

A453 Widening M1 Junction 24 to A52 Nottingham

Historic Landscape: Character Assessment

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REVISION AND ISSUE CONTROL SHEET

Rev	Status	Purpose of Issue	Originated	Checked	Authorised WYG	Authorised LoR	Date
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		This supersedes Rev 1 of Report 196 which includes Mill Hill Link Road.					

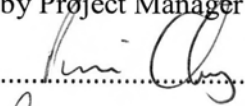
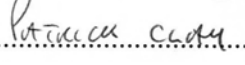

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**A453 Widening: M1 Junction 24 to A52 Nottingham
Historic Landscape Character Assessment
of the Proposed Offline Route**

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2 Methodology

Introduction

2.1 The methodology follows the guidance outlined in the Design Manual for Roads and Bridges (DMRB), specifically Volume 11, Section 3, Part 2, HA208/07. (Highways Agency 2007b). It uses a staged approach to identify the significance of the proposed scheme on cultural heritage using the following stages.

- Assessment of Value (identifies the types of historic landscapes and assigns a value to them)
- Assessment of Magnitude of Impact (identifies the proposed change to the landscape from the proposed scheme after agreed mitigation)
- Evaluation of Significance of Effect (uses the results of the first two stages (Assessment of Value and Assessment of Magnitude of Impact), to produce a score outlining the significance of the proposed scheme on the landscape type).

Assessing Value

2.2 The first stage in HLCA is to identify and describe the character of the area. This assessment uses the HLC data available from Nottinghamshire County Council (polygon data onto a GIS) and further assessment using map regression. Once the historic landscape character has been described, its value can be assessed using a scale of criteria from Negligible to Very High (Table 1 below). Assessment of value considers Time-depth, rarity, special interest (the temporal diversity), the history of change, legibility, local character, cultural association and research potential (Highways Agency 2007, 35-37).

Assessing the Magnitude of impact

2.3 The impact of the proposed project is defined as the scale of change to the historic landscape character unit as a result of changes to the smaller character elements. This is not necessarily a physical loss but more the perception of identity.

2.4 The magnitude of impact is assessed taking into account any agreed mitigation and enhancement but not the value of the resource (e.g. impact on a Low Value site is the same as that on a High Value site). Impacts can be positive (beneficial) or negative (adverse) and can be assessed on a scale from Major Beneficial to Major Adverse (Table 2 below).

Assessing the Significance of Effects

2.5 The significance of the effect is the extent to which the change to the historic landscape matters). It is considered to be the result of the value of the Historic Landscape Character unit combined with the magnitude of the impact, whether positive or negative upon it (Highways Agency 2007b, 7.13.1). Table 3 shows how the information on the Value and the Magnitude of Impact identified in Tables 1 and 2 are combined to arrive at an assessment of the Significance of Effect.

2.6 Assigning significance relies upon reasoned argument, professional judgement and taking on board the advice and views of appropriate organisations and individuals. The matrix set out in Table 3 is used as a check to ensure that these judgements are reasonable and balanced.

2.7 The matrix in Table 3 has been used in reaching an overall conclusion. Where a range is indicated a single description has been determined.

2.8 The assessment of historic landscapes has also taken into account guidance contained within Assessing the Effect of Road Schemes on Historic Landscape Character published by the Highways Agency in March 2007 (Highways Agency 2007a), which uses worksheets to identify the impacts. The worksheets created to assess Historic Landscape Character for this scheme, (based on Appendix 1 Highways Agency 2007a) are in Appendix 2.

Table 1: Value ratings and examples for historic landscapes (adapted from Highways Agency 2007a, Fig. 6.6)

VALUE	Typical Descriptors
Very High	<ul style="list-style-type: none"> • World Heritage Sites inscribed for their historic landscape qualities • Historic landscapes of international sensitivity, whether designated or not • Extremely well preserved historic landscapes with exceptional coherence, time-depth or other critical factor(s)
	Examples: Well preserved historic landscapes demonstrating exceptional coherence and time depth and/or exceptional rarity and special interest.
High	<ul style="list-style-type: none"> • Designated historic landscapes of outstanding interest • Undesignated landscapes of outstanding interest • Undesignated landscapes of high quality and importance, and of demonstrable national sensitivity. • Well preserved historic landscapes with considerable coherence, time-depth or other critical factor(s)
	Examples: Legible ancient enclosure fieldscapes and early enclosure patterns, some of which may retain visible elements from medieval or earlier patterns, may include commons or ancient woodland that have remained essentially unchanged since 18th – 19th century.
Medium	<ul style="list-style-type: none"> • Designated special historic landscapes • Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional sensitivity. • Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s)
	Examples: Coherent parliamentary enclosure landscapes with some evidence of previous historic landscape character surviving in places. Local area of special interest such as parklands and unenclosed commons.
Low	<ul style="list-style-type: none"> • Robust undesignated historic landscapes. • Historic landscapes with specific and substantial importance to local interest groups, but with limited sensitivity • Historic landscapes whose sensitivity is limited by poor preservation and/or poor survival of contextual associations • Robust historic landscapes
	Examples: Largely rationalized parliamentary enclosures period geometric fieldscapes with significant areas of modern fields resulting from 20th century changes. Landscapes altered in the 20th century through engrossment of land holdings, new landscape features such as major modern roads, retail parks and semi-urban development.
Negligible	<ul style="list-style-type: none"> • Landscapes with little or no significant historic interest.
	Examples: Almost wholly modern landscapes, created through the removal of historic indicators such as extreme boundary loss in modern fields or the overwriting of previous HLC by mineral extraction, plantation, golf courses, modern airfields or urban expansion.

