

A421 Improvements: M1 Junction 13 to Bedford

Historic Landscape Baseline Report

Report No: D109831-P1A-LAN-R001

April 2007

FINAL

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FINAL

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Executive Summary

This report presents baseline conditions for historic landscape character within the study corridor of the proposed A421 improvements. This information updates and includes information gathered previously and presented in the Stage 2 report prepared by Hyder (2004).

The information presented here can be found summarised in the Historic Landscape baseline conditions section of the Cultural Heritage Chapter 7 in the Environmental Statement, which includes the full impact assessment.

The baseline indicates that the Scheme can be split into two broad historic landscape zones, within which specific historic land use types are identified. The predominant historic land use types are modern intensively managed agricultural land, and land which has been heavily impacted on by modern development, such as clay extraction and urban expansion.

The majority of the historic landscape affected by the Scheme is assessed as having a low sensitivity to change. However the analysis has shown that there is also evidence of relict medieval landscapes and surviving enclosures dating to the 18th and 19th centuries. These have a low to moderate sensitivity to change.

1 Introduction

- 1.1.1 As part of the ECI contract awarded to Balfour Beatty, with Scott Wilson as their designer, a Stage 3 Cultural Heritage Environmental Impact Assessment (see ES Chapter 7) has been undertaken to enable the likely scale and nature of potential impacts from the Scheme to be determined and to identify the location, type and importance of the constraints associated with the route. This work then allows the requirements for mitigation to be defined.
- 1.1.2 Previous cultural heritage baseline studies have been completed for the Scheme (Hyder 2004, Mackinder 2004, Howe 2005) that address archaeological remains and historic buildings. An assessment of surviving historic landscape character has not been previously undertaken.
- 1.1.3 Consultation with Bedfordshire County Council's Archaeological Officer has been carried out during preparation of the Environmental Statement. This highlighted that, in order for the Scheme to meet current best practice, a baseline assessment of historic landscape character for the Scheme should be carried out.
- 1.1.4 The DMRB Volume 11 (1994) does not define historic landscape character assessment as a separate resource or sub-topic within cultural heritage, and often consideration of this resource has been partially covered by the cultural heritage and landscape and visual impacts topic. This has often led to an apparent under-emphasis or confusion on the impact of road-schemes on historic landscape character.
- 1.1.5 Research to address this issue and to support a future revision of the cultural heritage guidance in DMRB Volume 11 is currently being undertaken by the Highways Agency in close association with English Heritage, other non-statutory consultees, and local government archaeology officers.
- 1.1.6 The Scheme would affect two distinct historic landscape character zones. These zones have been identified in the Milton Keynes Urban Expansion Historic Environment Assessment (Milton Keynes Council, Buckinghamshire County Council, English Heritage 2004), which covers the western part of the Scheme. Within these broad character zones, individual historic landscape character types are identified and their sensitivity to change described.

2 Methodology and sources for baseline information

2.1 Methodology

- 2.1.1 The historic landscape character of the Scheme has been evaluated in order to define the baseline conditions and the importance or sensitivity of the area that would be affected by the Scheme.
- 2.1.2 A study area (corridor) 2km wide centred on the proposed Scheme centreline was established to ensure that the landscape context for the Scheme was understood and that adequate baseline data for historic landscape was collated and analysed.
- 2.1.3 There are no designated areas of landscape importance such as English Heritage registered or locally registered historic parks and gardens, landscape conservation areas, or historic battlefields within the study area. The historic landscape character types present in the study area have been identified through study of the surviving time-depth and legibility of historic characteristics typical to the region such as surviving field systems, earthworks, historic tracks, roads and boundaries.
- 2.1.4 The Bedfordshire Historic Landscape Character Assessment (Bedfordshire County Council unpublished report) is still in the process of being completed and is not in a useable state at the time of writing. The western part of the Scheme is included within the Milton Keynes Urban Expansion Historic Environment Assessment report (Milton Keynes Council, Buckinghamshire County Council, English Heritage 2004). This report includes baseline historic landscape character descriptions for the parishes of Husbourne Crawley, Ridgmont, Brogborough, Lidlington and Marston Moretaine.
- 2.1.5 The methodology used for the Milton Keynes Urban Expansion Historic Environment Assessment was further developed for the purpose of this study. Relevant data was extracted from the study and the assessment extended eastwards along the Scheme.
- 2.1.6 Specific historic landscape types along the length of the Scheme have been identified by desk-study and walkover surveys of the study area. These have been mapped using MapInfo GIS.
- 2.1.7 An understanding of how historic landscape features and features of the modern landscape combine, allows an evaluation of how sensitive to change each historic landscape character types is. A sensitivity rating (Table 2.1) reflects the differing degree to which historic stratigraphy or time-depth is present and the degree of previous change, and in some cases wholesale modernisation, that has affected the historic integrity of an area.
- 2.1.8 Some historic landscapes may for example contain a large number of related historic elements such as intact early field system boundaries, ridge and furrow and other archaeological earthworks, historic farms and tracks, unimproved road networks and unimproved water courses and exhibit a character closely attributable to past historic periods. In contrast others may exhibit evidence for major modernisation and recent management and contain little reflection or fossilisation of previous historic land uses.
- 2.1.9 The sensitivity of each historic landscape type has been assessed and classified in accordance with Table 2.1.

