

10 Landscape

Executive summary

This chapter presents the landscape and visual impact assessment (LVIA).

The quality of landscape varies throughout the scheme area. Areas of Huntingdon, Godmanchester and parts of the Great Ouse Valley are particularly sensitive. Other areas have been assessed as being less sensitive.

The scheme would not affect any nationally designated landscapes. Parts of the proposed scheme would be located within the locally designated Huntingdon Conservation Area. A number of listed buildings are located close to the scheme area, particularly within Huntingdon and other villages including Godmanchester, Buckden, Hilton, The Offords, Fenstanton and Boxworth. There are a number of mature trees with tree preservation order (TPO) status within the scheme area. The eastern part of the scheme would run through green belt land.

The scheme has been designed to lessen the landscape and visual impacts. Environmental bunds and extensive proposed tree and shrub planting would help screen the highway and traffic flow, and would help to integrate the scheme and the borrow pits into the wider landscape.

The landscape would be affected by disruption from construction and the removal of existing vegetation including mature trees recognised with TPO status. The introduction and expansion of major highway infrastructure would affect the character of the landscape and there would be some localised loss of privately owned green space within Huntingdon. The removal of the existing A14 viaduct in Huntingdon would benefit the townscape and some views, such as from users of public rights of way and people accessing Huntingdon railway station. The proposed borrow pit areas would change land use and landscape character. In terms of significant residual landscape effects, there would be large adverse effects on trees with TPO status. The scheme would cause residual effects of large adverse significance on two locally identified landscape character areas – the North Flowing Ouse Valley Floodplain and Huntingdon: Eastern Part of Mill Common. The scheme would cause moderate adverse residual effects on the Huntingdon: Hinchingsbrooke and Central Part of Views Common landscape character area. There would be residual effects of large beneficial significance on the Huntingdon: Station Environs landscape character area.

There would be views of construction activity, of major highway infrastructure and junctions, associated gantries, noise barriers and environmental bunds, signage and lighting, and extensive borrow pit areas from surrounding housing, businesses, public rights of way and public areas. Removal of existing vegetation would open up

views towards the scheme and increase the prominence of highway infrastructure within the landscape. Reduction in traffic in some areas would benefit the landscape character as well as views from within the area. Proposed planting, environmental bunds and noise barriers, and the removal of the A14 Huntingdon viaduct would cause some residual beneficial visual effects. There would be residual effects of moderate adverse significance on 70 visual receptors, residual effects of large adverse significance on 37 visual receptors and residual effects of very large adverse significance on 1 visual receptor (a section of Footpath Buckden 13/the Ouse Valley Way in the vicinity of the river Great Ouse viaduct). There would be residual effects of moderate beneficial significance on 139 visual receptors and residual effects of large beneficial significance on 99 visual receptors, largely as a result of mitigation planting and noise barriers that would reduce the visual intrusion caused by the existing A14/Cambridge Northern Bypass. There would be residual effects of very large beneficial significance on one visual receptor (Footpath Huntingdon 10 south section where it passes beneath the existing A14 viaduct) as a result of the removal of the existing A14 viaduct.

10.1 Introduction

- 10.1.1 The purpose of the LVIA is to define the existing or 'baseline' landscape character and visual context in the area of the scheme, assess the likely significant impacts on landscape character and visual amenity and to identify mitigation to reduce adverse effects.
- 10.1.2 The scheme is likely to cause significant adverse effects upon views and the landscape as a result of construction and operation. Traffic on the A14, the presence of new bridges, lighting, sign gantries, as well as associated borrow pits, landscaping measures and tree planting would impact on views and the landscape.
- 10.1.3 For simplicity, the term 'landscape' has been used throughout the LVIA to describe areas of landscape and townscape. The assessment methodology for impacts on landscape and townscape does not differ.
- 10.1.4 For the purposes of the LVIA, a clear distinction is drawn between landscape and visual impacts as follows:
- Landscape impacts relate to impacts of the scheme upon the physical characteristics or components of the landscape which form its character (e.g. landform, vegetation and buildings); and
 - Visual impacts relate to the changes to views of the landscape experienced by specific receptors e.g. local residents or users of public rights of way (PRoW).

Legislative and policy background

- 10.1.5 Where policies relate to designated areas, these are illustrated on *Figure 10.1*.

