Baptist Church, Church Road	13th-century sandston ashlar and rubble church	Baginton	I	3435 3476	307888
	Road	century timber-framed house			7513	
B3	Outbuilding 9 yards southwest of Rose Cottage, Coventry Road	17th-century timber-framed outbuilding	Baginton	II	3429 7509	307893
B4	Baginton Bridge, Mill Hill	18th-century sandstone ashlar bridge	Baginton	II	3382 7531	307896
B5	Hill Farmhouse, King's Hill Lane	16th or 17th-century timber-framed house with a later wing	-	II	3284 7461	308182
B6	Ryton Bridge, Coventry Road	18th-century sandstone ashlar bridge, widened in the 20th century	-	II	3684 7534	308792
B7	City of Coventry boundary post (northern), Tollbar End roundabout	Painted metal boundary post dated 1932	Willenhall	Locally Listed	3643 7579	-
B8	City of Coventry boundary post (southern), Tollbar End roundabout	Painted metal boundary post dated 1932	Willenhall	-	3637 7569	-
B9	550-552 London Road	Two semi-detached brick built cottages, modern	Willenhall	Code Green	3640 7581	-
B10	665 London Road	Linear building in use as a car dealership, modern	Willenhall	Code Green	3634 7592	-

Appendix 9.4

Historic Landscape Character Types

This appendix gives the Historic Landscape Types used for the Assessment. These are a simplified version of those which area used by Warwickshire County Council for their current characterisation programme. Those types shaded grey in the table below were identified in the Study Area during this Assessment.

Type	Notes
Straight bounded enclosures	Areas where the field boundaries are predominantly straight, retaining few features of a pre-enclosure landscape. Boundaries may be curved along roads or for topographical reasons
Enclosures retaining earlier landscape features	Areas where pre-enclosure features appear to have influenced the siting of field boundaries. Include reverse-S shaped and dog-legged boundaries
Pre-18th century field systems	Areas where open field systems are visible
Squatter and encroachment enclosure	Small enclosures associated with quarries and industry. Includes paddocks and closes close to settlement
Large field formed through extensive boundary removal	Very large fields recently formed through the amalgamation of many fields to enable cultivation of a large area
Fields formed through boundary removal as a result of post-1880s development	Fields formed though the encroachment of post-1880s developments (roads, housing, industry) into their former area, often resulting in the consolidation of remaining fields.
Floodplain and meadow	Fields often corresponding to areas of alluvium on valley floors which area likely to be used as meadow
Water Meadow	Areas which have extant earthworks enabling the growing season of grass to be extended through flooding
Drained wetlands	Former wetland area drained by artificial means
Commons, heathland and unimproved land	Areas of land that have remained largely unimproved

Type	Notes
Small woodland assarts	Small areas of agricultural cultivation / settlement, suggesting woodland was gradually cleared in a piecemeal manner
Large and planned woodland clearance and assarts	Large areas of cultivation / settlement suggesting that a large area of woodland was cleared at a time
Ancient Woodland	Woodland designated by English Nature as 'Ancient Semi-Natural' (land that has had continuous woodland cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally)
Broad-leaved woods and mixed woods	Broadleaf woodland and mixed woodland, not designated as Ancient Woodland
Coniferous woods and plantations	Commonly post-1880s plantation woodland
Artificial water body	Pond, lake or reservoir (when not part of a designed landscape)
Natural open water	Bodies of open water with natural origins
Marsh	Areas marked as marsh on the Ordnance Survey mapping
Pre-1880s industrial, commercial, civic and municipal	Areas of industrial works, commerce, schools, hospitals, utility works etc. depicted on the First Edition Ordnance Survey maps generally dating to the 1880s
Post-1880s industrial, commercial, civic and municipal	Areas of industrial works, commerce, schools, hospitals, utility works etc. not depicted on the First Edition Ordnance Survey maps generally dating to the 1880s
Derelict land	Land where a former land use is apparent which is not currently in use
Waste tip	Area of landfill or of extractive waste
Extractive	Area of mineral extraction
Military	Area of military depot, airfield or barracks.