2.2 Sources

- 2.2.1 The following sources have been consulted as part of this baseline report.

Bedfordshire Historic Environment Record (HER)

- 2.2.2 Parish files including historic mapping were examined in the Bedfordshire HER. The mapping available comprised pre-enclosure maps, enclosure maps, and tithe maps. Not all mapping was available for each parish along the route.

Bedfordshire Archives

2.2.3 Historic Ordnance Survey maps were consulted at Bedfordshire Archives.

Other Sources

- 2.2.4 Aerial photographic evidence was consulted for the purposes of this study. This comprised aerial photography taken specifically for this project (Aerial Photography report, 2005) and that available on the worldwide web (<http://www.multimap.com>).
- 2.2.5 The Buckinghamshire Historic Landscape Characterisation report was also reviewed (Buckinghamshire County Council).
- 2.2.6 Other general information on the route and its surroundings was provided by searches on the worldwide web (<http://www.genuki.org.uk/big/eng/BDF/Parishes>; <http://www.british-history.ac.uk>; <http://freepages.genealogy.rootsweb.com>; <http://www.magic.gov.uk/website/magic>).

Table 2.1 Sensitivity rating for historic landscape

Sensitivity to change Rating	Typical Historic Landscape Character type description	Typical design considerations governing capacity for change
Very High	<ul style="list-style-type: none"> • World Heritage Sites inscribed for their historic landscape qualities • Historic landscapes of national or even international importance, whether designated or not • Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s) 	<ul style="list-style-type: none"> • Relatively complete and predominantly ‘static’ historic landscapes which are only capable, in principle, of absorbing very limited change without loss of character • Particularly sensitive to the cumulative impact of small scale changes. • Presumption against development that would not contribute significantly to the maintenance and active conservation of the character and fabric of the historic landscape. • Would need to provide exceptional heritage improvements/dividends
	Examples: Well preserved historic landscapes demonstrating exceptional coherence and time-depth and/or exceptional rarity and special interest, for example Historic Parks and Gardens listed on EH register in England.	
High	<ul style="list-style-type: none"> • Designated or undesigned historic landscapes of outstanding interest • Undesignated landscapes of high quality and importance, and of demonstrable national importance • Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s) 	<ul style="list-style-type: none"> • Less static areas of landscape which are capable, in principle, of absorbing some well-managed changes • Sensitive to the cumulative impact of small scale changes • Presumption against development that significantly alters the character and fabric of the historic landscape • May need to provide some heritage improvements/dividends
	Examples: Legible ancient enclosure fieldscapes and early enclosure patterns, some of which may retain visible elements from medieval or earlier patterns may include commons, ancient woodland plantations which have remained essentially unchanged since 18th or 19th century. Well preserved parklands or previously unenclosed lands.	
Moderate	<ul style="list-style-type: none"> • Designated special historic landscapes • Undesignated historic landscapes that would justify special historic landscape designation landscapes of regional importance • Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s) 	<ul style="list-style-type: none"> • Dynamic landscape in which a mixture of modern and historic elements pre-supposes a capacity, in principle, to absorb most types/scales of essential, well-managed change • Desirable that development enhances the residual character and fabric of historic landscape where possible
	Examples: Coherent parliamentary or earlier enclosure landscapes with some evidence of previous historic landscape character surviving in places. Local area of special interest such as parklands and unenclosed commons.	