- 10.1.6 The *Draft National Policy Statement for National Networks* (Department for Transport, December 2013) contains requirements for landscape assessment (as described in the section on method of assessment below).
- 10.1.7 The *National Planning Policy Framework* (Department for Communities and Local Government, 2012) provides overarching planning policies for England and sets out how these are expected to be applied.
- 10.1.8 At a county scale, the *Cambridgeshire Green Infrastructure Strategy* (LDA Design, 2011) forms part of the evidence base for local planning policies. The *Cambridgeshire and Peterborough Minerals and Waste Development Plan, Core Strategy Development Plan Document* (Cambridgeshire County Council and Peterborough City Council, 2011) includes development control policies to guide mineral and waste development.
- 10.1.9 The following local planning policy documents are applicable to the area surrounding the scheme within the South Cambridgeshire district and contain relevant landscape policies and supporting guidance:
- *South Cambridgeshire Development Control Policies Development Plan Document (DPD)* (South Cambridgeshire District Council, 2007);
 - *South Cambridgeshire Local Development Framework (LDF) Core Strategy Development Plan Document (DPD)* (South Cambridgeshire District Council, 2007);
 - *South Cambridgeshire Local Plan: Proposed Submission (not yet adopted)* (South Cambridgeshire District Council, 2013);
 - *South Cambridgeshire Landscape in New Development Supplementary Planning Document (SPD)* (South Cambridgeshire District Council, 2010);
 - *District Design Guide: High Quality and Sustainable Development in South Cambridgeshire Supplementary Planning Document (SPD)* (South Cambridgeshire District Council, 2010);
 - *South Cambridgeshire Trees and Development Sites Supplementary Planning Document (SPD)* (South Cambridgeshire District Council, 2009);
 - *Cambridge Green Belt Study (Landscape Design Associates for South Cambridgeshire District Council, 2002)* – evidence base to South Cambridgeshire District Council’s Local Plan; and
 - *Inner Green Belt Boundary Study (Cambridge City Council and South Cambridgeshire District Council December, 2012)* – evidence base to Cambridge City Council’s Local Plan.
- 10.1.10 The following local planning policy documents are applicable to the study area within Huntingdonshire district and contain relevant landscape policies and supporting guidance:
- *Saved Policies: Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002* (Huntingdonshire District Council);

- *Huntingdonshire District Council Local Development Framework Core Strategy* (Huntingdonshire District Council, 2009);
- *The Huntingdon West Area Action Plan* (Huntingdonshire District Council, 2011);
- *Huntingdonshire's Draft Local Plan to 2036 (not yet adopted)* (Huntingdonshire District Council, 2013);
- *Huntingdonshire Landscape and Townscape Assessment Supplementary Planning Document (SPD)* (Huntingdonshire District Council, 2007);
- *Huntingdonshire External Artificial Lighting Supplementary Planning Guidance (SPG)* (Huntingdonshire District Council, 1998);
- *Huntingdonshire Trees and Development Supplementary Planning Guidance (SPG), 1998* (Huntingdonshire District Council, 1998); and
- *Huntingdonshire Design Guide Supplementary Planning Document (SPD)* (Huntingdonshire District Council, 2007).

10.1.11 The scheme does not extend into Cambridge City Council's boundary. In addition, the study area to the north of Cambridge is tightly enclosed by development to the south of the existing A14. As such, it is unlikely that landscape policies in the *Development Plan for Cambridge* (Cambridge City Council) apply to the scheme.

10.1.12 *Table 10.1* identifies key legislative themes relevant to the landscape assessment and outlines which planning documents and planning policies relate to those themes. *Appendix 10.1* provides further details about the landscape planning policies identified and how the scheme relates to these.

Table 10.1: Planning policies relevant to landscape

Legislative theme	Policy document	Policy
Respecting landscape character	<i>The Cambridgeshire and Peterborough Minerals and Waste Development Plan, Core Strategy DPD</i> (Cambridgeshire County Council and Peterborough City Council, 2011) (of relevance to borrow pits)	<i>CS33 Protection of Landscape Character</i>
	<i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007)	<i>Policy DP/3 Development Criteria</i>
		<i>Policy NE/4 Landscape Character Areas</i>
		<i>Policy CH/6 Protected Village Amenity Areas</i>
	<i>Policy CH/7 Important Countryside Frontages</i>	

Legislative theme	Policy document	Policy
	<i>South Cambridgeshire LDF Core Strategy DPD</i> (South Cambridgeshire District Council, 2007)	<i>Objective ST/j</i> which states that new development should protect and enhance the character of the landscape
	<i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013)	<i>Policy NH2 Protecting and Enhancing Landscape Character</i>
		<i>Policy NH/11 Protected Village Amenity Areas</i>
		<i>Policy NH/12 Local Green Space</i>
	<i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i> (Huntingdonshire District Council)	<i>Saved Policy EN16 Frontages Identified for Protection</i>
	<i>Huntingdonshire Local Development Framework Core Strategy</i> (Huntingdonshire District Council, 2009)	<i>Policy CS 1 Sustainable Development in Huntingdonshire</i>
	<i>Huntingdonshire's Landscape and Townscape Assessment SPD</i> (Huntingdonshire District Council, 2007)	Contains additional detail to support Huntingdonshire's current Development Plan (Huntingdon District Council).
	<i>Huntingdonshire's Draft Local Plan to 2036</i> (Huntingdonshire District Council, 2013)	<i>Policy LP1 Strategy and Principles for Development</i>
Promoting good quality design	<i>National Planning Policy Framework</i> (Department for Communities and Local Government, 2012)	<i>Policy 7 Requiring Good Design</i>
	<i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007)	<i>Policy LP13 Quality of Design</i>
	<i>District Design Guide: High Quality and Sustainable Development in South Cambridgeshire SPD</i> (South Cambridgeshire District Council, 2010)	Expands on district-wide policies and policies in individual area action plans for major developments, providing additional details on how they will be implemented. Policies seek to ensure that design is an integral part of the development process.