Type	Notes
Designed landscape	Parks, including deer parks, and large gardens
Post-1880s leisure	Country parks, golf courses, nature reserves on non-historic origin
Pre-1880s settlement	Settlement recorded on the First Edition Ordnance Survey maps, generally dating to the 1880s
Post-1880s settlement	Settlement not recorded on the First Edition Ordnance Survey maps, generally dating to the 1880s
Post-1880s communication	Major 20th-century communication / transport area including major roads and junctions, airports, motels etc.
Railway/canal	Railways, Canals and associated features such as sidings, basins, locks
Allotments	Extensive areas of allotments

Appendix 9.5

Historic Landscape Character Units within the Study Area and Their Value

Number	Type	Description	Value
C1	Post-1880s communication	A45, A46, A444, associated roundabouts, junctions, cuttings, embankments and verges. Adjacent hotels also included. Constructed in the mid 20th century in an area formerly mainly under agricultural cultivation. Very little time depth is visible.	Negligible
C2	Post-1880s communication	Coventry Airport which was formerly Baginton Airfield. Currently used as a commercial airport, it was constructed in the before 1939 as a municipal airfield, in conjunction with a manufacturing works located to the east. It was used as an RAF airfield during the Second World War. Layout and buildings show time relating to its 20th-century phases. Key features comprise runways, surrounding grassland and airport buildings.	Low
C3	Post-1880s industrial, commercial, civic and municipal	Area of post-1880s development at Whitley including sports centre, schools and industrial works. Contains a small area of ancient woodland at the eastern side. Very little visible time depth, except for the ancient woodland.	Negligible
C4	Post-1880s industrial, commercial, civic and municipal	Key features comprise school buildings and adjacent facilities including car parks and playing fields. Little time depth is visible but the edges of the HLCU conform to previous field boundaries.	Negligible
C5	Post-1880s industrial, commercial, civic and municipal	Stonebridge Trading Estate, comprising large commercial buildings and car parks. Little time depth is visible but some of the boundaries of the HLCU, including Rowley Road at the south, the straight western edge, and a boundary within it reflect the lines of former field boundaries.	Negligible
C6	Post-1880s industrial, commercial, civic and municipal	Sewage works at Finham Bridge, comprising treatment ponds and associated buildings. Little time depth is visible within the HLCU, but some of the HLCU boundaries reflect the lines of former field boundaries.	Negligible
C7	Post-1880s industrial, commercial, civic and municipal	Middlemarch Business Park, businesses adjacent to Tollbar End, sewage works and vehicle testing track. Large commercial buildings, sewage treatment ponds and the vehicle testing track. Very little time depth is visible, except the preserved lines of a couple of former field boundaries and a now isolated farm (Rock Farm).	Negligible
C8	Post-1880s industrial, commercial, civic and municipal	Industrial area to the east of Ryton, including car works and sewage works. Elements comprise very large buildings, carparks and treatment ponds. Very little time depth is visible, except along boundaries defined by pre-existing roads.	Negligible

C9	Straight bounded enclosures	Straight bounded enclosure with several boundaries now removed but many still remaining. This HLCU is historically within Ryton on Dunsmore, the Enclosure Act for which dates to 1761. Modern sewage works located within this area. Shows time depth of enclosure and modern infrastructure relating to the proximity of Coventry. Key features comprise arable fields and hedgerows.	Low
C10	Post-1880s Leisure	Golf course with clubhouse, greens and fairways. The site is within the historic parish of Baginton and part of the western HLCU boundary marks the Baginton/ Stoneleigh Parish boundary. The Enclosure Act for Stoneleigh Parish dates to 1813. Shows very little historic time depth except some of the unit boundaries follow former lines of field boundaries.	Negligible
C11	Post-1880s Leisure	Brandon nature reserve and golf course. The nature reserve comprises an area of former modern gravel extraction, evidence of which is still readily visible. The lines of a few former field boundaries are visible within the HLCU, although most have been removed. Part of the southern boundary of the HLCU is along the line of the River Avon, marking the Willenhall (Coventry Holy Trinity)/ Ryton on Dunsmore Parish boundary. This HLCU is within Willenhall (Coventry Holy Trinity). An Enclosure Act for Coventry Holy Trinity is recorded for 1859.	Negligible
C12	Post-1880s settlement	Housing around Tollbar End roundabout. Mainly suburban semi-detached properties but some older properties adjacent to London Road and the A45, showing 20th-century time depth.	Negligible
C13	Post-1880s settlement	Finham. Mostly planned suburban semi-detached houses. Very little time depth visible, except at along main roads within the area which kept their pre-suburb construction alignment.	Negligible
C14	Post-1880s settlement	Baginton. Suburban-style semi detached and terraced additions to the village, the main historic core of which lies to the south. Includes a former mill complex, now a hotel.	Negligible
C15	Post-1880s settlement	Manor Farm, Ryton. A small area of post-1880s development, including sizeable houses set back from the main road set in large plots of land. Very little historic time depth is visible.	Negligible
C16	Fields formed through boundary removal as a result of post-1880s development	Fields which have been encroached upon by the construction of the A46, A46, A444, Stivichall Junction and post-1880s housing and industry, and in many cases consolidated. A small area of meadow lies around the River Sowe. This HLCU is historically situated at the junction of the parishes of Stivichall, Coventry St Michael and Baginton.	Negligible