Table 2: Magnitude of Impact and typical descriptors (from Highways Agency 2007b, Table 7.3)

Magnitude of Impact	Typical Descriptors
Major	Change to most or all 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	Change 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 change to historic landscape character.
Minor	Change to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; limitable changes to noise levels or sound quality; slight changes to use or access; resulting in limited change to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very 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.

Table 3: Significance of Effects Matrix (from Highways Agency 2007a, Figure 9.1)

ENVIRONMENTAL VALUE	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight
		No change	Negligible	Minor	Moderate	Major
MAGNITUDE OF IMPACT (DEGREE OF CHANGE)						

3 Study Area

3.1 The A453 Widening scheme covers the section of the A453 from M1 Junction 24 to the Farnborough Road / Fabis Drive junction in Clifton. The offline section which is the subject of this assessment starts at the Thrumpton turn and runs to the south of the existing road to a proposed new roundabout at Mill Hill. The scheme joins the existing A453 back on line just north of the Mill Hill roundabout.

3.2 The study area for this assessment runs approximately 1500m either side of the proposed offline section, including the link road to Clifton Lane (Figs 1 & 2).



Figure 1: Location of the offline section of the A453

A453 Widening: M1 Junction 24 to A52 Nottingham

Historic Landscape Character Assessment

of the Proposed Offline Route

1 Introduction

1.1 This document assesses the change that would be made by the proposed offline section of the A453 Widening scheme to historic landscape character. A Cultural Heritage Detailed Assessment of the scheme has already been undertaken, in accordance with the Department for Transport's Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2 Cultural Heritage (HA 208/07) (Highways Agency 2007b), which includes an assessment of the historic landscapes along the entire proposed route (Score 2007).

1.2 The guidance within DMRB on historic landscape impacts is necessarily couched in general terms. This report follows supplementary guidance within the Highways Agency's document 'Assessing the Effect of Road Schemes on Historic landscape Character', (Highways Agency 2007a).

1.3 The new guidance is in compliance with the European Landscape Convention, publications such as the UK Government's 'The Historic Environment: A Force for Our Future' and Planning Policy Guidance on Planning and the Historic Environment (PPG 15 and 16). Emphasis is placed on the value of the wider historic landscape rather than just archaeological remains and historic buildings, and the need for its qualities and people's perceptions of the evidence of past human activities to be taken into account in new transport proposals. Historic landscape assessment is in its infancy and over the coming years experience in implementing advice will no doubt lead to changes in methodology.

1.4 The findings of this historic landscape character assessment (HLCA) will be used in a separate assessment of landscape effects, including landscape character assessment (LCA), which forms part of the environmental assessment of the scheme in accordance with DMRB Volume 11, Section 3, Part 5. There is a close relationship between HLCA and LCA but specific differences also; the HLCA operates at a greater scale and focuses on the historical dimension to gain an understanding of time-depth (concerning the human perspective), whereas the LCA focuses on the visual dimension and discrete character areas which have been shaped by cultural and natural forces.

1.5 This assessment will help ensure that historic landscape character and historic value is a key consideration in the process of environmental assessment and design of the A453 Widening scheme.

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Figure 2: Plan showing the offline section of the proposed new route (outlined in red).

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4 Consultation

4.1 Following a Public Consultation exercise held in June 2007, concern was raised from members of the public, English Heritage and other interested parties at the impact of the offline route on the historic landscape south of Clifton. Consequently consultation was sought with Ann Plackett (English Heritage Regional Planner) and Ursilla Spence (Nottinghamshire County Council Senior Planning Archaeologist). A draft of this report was circulated and a meeting was held (06-11-2007) with both parties at which the details of the proposed route and its impacts and mitigation measures were discussed and agreed. The impacts of the alternative options were also discussed and compared with the Preferred Route.

4.2 Several meetings have also taken place both on and off site with the Landscape Consultant to discuss landscape views and mitigation options. A site meeting was also held with a Landscape Architect from Nottinghamshire County Council.