Legislative theme	Policy document	Policy
	<i>South Cambridgeshire Landscape in new Development SPD</i> (South Cambridgeshire District Council, 2010)	Expands on policies in the <i>South Cambridgeshire Development Plan</i> (South Cambridgeshire District Council) and seeks to: “ensure that a landscape scheme forms an integral part of the planning application, and that landscape features, landscape character and associated biodiversity are adequately addressed throughout the development.”
	<i>The Huntingdon West Area Action Plan</i> (Huntingdonshire District Council, 2011)	<i>Policy HW 5</i> <i>Policy HW 9</i>
	<i>Huntingdonshire Design Guide SPD</i> (Huntingdonshire District Council, 2007)	Sets out design principles and explains the District Council’s key requirements.
Restricting light pollution	<i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007)	<i>Policy DP/3 Development Criteria</i> <i>Policy NE/14 Lighting Proposals</i>
	<i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013)	<i>Policy SC/10 Lighting Proposals</i>
	<i>Huntingdonshire External Artificial Lighting SPG</i> (Huntingdonshire District Council, 1998)	Promotes sensitive design of lighting.
Restricting/ mitigating development within the green belt and other identified open spaces	<i>National Planning Policy Framework</i> (Department for Communities and Local Government, 2012)	<i>Policy 9 Protecting Green Belt land</i>
	<i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007)	<i>Policy GB/2 Mitigating the Impact of Development in the Green Belt</i>
		<i>GB/3 Mitigating the Impact of Development Adjoining the Green Belt</i>
<i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013)	<i>Policy NH/8 Mitigating the Impact of Development In and Adjoining the Green Belt</i>	

Legislative theme	Policy document	Policy
	<i>Cambridge Green Belt Study</i> (Landscape Design Associates for South Cambridgeshire District Council, 2002)	Reviews whether any land could be released from the inner green belt to meet development needs, and describes the factors that contribute towards the setting and character of Cambridge and the qualities to be safeguarded.
	<i>Inner Green Belt Boundary Study</i> (Cambridge City Council and South Cambridgeshire District Council, 2012)	Reviews whether any land could be released from the inner green belt to meet development needs and includes landscape analysis of the green belt.
	<i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i> (Huntingdonshire District Council)	<i>Saved Policy EN14 Open Spaces and Frontages</i>
		<i>Saved Policy EN15 Open Spaces and Gaps for Protection</i>
	<i>The Huntingdon West Area Action Plan</i> (Huntingdonshire District Council, 2011)	<i>Policy HW 7</i>
		<i>Policy HW 8</i>
<i>Huntingdonshire's Draft Local Plan to 2036</i> (Huntingdonshire District Council, 2013)	<i>Policy LP30 Open Space</i>	

Legislative theme	Policy document	Policy
Protection of the countryside and its features	<i>National Planning Policy Framework</i> (Department for Communities and Local Government, 2012)	<i>Policy 11 Conserving and enhancing the natural environment</i>
	<i>South Cambridgeshire Trees and Development Sites SPD</i> (South Cambridgeshire District Council, 2009)	Expands on policies in the <i>South Cambridgeshire Development Plan</i> (South Cambridgeshire District Council) and seeks to, “ensure that trees, which are important for their role as both biodiversity and landscape features, are adequately addressed throughout the development process”.
	<i>South Cambridgeshire Landscape in new Developments SPD</i> (South Cambridgeshire District Council, 2010)	Expands on policies in the <i>South Cambridgeshire Development Plan</i> (South Cambridgeshire District Council) and seeks to, “ensure that a landscape scheme forms an integral part of the planning application, and that landscape features, landscape character and associated biodiversity are adequately addressed throughout the development.”
	<i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i> (Huntingdonshire District Council)	<i>Saved Policy EN17 Development in the Countryside</i>
		<i>Saved Policy EN18 Protection of Countryside Features</i>
	<i>Huntingdonshire’s Draft Local Plan to 2036</i> (Huntingdonshire District Council, 2013)	<i>Policy LP 29 Trees Woodland and Related Features</i>
	<i>Huntingdonshire Trees and Development SPG</i> (Huntingdonshire District Council, 1998)	Seeks to ensure trees are adequately addressed through the development process.