		<p>The River Sherbourne marks the historic Stivichall/ Coventry St Michael Parish boundary and the River Avon marks the historic Stivichall/ Baginton and Coventry St Michall/ Baginton parish boundaries. Straight field boundaries surviving in the northern part of the HLCU may be associated with 19th-century enclosure, the 1857 Enclosure Act for Coventry (including Coventry St Michael).</p> <p>Key features are consolidated fields. Some time depth is visible as field boundaries but the legibility of the overall former field system has been greatly diminished by the modern encroachments.</p>	
C17	Fields formed through boundary removal as a result of post-1880s development	<p>Fields which have been encroached upon by the construction of the A46, A46, A425, Tollbar End roundabout and post-1880s housing and industry, and in many cases consolidated.</p> <p>Key features are consolidated fields indicative of post-1880s development, Some time depth is visible as field boundaries but the legibility of the overall former field system has been greatly diminished by the modern encroachments. This area was enclosed in 1859.</p>	Negligible
C18	Fields formed through boundary removal as a result of post-1880s development	<p>An area of former parkland associated with Baginton Hall which has been encroached upon by the construction of the A46, post-1880s housing. This area has also been impacted upon by mineral extraction works and shows little visible time depth with the exception of the possible survival of a few mature trees.</p>	Negligible
C19	Fields formed through boundary removal as a result of post-1880s development	<p>Fields formed by boundary loss due to the construction of area 7: business park, sewage works and vehicle testing track. Key features are irregularly shaped fields. Some time depth is visible as field boundaries but the legibility of the overall former field system has been greatly diminished by the modern encroachments.</p>	Negligible
C20	Large field formed through extensive boundary removal	<p>Large arable field to the southeast of Tollbar End roundabout. Boundary removal within the HLCU has created a very large field of irregular shape. The HLCU was historically within Ryton on Dunsmore Parish, the Enclosure Act for which dates to 1761. Very little time depth is visible, except in the boundaries at the edges of the HLCU.</p>	Negligible
C21	Large field formed through extensive boundary removal	<p>Very large arable fields to the southwest of Ryton. The HLCU was historically within Ryton on Dunsmore Parish, the Enclosure Act for which dates to 1761. Very little time depth is visible within the HLCU, but some of its edges are marked by surviving boundaries of the former enclosed smaller field system.</p>	Negligible