Sensitivity to change Rating	Typical HL units example description (as applied to A421 corridor study)	Typical design considerations governing capacity for change
Low	<ul style="list-style-type: none">Undesignated historic landscapes of local importanceHistoric landscapes with specific and substantial importance to local interest groups, but with limited wider importanceHistoric landscapes whose importance is limited by poor preservation and/or poor survival of contextual associationsHistoric landscapes where further investigation would add no significant additional information	<ul style="list-style-type: none">High potential capacity to absorb essential change based on former trends towards the removal of the historic dimensionConsiderable scope for historic landscape enhancement, especially where it is possible to draw on the qualities of adjacent historic landscape character
	Examples: Largely rationalised parliamentary enclosure period geometric fieldscapes with significant areas of modern fields resulting from 20th century CAP scheme economics. Landscapes altered in the 20th century through engrossment of land holdings, new landscape features such as major modern roads or retail parks and semi-urban development.	
Negligible	<ul style="list-style-type: none">Landscapes with no significant historical character or sensitivity	<ul style="list-style-type: none">Very little scope for historic environment enhancement
	Examples: Almost wholly modern landscapes created through the removal of historic indicators such as extreme boundary loss in modern prairie type fields, or by the wholesale overwriting of previous historic landscape character by mineral extraction, plantations, golf courses, modern airfields or urban expansion.	

3 Baseline Conditions

- 3.1.1 The Scheme can be divided into two distinct historic landscape character zones (Fig. 1) as defined by the Milton Keynes Urban Expansion Historic Environment Assessment. These zones are the ‘Duke of Bedford Estate’, from the M1 Junction 13 to the western boundary of Lidlington parish; and the ‘Bedfordshire Bricklands’, from the western boundary of Lidlington Parish to Bedford. These have been used to place the Scheme corridor into its wider historic landscape setting.
- 3.1.2 The baseline conditions within each zone are described below. This comprises a description of the historic development of the zone from documentary sources and historic mapping, and a summary of place name evidence. This information provides a useful summary of historical processes that have contributed to today’s landscape within the study area.
- 3.1.3 The zones have been sub-divided to show areas of specific historic landscape type. This has been mapped (Fig. 1) in order to identify any remaining areas of landscape with historic value. A system of classification of historic landscape types has been developed for the purpose of this study, as one is not available from Bedfordshire County Council. These classifications took into account those defined in the Milton Keynes Urban Expansion Historic Environment Assessment although some were altered for the purpose of this study. The historic land use types recorded within each zone are described below.

3.2 Zone 1 - The Duke of Bedford Estate

‘The Duke of Bedford Estate is characterised by rectangular fields created in the 19th century by the Dukes of Bedford as part of agricultural improvements. There are also a number of 20th century fields created as a consequence of the construction of the M1 motorway. This zone has a landscape of differing qualities but is also able to absorb modest change. There may be potential for historic landscape restoration’ (Milton Keynes Urban Expansion Historic Environment Assessment).

Physical characteristics

- 3.2.1 The Duke of Bedford Estate occupies an area of higher ground at the western end of the study area, extending from the M1 Junction 13 to the western boundary of Lidlington Parish. The topography in this zone is steep in comparison to the rest of the route. A ridge extends from Cranfield in a southerly direction towards Brogborough and runs eastwards, passing directly through the study area, forming Brogborough Hill. The geology in this zone is characterised by gravel and agricultural soils which are slightly more productive than those to the north and east. The landscape has not been drastically altered by quarrying or clay extraction. The land use in this zone is predominantly pasture. The M1 motorway passes through the western side of the zone.

Historical development

- 3.2.2 This zone comprises land within the historic parishes of Husbourne Crawley and Ridgmont, and the modern parish of Brogborough. The villages of Ridgmont and Husbourne Crawley are situated away from the Scheme. Brogborough was originally within Ridgmont Parish.
- 3.2.3 The name Brogborough derives from brock, meaning ‘badger’, and beorg, meaning ‘hill’, and the name Ridgmont comes from Rougemont meaning ‘red hill’. Husbourne Crawley is the amalgamation of two villages, Husbourne deriving from the name of a stream ‘Hysseburn’, recorded in AD 969 (<http://www.british-history.ac.uk>).
- 3.2.4 The oldest settlement areas evident in this zone comprise two farms: Brogborough Manor Farm, to the north of the Scheme; and the Round House or Brogborough Park Farm, to the south of the Scheme. The Round House was previously known as Rougemont and is the site of a fortified mound dating to the early medieval period (Scheduled Monument number 20436). A road shown on historic mapping, connecting the Round House and Manor Farm, can still be traced as

a footpath. Two farms shown on 19th century Ordnance Survey maps are Highfields Farm and Charity Farm. Highfields Farm is still in existence, whereas a barn is all that remains of Charity Farm. Modern settlement comprises a small estate to the south of the Scheme at Brogborough.