5 Landscape Areas

5.1 In 1997 Nottinghamshire County Council published the Nottinghamshire Landscape Guidelines (Countryside Appraisal). Regional landscape character areas and smaller landscape character types within them are defined in terms of physical and human influences, visual character, and landscape evolution and change. Landscape strategies and key recommendations identify the main actions and priorities for each landscape type, and mechanism for implementing them are suggested by a series of guidelines indicating how specific aspects of landscape character can be conserved, enhanced or restored. (Nottinghamshire County Council 2002).

5.2 A Landscape Assessment has been undertaken (Buckley 2007), which looks at the Landscape Character in detail. The area through which the offline route would pass lies within the *South Nottinghamshire Farmlands* Regional Landscape Character Area identified by the Nottinghamshire Landscape Guidelines. This is subdivided into two distinct landscape types, *Village Farmlands* and *Alluvial Levels* (Fig.3).

5.3 The offline route would pass through the *Village Farmlands*. These are closely associated with the Triassic rock belt south of the River Trent and dominated by Mercia Mudstone formation. Specifically the geology of the study area is Hollygate Sandstone and Cropwell Bishop formation bedrock (Late Triassic). The overlying superficial deposits include large areas of alluvium around the river, along with Hemington Terrace deposits (Quaternary) and Holme Pierrepont Sands and Gravels (Devensian). To the south on either side of the existing A453 are areas of Thrussington Till and Head deposits.

5.4 The Landscape Assessment (Buckley 2007) identifies this landscape as mainly agricultural with degraded and gappy hedgerows and woodland clumps. The landscape is identified as poor quality making it of Low value.

5.5 Further south-east, beyond Clifton Lane, on the low lying land around Ruddington Moor, are large areas of alluvium within the *Alluvial Levels* landscape character type.

5.6 North of the A453 most of the area lies within the Trent Washlands Regional Landscape Character Area.

6 Historic Landscape Character Areas

Nottinghamshire Historic Landscape Characterisation Project

6.1 Between 1998 and 2000 the Nottinghamshire Historic Landscape Characterisation Project took place which produced a Historic Landscape Character (HLC) map on GIS with associated descriptions (Nottinghamshire County Council, 2000). It should be noted that the project was one of the earlier Historic Landscape Characterisation projects and ideas on landscapes and characterisation have changed somewhat since then. Many of the character types within the study area are wrongly identified and traces of earlier landscape features have been missed.

Description of HLC types

6.2 For most of the offline section, the landscape character to either side of the A453 is defined by the Nottinghamshire HLC as *Modern Modified Field Patterns* (Fig. 3). These represent areas where the early patterns shown on 19th century maps are no longer readable or have been radically changed. This is usually associated with post World War II agricultural policies and technology. However, a close look at the current landscape shows that despite the large scale removal of the field boundaries, enclosure field patterns identified on Sanderson's 1835 map (Appendix 1, A) are still visible in the modern fields.

6.3 Within this landscape type are *Current Woodlands* and an area of *Historical Woodland* at Brands Hill.

6.4 There are some small areas of *Regularly Laid Out Large Geometric Field Patterns* at Barton in Fabis and Clifton. These are commonly associated with the Parliamentary Enclosures of the 18th and 19th centuries. There are also large areas of *Irregular Geometric Field Patterns* to the east (Clifton Pastures and towards Gotham) as well as small areas around Brands Hill, Barton in Fabis and Thrumpton.

6.5 Like the *Regularly Laid Out Large Geometric Field Patterns*, these are often associated with parliamentary enclosures, but in locations where topography makes regular boundaries difficult to lay out.

6.6 There is a small area of *Semi-regular Field Patterns* around Barton Lane crossroads and another small area at Mill Hill Spinney with a larger area to the south-east at Barton Moor. These are geometric field patterns (but less defined than the *Regularly Laid out* or *Irregular Geometric Field Patterns*) with discontinuous or wavy field boundaries. Although these are also associated with enclosure, their origins vary and often pre-date Parliamentary enclosure.

6.7 Patterns *Reflecting Open Fields* exist in small parcels at Thrumpton and Clifton. These are field patterns that have strong linear dominants which probably originated in enclosure of strips or furlongs in open fields.

6.8 Although Barton Moor and Clifton Pastures are identified and described in the Nottinghamshire HLC their classification is considered to be inappropriate for this study and these areas are dealt with separately (Fig. 4).

6.9 The HLC therefore suggests that the landscape in the study area is essentially a modern one with large open fields and few hedges and trees. Although there have been significant changes to the character of the 19th century landscape, particularly in the area that the proposed road would run through, there is however, some evidence for parliamentary enclosure patterns surviving and very occasional areas where the earlier remnants of the enclosure of open fields are still visible in the boundaries and ploughing patterns.