C22	Large field formed through extensive boundary removal	Large field to the north of Ryton. The HLCU was historically within Ryton on Dunsmore Parish, the Enclosure Act for which dates to 1761. Boundary removal within the HLCU has occurred due to mineral extraction, but the edges of the HLCU retain the lines of the former field system. Little visible time depth.	Negligible
C23	Floodplain and meadow	Floodplain and meadow within the parishes of Stoneleigh, Baginton, Ryton on Dunsmore and Willenhall (Coventry Holy Trinity) along the valley of the River Avon. The River Avon marks the historic boundary of these parishes three of which were subject to Enclosure Acts: Ryton on Dunsmore, 1761; Willenhall (Coventry Holy Trinity), 1859, and Stoneleigh, 1813). Key features are enclosed meadow. The HLCU retains field boundaries especially at edges of the floodplain. Some consolidation of fields has taken place within the floodplain. Show time depth in survival of field system, probably due to unsuitability for development.	Low
C24	Enclosures retaining earlier landscape features	Area of fields to the south of Baginton which retain dog-legs and occasional curved boundaries suggesting pre-enclosure features. Time depth visible in these field boundary patterns. The historic Baginton/Stoneleigh Parish boundary crosses north-west/south-east through the HLCU. Stoneleigh was subject to Enclosure Act in 1813. No Enclosure Act is recorded for the parish (Baginton). Key features comprise arable fields and hedgerows with occasional scattered dwellings.	Low
C25	Straight-bounded enclosures	Area of pasture fields with predominantly straight boundaries around Coney-Grey Farm. Legible as an area of formal enclosure, although little other time depth is visible in the HLCU. This HLCU is within Ryton on Dunsmore Parish, the Enclosure Act for which dates to 1761.	Low
C26	Straight-bounded enclosures	Area of fields at Lower Farm and Brandon Grounds Farm with predominantly straight boundaries, indicative of formal enclosure, except boundaries adjoining the road to the north and the edge of the floodplain to the south which are curved. Legible as an area of formal enclosure, although little other time depth is visible in the HLCU. The key features are straight-bounded enclosures	Low
C27	Enclosures retaining earlier landscape features	Small area of enclosures north of the village of Ryton key features of which are reverse-S shape boundaries which may reflect the lines of strip fields of a pre-enclosure landscape. This HLCU is within Ryton on Dunsmore Parish, the Enclosure Act for which dates to 1761. Key features comprise pasture fields and mature hedgerows. Time depth visible in field boundary patterns.	Low

C28	Ancient woodland	Willenhall Wood. Time depth visible in maturity of trees, but the shape of the HLCU reflects encroachment from modern housing developments.	Medium
C29	Straight-bounded enclosures	Area where the boundaries are predominantly straight close to Manor Fields Farm. Main elements are arable fields and hedgerows. Legible as an area of formal enclosure, although little other time depth is visible in the HLCU.	Low
C30	Pre-1880s settlement	Baginton areas of pre-1800 settlement, including site of castle. The historic settlement has been expanded in the 20th century with new developments included in a separate HLCU, but this HLCU retains its legibility as the historic core of a rural community, key features of which comprise the church, farms and houses. Shows visible time depth in buildings and remains of castle.	Medium
C31	Ancient Woodland	Wainbody Wood. Time depth is visible in maturity of trees, but the shape of the HLCU reflects reduction of the woodland by the construction of the railway to the north-west.	Medium
C32	Fields formed through boundary removal as a result of post-1880s development	Fields which have been encroached into by the construction of the A46 and in some cases consolidated. Some time depth is visible as surviving field boundaries, and some of the surviving boundaries are irregular or curved suggesting pre-enclosure features, but the legibility of the overall former field system has been greatly diminished by the modern encroachments. Key features are large fields formed by post-1880s development. This HLCU is within Stoneleigh Parish which was subject to a Enclosure Act in 1813.	Negligible
C33	Large field formed through extensive boundary removal	Large arable fields in the vicinity of New Era Farm. Some time depth is visible as lone mature trees within the fields and trees flanking the main approach to the farm suggesting the former use of this area as parkland. However, the character of this area is of a modern agricultural regime.	Negligible
C34	Post-1880s industrial, commercial, civic and municipal	Area comprising two schools, a cricket pitch and a commercial nursery. This area lies on the very edge of the city, between the suburbs and the agricultural land to the south. Key features are large school buildings, associated playing fields and other sports facilities, and the nursery buildings. Some older field and road boundaries are reflected at the edge of the HLCU, but little time depth is visible.	Negligible
C35	Enclosures retaining earlier landscape features	Area of enclosures retaining reverse-S shaped boundaries and dog-legs in boundaries which may reflect the lines of strip fields of a pre-enclosure landscape. Main elements comprise arable fields and mature hedgerows. Time depth	Low

		comprise arable fields and mature hedgerows. Time depth visible in field boundary patterns.	
C36	Straight-bounded enclosures	Area in the vicinity of the Leasowes, with predominantly straight boundaries indicative of enclosure. This HLCU is within Stoneleigh Parish, the Enclosure Act for which dates to 1813. Key features are arable fields and hedgerows. Legible as an area of formal enclosure, although little other time depth is visible in the HLCU.	Low