- 3.2.5 A pre-enclosure map is available for Husbourne Crawley Parish, dating to 1760. This shows a landscape of open fields, with furlong boundaries and the direction of ploughing marked. Furlong boundaries visible on this map show very little resemblance to the present system of field boundaries. The A421 is shown and is named 'Acry Way', and Salford Road is shown and named 'Newport Way'.
- 3.2.6 The earliest parish map available for Ridgmont Parish is the Enclosure map dating to 1797. A few boundaries on this map correspond with modern boundaries, however the majority have been changed.

Historic landscape types

- 3.2.7 The predominant historic landscape type in the zone is 19th century enclosures (**HL1**). These are areas of land where the majority of field boundaries date from the 19th century. The main data source for this classification was the 1882 (1st edition) Ordnance Survey map. Land is agricultural pasture and arable and is characterised by straight field boundaries, canalised water courses, and square fields. Fields of this type in this zone are likely to be those created by the Duke of Bedford in the 19th century. These were created after Parliamentary enclosure had taken place as a means of agricultural improvement. The pattern of straight field boundaries overlays the medieval open fields, and some areas of ridge and furrow earthworks are still visible in this zone (BB/SW report D109831-P1A-ACH-R002). This landscape type has low historic landscape sensitivity.
- 3.2.8 An area showing evidence of 18th century or earlier enclosures (**HL2**), has been identified within this zone. The main data sources for this classification were historic maps, and the Milton Keynes Urban Expansion Historic Environment Assessment (Figure 13: Surviving and Relict Medieval Landscape). This is agricultural land, predominantly pasture, where the field boundaries date from the 18th century or earlier. Field boundaries are irregular and are typical of early enclosure. Some enclosures of this date may be the result of piecemeal enclosure while others originate from assarting. Assarting is the process of creating fields by clearing woodland. This results in irregular and curved field boundaries. Some curved field boundaries can still be seen in the modern landscape and are the possible outlines of former woodland. This type of landscape has moderate historic landscape sensitivity.
- 3.2.9 An area of land within the eastern extent of this zone has been heavily impacted by modern development (**HL3**). This area comprises land that has been greatly altered by modern quarrying and disturbance, for example former industrial land and the outer edges of former quarries. Brogborough Picnic site is also included within this area. This comprises a section of land created when the A421 to the east of Brogborough Hill was straightened in the 1960s. Brogborough Park, a medieval deer park, extended into this area. No trace of this remains, apart from the line of its western boundary which is formed by the route of the old A421. This landscape type has negligible historic landscape sensitivity.
- 3.2.10 The M1 motorway and Junction 13 is located in the western part of this zone (**HL4**). This is a six-lane motorway opened in 1959. Junction 13 consists of a roundabout to the west of the motorway and slip roads, giving access to the A421 to Bedford and Milton Keynes, and the A507 to Woburn and Ampthill. The M1 is considered to be historically important as it was the first inter-urban motorway to be completed in Britain. This landscape type has low historic landscape sensitivity.

Zone 2 - The Bedfordshire Bricklands

The Bedfordshire Bricklands is an area characterised by the late 19th and 20th century impact on the landscape, the most influential being the former brick making industry. Much of the post-industrial landscape in this area has been restored or converted for the purposes of recreation, with boating lakes and recreation sites. Some former brick pits have been reused as waste

disposal sites, which now form a dominant feature in the landscape. In addition to the former industry, the area has large arable fields created by modern farming practises. This landscape has a generally low historic value and a high capacity to absorb change' (Milton Keynes Urban Expansion Historic Environment Assessment).

Physical characteristics

- 3.3.1 The topography in the Bedfordshire Bricklands is much flatter than that in Zone 1. The geology is Oxford clay and is not as agriculturally productive as that to the west although a area of more gravelly well drained soil is located around Marston Moretaine (Soil Survey of England and Wales, Bedford and Luton sheet 147).
- 3.3.2 The area has been greatly affected by modern clay extraction and brickmaking. Former brick pits can be seen throughout the length of the study area. Some former brick pits are now flooded and in use as public recreational areas. Others are used as landfill sites.