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Figure 3: Nottinghamshire County Council Landscape Character Areas.

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Figure 4: Historic Landscape Characterisation Areas

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7 Local Landscape Character Assessment

7.1 In February 2007 a local Landscape Character Assessment was undertaken by Barton in Fabis Parish Council, highlighting the character and perceived importance of the local landscapes of Barton Moor and Clifton Pastures (2007). These include Bradmore, Ruddington and Gotham Moors referred to in the Nottinghamshire Landscape Guidelines as the *South Nottinghamshire Farmlands Alluvial Levels* (as described in Section 2 above). The document looks at the history of the unenclosed land at Clifton Pasture and Barton Moor and emphasises their relatively uninhabited and inaccessible character compared with the landscape closer to the villages.

7.2 The Assessment highlights the views across the currently open landscape to Clifton Pasture and Barton Moor from the A453 at Mill Hill and the general views from the footpath across Barton Moor and Clifton Pasture. It also identified these areas as a potentially tranquil landscape with a depth of history that is important to local people.

8 Landscape History

8.1 This area around the Trent valley is an area rich in prehistoric activity. Within the study area there are numerous lithic scatters mainly from the Mesolithic, Neolithic and Bronze Age periods (although two possible Palaeolithic flints and a hand axe have also been recorded in the area). There are also remains of prehistoric funerary and ritual monuments in the area including barrow cemeteries at Lockington and at Fareham Brook and a number of ring ditches (Score 2006).

8.2 During the later prehistoric period the area was settled as evidenced by the numerous cropmarks of enclosures and field systems. There is a Roman villa at Glebe Farm associated with several other cropmark enclosures of probable late prehistoric – Roman date and a large early Romano-British enclosure with possible structural evidence on the high ground close to Clifton. North-west of the A453 is a possible Iron Age fortified site with associated agricultural activity. This period probably saw the clearance of any natural woodland and the initial development of the landscape into an agricultural field system for growing crops and animal husbandry.

8.3 There is a hint of Saxon activity in the area with a possible settlement around Ratcliffe on Soar. Three of the nearby villages – Thrumpton, Barton in Fabis and Clifton are all mentioned in Domesday and may well have earlier origins. During the early medieval period, much of the landscape would have been largely agricultural with small nucleated villages, probably using an open field system. This involved a collection of unenclosed fields each subdivided into smaller units, which in turn were divided into strips. A parish would normally have three or four such fields and each farmer would have numerous strips in different fields, in theory to allow everyone a fair distribution of good and poor land. Land unsuitable for ploughing such as marshy areas close to the river was used as pasture.

8.4 Following the reduction of the population by the plagues came a move away from arable and by the 15th – 16th century a more mixed and balanced farming regime was employed. By the 16th century some areas of Nottinghamshire had started to enclose fields and by the 17th century, large swathes of land were enclosed creating patterns of small regular fields. The remaining open areas were enclosed in the 18th – 19th centuries by Parliamentary Enclosure Acts. These were laid out by surveyors

and tend to be larger and more regular. However, there are several areas to the south-east of the study area that remained un-enclosed, including Clifton Pasture and Barton Moor which remain open areas today (Nottinghamshire County Council 2002). The land here is low lying and likely to have been boggy and marshy for portions of the year. Because of its unsuitability for agriculture, the area would have been Common Land used mostly for grazing. By the 18th century the moors were beginning to be drained.

8.5 During World War II Clifton Pasture was used as target practice by the military, and was eventually ploughed along with Barton Moor as part of the 'Dig for Victory' campaign. Post war there were many changes to agricultural techniques and policies with field boundaries being removed to create large open areas for ploughing.

8.6 Although the villages of Barton in Fabis, Thrumpton and Ratcliffe appear greatly unchanged in size and shape, Clifton has extended to the south and east with the growth of Nottingham. The current A453 was built largely on the line of the old Green Street, extending it from Ratcliffe on Soar to the M1 motorway. Another modern addition to the landscape is the Ratcliffe on Soar Power Station built in the 1960s. Traffic along the route of the A453 to the motorway has increased greatly. The following quote is from Wikipedia:

'From the morning peak until around 1100am, the traffic can often back up from the Nottingham University Clifton campus right the way back to the Ratcliffe on Soar power station adding around 10 to 15 minutes to the journey time along this route. The problems are worse in term time where the light controlled pedestrian crossing at the university can stop traffic so often that the long tail backs described are caused.'