Historical development

- 3.3.3 Historical parishes within this zone are Lidlington, Marston Moretaine, Wootton and Kempston. Kempston and Wootton may have Saxon origins. Both are mentioned in the Domesday Book and a Saxon cemetery has previously been found at Kempston, to the north of the Scheme. The name Kempston means 'crooked' or 'bend in the river', and Wootton, means 'wood farm'. The study area includes the outskirts of Wootton and Kempston Parishes. Prior to Parliamentary Enclosure, the majority of land in this area was common land. It is thought that common land within Kempston Parish was marginal land or meadow, as numerous field names contain the element 'marsh', for example 'Marsh Field' and 'Marsh Leys'.
- 3.3.4 Small medieval settlements and moated sites existed within the zone at Lower End (now abandoned), Escheat and Vale Farm (on the outskirts of Lidlington Parish). Surrounding these settlements some areas of intact medieval landscape survive, which have been identified on a pre-enclosure map of Lidlington Parish (c. 1775).
- 3.3.5 Other medieval settlements in the study area are Marston Moretaine and Lower Shelton. The foci of these villages are away from the A421. Marston Moretaine was formerly surrounded by the remains of ridge and furrow earthworks, however the village has dramatically increased in size in the last 15 years as modern housing developments have been constructed between the historic centre and the present course of the A421. Some ridge and furrow earthworks still exist in this area though the majority have been destroyed.
- 3.3.6 The earliest evidence of brickmaking in the area dates to the early/mid 19th century and brick pits and kilns are shown on the 1840 Tithe map for Marston Moretaine. A post-war boom in brickmaking led to the re-working of older pits, meaning the landscape today is largely the result of modern, large-scale clay extraction.

Historic landscape types

- 3.3.7 Modern agricultural land (**HL5**) makes up the largest historic landscape type in this zone. This is land where some remnants of earlier field systems are identifiable, but many field boundaries have been removed to create large, intensively managed arable fields. Land north of the Scheme, to the south and west of Marston Moretaine, and to the south of Wootton is mainly of this type. This historic landscape type has low historical landscape sensitivity as it has been greatly altered during the 20th century.
- 3.3.8 A relatively large number of 19th century enclosures (**HL6**) survive within this zone. These are areas of arable or pasture land where the majority of field boundaries present date to the 19th century. The main data source for this classification was the 1882 (1st edition) Ordnance Survey map. The type is characterised by straight field boundaries, canalised water courses, and rectangular fields. Field boundaries are hedges and wire and post fences. The remains of ridge and furrow earthworks survive in this area. This historic landscape type has low historic landscape sensitivity.

- 3.3.9 An area of enclosures dating to the 18th century or earlier (**HL7**) has been identified within this zone. This is an area of land surrounding the deserted medieval village of Lower End, where field boundaries are irregular and typical of early enclosure. No structures remain at Lower End, however the surrounding landscape contains tracks and field boundaries shown on a pre-enclosure map of Lidlington Parish dating to the 18th century. The present field boundaries in this area are hedgerows, some of which are dense and species-rich. In some fields remnants of grubbed out hedgerows can be seen. These are marked by broken lines of trees and ponds. The remains of two moated sites can be seen in the area. East of Lower End are the settlements of Vale Farm and Escheat. To the rear of these buildings the medieval landscape of Lower End continues. Historic footpaths are abundant in this area. This area has moderate historic landscape sensitivity, as it is the last remaining fragment of historic landscape showing evidence of medieval land management in the area.
- 3.3.10 The remainder of land within this zone comprises areas of land that has been heavily impacted by modern development and has been greatly altered by clay extraction (**HL8**). Former quarry pits exist along the length of the Scheme in this zone. The eastern end of this zone is characterized by modern-large scale development. In the last ten years large depots and warehouses have been constructed in an area known as Marsh Leys, modernising the historic landscape character. This historic landscape type has negligible historic landscape sensitivity.

4 References

Documentary Sources

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Buckinghamshire County Council. Buckinghamshire Historic Landscape Characterisation report (http://www.buckscc.gov.uk/archaeology/hlc_and_mksm/index.htm.).

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Soil Survey of England and Wales, Bedford and Luton sheet 147

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http://freepages.genealogy.rootsweb.com/~genmaps/genfile_s/COU_Pages/ENG_pages/bdf.htm

<http://www.genuki.org.uk/big/eng/BDF/Parishes.html>

<http://www.magic.gov.uk/website/magic/>

<http://www.multimap.com>

Cartographic Sources

1760 Husborne Crawley Parish pre-Enclosure Map

1765 Jefferys' Map of Bedfordshire

c.1775 Lidlington Parish draft Enclosure map

1797 Ridgmont Parish Enclosure Map

1804 Kempston Parish Enclosure Map

1838 Wootton Parish Enclosure Map

1840 Marston Moretaine Parish Tithe Map

1848 Kempston Rating Survey

1882 (1st edition) Ordnance Survey map 1:10560

1902 (2nd edition) Ordnance Survey map 1:10560

1927 (3rd edition) Ordnance Survey map 1:10560

Figure