9 Changes and the Modern Landscape

9.1 The earliest map evidence for the area comes from George Sanderson's *Map of the country twenty miles around Mansfield*, originally published in 1835 (Appendix 1, A). This shows a road running from Clifton to Ratcliffe on Soar. The existing A453 follows the line of this older road from Clifton to Thrumpton where it straightens leaving the old route of the road (now Barton Lane) to the north-west. To the north-west of this road many of the fields are irregular following the naturally made boundaries of old streams and palaeochannels of the River Trent. South-east of the road fields are more regular echoing Parliamentary enclosure patterns. Ratcliffe, Thrumpton and Barton in Fabis are all very similar to their current size and layout with ferry's marked on the Trent at Barton in Fabis and Clifton.

9.2 There has been little change in the structure and patterning of the landscape since the Sanderson Map. On the 1st edition OS (1880), a number of new buildings have appeared including New Barns at Thrumpton and Glebe Farm in place of the single building marked Quinney Field and Barton Lodge, and tramways at Barton in Fabis and Thrumpton. By 1938 the road from Barton onwards is identified as Green Lane; this term was often used to describe much older trackways and made its way onto maps once the roads became surfaced (Paul Courtney pers comm), perhaps suggesting that the road has older origins. By the 1960s the name has changed to Green Street – perhaps with the upgrading and widening of the road. The road is still identified as Green Street on modern OS maps.

9.3 Today, the fields to either side of the road remain arable fields following the same general alignment of the previous system, although boundaries have been straightened and smaller fields combined to create larger areas for ploughing

(Appendix 1, I). This is particularly true of the area north-east of the A453 and north of Barton Lane where boundaries have been largely removed to create larger fields. Although traces of the boundaries are still visible in the south of the area, mostly as ploughing patterns, the physical evidence for these has mostly now vanished. The Sanderson map also indicates that many of the boundaries in this area were once marked by trees or shrubs along the boundary lines which no longer exist. The character of this particular section of landscape has also been changed slightly with the introduction in the 20th Century of small dense areas of woodland mirroring those areas of woodland to the north-west of the road which do appear on the 1835 map.

9.4 Clifton Pasture and Barton Moor although still open are now drained and used for arable cultivation. The modern aerial plan (Appendix 1, I) shows that the irregular open area of the original land has been divided by the drainage boundaries and a footpath, although from the ground the feeling of openness remains. The once unobtrusive view north-westwards up towards Mill Hill is for long periods of the day dominated by the Traffic on the A453 – the road sits on the skyline and the queues of heavy lorries and cars are clearly visible silhouetted against the sky from this area (Fig 5).

9.5 The modern landscape sits on the very edge of Greater Nottingham and although largely rural in character, there are urban influences from the extension of Clifton into the Green Belt. The sudden change from the urban sprawl of Clifton makes the featureless open landscape that the A453 runs through even more distinctive. The openness of the modern landscape also ensures that Ratcliffe on Soar Power Station is visible from a considerable distance as are the various power lines running across the fields.

9.6 Over the last 200 years, the area south-east of the A453 has seen a gradual change in the landscape from a series of long, narrow fields aligned roughly north-south with their boundaries marked by sporadic trees and shrubs, to a landscape containing larger, regular fields, virtually treeless, apart from the small dense plantation areas. The A453 has also created much more traffic through this area making it almost impossible for non-motorised users to ride, cycle or walk on either side of the road between Thrumpton and Clifton, without trespassing on private property. The nearest rights of way are the Trent Valley Way at the back of the woodland west of Brands Hill and the footpath across Clifton Pasture.

9.7 To the north-west of the road between Thrumpton and Clifton, the land has remained much the same. In the early 19th century the fields were generally larger and much more irregular with wooded areas than those to the east. Although many boundaries have also been removed to make larger fields, the irregular boundaries created by streams and old river channels remain much the same. The woodland areas still exist as do many of the trees and shrubs along the boundaries. Although Clifton has expanded, Barton in Fabis and Thrumpton remain similar sizes and the general character of this area has seen very little change since 1835 with the exception of the expansion of the A453 and the growth in traffic.

9.8 In general the landscape south-east of the road, although it retains some hints of earlier enclosure field patterns, has lost much of its 18th – 19th century enclosure character to modern farming techniques that have removed many boundaries including the trees and occasional hedges. In addition the openness of the landscape means that modern additions to the landscape, such as Ratcliffe on Soar Power Station and its associated steam plumes and pylons are visible from many places in the landscape. Nottinghamshire Landscape Guidelines comment that-

'In many places arable intensification has altered the fabric of the landscape through the removal of the hedges and the creation of large fields to facilitate the use of modern farm machinery. In places this has fragmented the overall unity of the landscape leaving isolated features such as remnant gappy hedgerows and dead or dying trees set within open arable farmland. Such features not only appear out of scale with their surroundings, but often impart an impression of dereliction and decline.'

Figure 5: Views of traffic on the skyline of the A453.

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Figure 6: Photomontages of the proposed new road alignment (extract of Photomontages 2a & 2b from the A453 Widening Environmental Statement).

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10 Alternative Options

10.1 Four options have been considered. These are all assessed in a Technical Appraisal Report (TAR). Options 1 and 2 follow the existing line of the A453 north-east of Barton Lane, widening to the north, with a new underpass diverting Barton Lane south of Keeper's Cottage and cutting through previously undisturbed land. Options 1 and 2 differ in that Option 1 requires more land to accommodate a climbing lane on the approach to Clifton from Barton.

10.2 Option 3 is an offline route south of the existing A453 with the same configuration for the Barton Lane junction as Option 1 and 2. Option 4 is also an offline route south of the A453 but with a new roundabout at Mill Hill. Barton Lane would be severed and reconnected as an NMU and accommodation route via an underbridge.

10.3 Option 4 is the preferred option, as illustrated in Fig. 2, for a number of reasons discussed in the TAR and the A453 Widening Environmental Statement. With regard to impact on the historic landscape, for the reasons discussed below it is considered that Options 3 and 4 are the best options.

Impact of the Options on Cultural Heritage

10.4 Options 1 and 2 would have similar impacts on the cultural heritage. The new Barton Lane junction would cut across previously undisturbed land in an area of archaeological potential. The area lies within a later Iron Age and Roman Landscape close to the Roman Villa at Glebe Farm (a Scheduled Monument SM 35602) and a number of enclosures. To the south the junction mainly crosses land of unknown archaeological potential but with archaeological features identified by geophysical survey close to the A453. To the north the road would cut across the site of prehistoric flint scatter and close to an enclosure cropmark (HER: 00484 & 00432; Site 8). North of Barton Lane the road would affect a cropmark and a prehistoric flint scatter (HER 00445; Site 7), a double linear feature and a circular cropmark and a number of geophysical features (Site 12). The widening to the north of the existing A453 would cut across a prehistoric flint scatter and a number of possible cropmark and geophysical features (Site 11), as well as running close to a possible Iron Age hillfort site. The options would also have an adverse effect on the existing buildings close to the junction.

10.5 In terms of impacts on the historic landscape, a new Barton Lane junction with Options 1, 2 and 3 would sever two large pieces of land either side of the A453 on a very different alignment to the current field alignment (as shown on Sanderson's Map, 1835 and the 1st edition OS 1880). It would visually change the area around Barton Lane, making it less legible as a landscape, and could render Barton Lane and its surrounding landscape more vulnerable to future development, particularly the severed areas between Barton Lane and the new road (although this area is protected by Green Belt designation which should offer protection from such development pressures). The online route in options 1 and 2 would also bring the road closer to an oak tree of significant local value close to the existing road, putting it at risk. To the north-east of Barton Lane the impact would mainly be a visual one. The existing road already has a significant visual effect on the historic landscape, both from Mill Hill where the quantity of traffic and particularly large lorries affects the quality and nature of the views, and from the public footpaths across Clifton Pasture

and Barton Moor where the dominant visual effect is of a stream of traffic against the skyline (Fig. 5). The location of a roundabout on this skyline would increase the visual effects. The landscape to the north-east of the A453 contains some of the most legible field systems in the area with many of the boundaries on the 1835 Sanderson map still visible. Widening the road to the north would not only affect this, but would also make the area more vulnerable to future development, particularly between the A453 and Barton in Fabis (although protected by Green Belt designation as mentioned above).

10.6 Option 3 would have the same impact on the cultural heritage as Options 1 and 2 around Barton Lane junction. The offline route would also affect the cropmark at Site 7, the eastern edge of Site 12 and a previously unidentified enclosure cropmark at Site 28. However, evaluation of the previously undisturbed land between these two features suggests there are little in the way of archaeological features. This option avoids the visual impacts on the landscape of having the road and traffic set against the skyline and the use of mitigation would limit the landscape effects of cutting across new land by utilising similar alignments to existing field systems and using planting to retain field boundaries.

10.7 The assessment of Option 4 on the landscape is discussed in detail below. However, there would be no impact on Site 8 and a lesser impact on the setting of the buildings around Barton Lane with this option. There would still be an impact on the cropmark and flint scatter at Site 7 and the enclosure at Site 28. The effect of the offline section on the historic landscape would be similar to that outlined for Option 3.

11 Assessment of the Preferred Route.

Methodology

11.1 This assessment follows guidelines on the environmental assessment of highway projects outlined in DMRB Volume 11, Section 3, Part 2 HA208/07 Cultural Heritage. A full description of the methodology used is given in Section 2 above.

Value of the Historic Landscapes

11.2 The scheme would have no impact on the historic character of *Regularly Laid Out Large Geometric Field Patterns, Patterns Reflecting Open Fields, Historical Woodland* or *Irregular Geometric field patterns* excluding the Clifton Pasture/Barton Moor Area which is dealt with separately.

Current Woodlands

Description and Value:

11.3 The Current Woodlands include woodland to the north and west of the A453 at Brands Hill and two small areas to the south-east. Parts of the Brands Hill woodland appear on the 1835 map with later extensions in the 20th century (the main bulk in the centre is characterised as *Historic Woodland* and is not affected). Drift Lane Plantation first appears on the 1901 OS plan with the small plantation to the south first appearing in 1916-22. Generally these are small areas of 20th century plantation and extensions to existing woodland. The value of this character type is considered to be *Low*.

Semi-regular fields

Description and Value:

11.4 These exist around Barton Lane crossroads with a further area at Mill Hill Spinney (The larger area at Barton Moor is dealt with separately). *Semi-Regular Fields* reflect the past enclosure of open fields mostly dating to the 16th – early 18th centuries. In general these areas are mainly small, isolated sections of land associated with buildings. The value of this character type is considered to be *Medium*.

Modern, Modified field Patterns

Description and Value:

11.5 These represent areas where the early patterns shown on 19th century maps are no longer readable or have been radically changed. This is usually associated with post World War II agricultural policies and technology. However, further assessment has shown that many of the field patterns shown on the 1835 Sanderson map area are still largely visible and many of the Parliamentary enclosure field patterns are still evident despite the removal of boundaries and trees. Only the area immediately south-east of the existing A453, through which the offline route would pass, has been significantly changed with the removal of all nearly all of the trees and hedges (except along Barton Lane) and many of the original smaller field patterns barely visible in the existing landscape as ploughing patterns and soil marks. This landscape type also contains the current A453. Although much changed and modified this road follows the line of Green Street, an old road linking Clifton, Barton in Fabis, Thrumpton and Ratcliffe on Soar. Parts of the original line still survive as a local road (notably at Thrumpton where the main road was straightened leaving the existing road to the north-west). The earliest map evidence shows it in 1835 and as it is likely to have originated with the villages may well date back to much earlier periods. Although the views from the A453 across the open land to Clifton Pasture and Barton Moor are of importance to the local communities, the historical legibility and value of the *Modern, Modified field Patterns* character type is considered to be *Low*.

Clifton Pasture and Barton Moor

Description and Value:

11.6 Although these areas have been classified as other types within the Nottinghamshire Historic Landscape Characterisation Project, it seems obvious that these preserve a much older landscape tradition of unenclosed land, held for the most part in common by the local community. This landscape has been subject to some change in the 20th century with the use of drainage to cultivate the area, and a footpath across the site. This has changed the character somewhat – from the air the once completely open landscape now divided into sections by straight lines (Appendix 1, A & I). However, from the ground it is still very much an open landscape and the views of it from local villages and the public access onto the open space gives local people a sense of common ownership. Despite the changes the ancient landscape patterns are still visible and its heritage is accessible to the public via the footpath. The value of the character type is considered to be *High*.

Magnitude of Impact, Mitigation and Significance of Effects on Historic Landscape Character

Current Woodlands

Value: *Low*

11.7 The offline section of the proposed widening scheme would cut through the southern part of Drift Lane Plantation. This would sandwich the remaining wooded area between two roads. The reduction in size could lead to a change in land use

and management, changing the character of this area. Temporary effects are likely to include dust during construction for the remaining area of woodland.

Mitigation

11.8 Mitigation measures include retaining the plantation south of the road and providing replacement planting for some of the trees lost). New roadside hedges with trees would link into the plantation, recreating the enclosed pattern of the 1900's.

Residual Impact & Significance of Effect

11.9 After mitigation the impact would be *Minor Adverse* and the Significance of Effect would be *Slight Adverse*.

Semi-regular fields

Value: *Medium*

11.10 There would be significant alteration of the Junction at Barton Lane and the A453. Although the north-western part of this landscape type would remain unaltered (this is currently wooded and grassed areas), the new road would run through the south-east section along with a new local access underpass. This would have a direct effect on the coherence of this section of landscape including the loss of boundaries. There would also be some visual and noise impacts. Temporary effects are likely to include noise and visual impacts during construction.

Mitigation

11.11 The remaining boundaries would be retained as far as possible to keep the existing field pattern. Mitigation measures also include tree and shrub planting around the proposed accommodation / NMU underpass to reduce the impact of the scheme on the landscape and to tie it into the existing woodland around Barton Lodge and Keeper's Cottage. The de-trunking of the existing A453 to a local road would return the north-west section to a more rural environment making it less vulnerable to change in the future.

Residual Impact & Significance of Effect

11.12 After mitigation the impact would be *Minor Adverse* and the Significance of Effect would be *Slight Adverse*.

Modern, Modified field Patterns

Value: *Low*

11.13 The new road would cut through approximately 2.5km of this landscape with a roundabout at the northern end. However, there is already a main road running through the landscape (with severe congestion causing long tailbacks at certain times of the day) and along the ridgeline, which the proposed offline route would avoid by being aligned further down the slope to the east. There would be severance of a large section of land between the current A453 and the new road; however the size of the severed fields means they are likely to remain in agricultural use. Four boundaries would be severed. The most significant change would be at Mill Hill where the new roundabout would be situated. However, the roundabout would be in a cutting to minimise the effects, although the lighting would still be visible. Although the general character of the majority of this landscape would remain the same a localised area including the area around the roundabout would be altered. The nature of the view from the A453 is also likely to be changed. The effect of Option 4 on the landscape is shown by the photo montages in Figure 6.

Mitigation

11.14 The detrunking of the A453, returning it to a local road would enhance the character to the north-west of the new road, making it part of a more rural landscape and less vulnerable to future changes. In addition it would allow greater public access to the landscape and the views across the lowland area to the east which is currently only possible while travelling by vehicle on the A453. Local travel is also likely to be easier and less busy. The views from vehicles on the new road to the south-east are likely to remain similar; however, those from the current A453 would include the new road (Fig. 6). This would be partly screened by landscaping on the western side to blend it in.

11.15 Mitigation planting would include native hedges with trees alongside the road, particularly the northern edge, to visually break up the road and extend the horizon, in keeping with existing hedges on Nottingham Road and parts of the A453 close to Clifton. As one of the key characteristics of Mill Hill is the open view across to Clifton Pasture and Barton Moor, open areas between clumps of roadside planting would allow similar views to be retained whilst recreating the typical characteristics of the landscape. Detailed design could ensure that hedges could be stopped at key landscape points to coincide with old field boundaries and allow open vistas across the landscape.

11.16 Consideration would be given to siting an interpretation board along the local route. This would help members of the public, who would be able to linger on a much safer stretch of road, to enjoy the view and to understand the history of the visible landscape.

11.17 The roundabout would be in a cutting to reduce its visual impact which would be further mitigated by dense planting.; Lighting however would impact on night-time views although this would be minimised with the use of modern lighting techniques to limit light spillage..

11.18 The character of the area to the south-east of the offline section and around the Mill Hill Roundabout would change due to development reducing the expanse of open land. However, as there are few boundaries, the landscape would remain predominantly open in nature. Planting as part of the road scheme would be in keeping with the current landscape - i.e. in small blocks or linear belts, which together with existing roadside hedgerows and the few field boundaries which remain would help to restore some of the early 19th century character to the area.

Residual Impact & Significance of Effect

11.19 After mitigation the impact would be *Moderate Adverse* and the Significance of Effect would be *Slight Adverse*.

Clifton Pastures and Barton Moor

Value: *High*

11.20 There would be no direct physical threat to Clifton Pasture or Barton Moor. The main impact is likely to be the view to Mill Hill from the footpath. There could also be some noise effects. At the moment the (often stationary) traffic on the current A453 is highly visible on the skyline (Fig. 5). The proposed scheme would reduce the amount of traffic on this road drastically. In addition the new road would be set against the backdrop of the landscape and partially landscaped to blend in to the scenery, much more so than the existing road (Fig. 6). The possibility of an interpretation board on the A453 would enable people looking out onto this area to appreciate the history of, and reasons for the landscape. Although the views would be different this would not necessarily affect the character of this landscape.

Residual Impact & Significance of Effect

11.21 After mitigation the impact would be *Minor Adverse* and the Significance of Effect would be *Slight Adverse*.

12 Summary

12.1 In general there is likely to be a *Slight Adverse* impact on the historic character of the landscape through which the offline route would pass. Although the road might make the area more vulnerable to future development, it would have the effect of

reducing the traffic congestion that currently affects the character of the landscape either side of the A453.

12.2 Although there would be a significant amount of landtake, the route runs across a landscape that has been modified since the 2nd World War. The de-trunking of the A453 would return the area to the north-west to a more rural setting and help preserve the character of this area in the future.

12.3 To the south-east, the open feel of the landscape where there are currently open views from Mill Hill and the existing A453 would largely be retained by sympathetic design and planting. The new roundabout would be set in a cutting and planting would be used to blend this and sections of the new road into the existing landscape.

12.4 The use of hedges along the line of the road would add to the existing woodland and hedge patterns. Although the landscape is predominantly open there are sections of woodland and hedges in this area and along the existing A453 to which new planting would be integrated. In addition the planting would emphasise the open views which would be kept and would recreate old field boundaries.

12.5 The return of the current A453 to a local road would allow views down towards the open moorland without having to drive along a busy trunk road. Consideration would be given to siting an interpretation board here, subject to engineering and other safety considerations, to help people understand the history of the landscape before them.

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