Legislative theme	Policy document	Policy
Protection of heritage landscape features and their settings	<i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007)	<i>Policy CH/1 Historic Landscapes</i>
		<i>Policy CH/4 Development Within the Curtilage or Setting of a listed building</i>
		<i>Policy CH/5 Conservation Areas</i>
	<i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013)	<i>NH/7 Ancient Woodland and Veteran Trees</i>
		<i>Policy NH/14 Heritage Assets</i>
	<i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i> (Huntingdonshire District Council)	<i>Saved Policy EN2 Character and Setting of listed buildings</i>
		<i>Saved Policy EN5 Conservation Areas Character</i>
		<i>Saved Policy EN6 Design Standards in Conservation Areas</i>
		<i>Saved Policy EN9 Open Spaces, Trees and Street Scenes in Conservation Areas</i>
	<i>Huntingdonshire Local Development Framework Core Strategy</i> (Huntingdonshire District Council, 2009)	<i>Saved Policy EN11 Ancient Monuments and Archaeological Sites</i>
<i>Policy CS 1 Sustainable Development in Huntingdonshire</i>		
<i>Huntingdonshire's Draft Local Plan to 2036</i> (Huntingdonshire District Council, 2013)	<i>Policy LP 31 Heritage Assets and their Settings</i>	
Conservation and enhancement of green infrastructure	<i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013)	<i>Policy NH/6 Green Infrastructure</i>
	<i>Huntingdonshire Local Development Framework Core Strategy</i> (Huntingdonshire District Council, 2009)	<i>Policy CS 9 Strategic Green Infrastructure Enhancement</i>
	<i>Huntingdonshire's Draft Local Plan to 2036</i> (Huntingdonshire District Council, 2013)	<i>Policy LP1 Strategy and Principles for Development</i>
<i>Policy LP7 Strategic Green Infrastructure Enhancement</i>		

10.2 Method of assessment

Approach

- 10.2.1 The methodology adopted for this assessment is based on guidance for detailed assessment contained within *Interim Advice Note 135/10 Landscape and Visual Effects Assessment (IAN 135/10)* (Highways Agency, 2010), which applies to the reporting of environmental impact assessments of trunk road and motorway projects in England. *IAN 135/10* replaces guidance outlined in the *Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 5, Landscape Effects* (Highways Agency, 1993). *Table 10.2 – Table 10.7* largely adopt the terminology set out in *IAN 135/10*.
- 10.2.2 Further guidance was also derived from the following publications:
- *Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)* (Landscape Institute and Institute of Environmental Management and Assessment, 2013);
 - *Landscape Character Assessment Guidance for England and Scotland* (Natural England and Scottish Natural Heritage, 2002); and
 - *Photography and photomontage in landscape and visual impact assessment* (Landscape Institute Advice Note 01/11, 2011).
- 10.2.3 These publications form the standard reference for undertaking LVIA and landscape character assessment in the UK. The guidance is not prescriptive. *GLVIA3* promotes tailoring the methodology to suit the particular project circumstances. It also emphasises the importance of professional judgement.
- 10.2.4 The methodology adopted for this assessment is compliant with the guidance set out within the *Draft National Policy Statement for National Networks* (Department for Transport, 2013). This is because this guidance (where relevant to LVIA) and *IAN 135/10* (used for this assessment) are both underpinned by the same guidance set out within *GLVIA3*.
- 10.2.5 *Appendix 10.7* describes the detailed methodology used to determine the zone of theoretical visibility and the methodology used to prepare photomontages.
- 10.2.6 All photographs within *Figure 10.5* were taken with a fixed 50mm lens or equivalent in accordance with *Photography and photomontage in landscape and visual impact assessment*.
- 10.2.7 Landscape and visual assessment fieldwork and data collection was carried out between January and September 2014.

Study area

- 10.2.8 For the purposes of this study, the study area has been defined as the extent to which the scheme would be visible (as described under zone of theoretical visibility below and illustrated on *Figure 10.4*). This approach is in accordance with *IAN 135/10*.

Consultation

- 10.2.9 The scoping report set out the proposed methodology and approach for the LVIA. As well as the formal public consultation which was carried out between April and June 2014, regular Environmental Stakeholder Forums were held between December 2013 and DCO submission (refer to *Chapter 5*). The proposed methodology for the LVIA was not questioned throughout this process by local planning authority officers.
- 10.2.10 Three liaison meetings were held with landscape officers at Huntingdon District Council (HDC) and South Cambridgeshire District Council (SCDC) between March and July 2014, where landscape issues and the scheme development were broadly discussed.
- 10.2.11 Consultation was carried out regarding urban design issues within Huntingdon with the government statutory advisor English Heritage, and statutory consultees from Cambridgeshire County Council and HDC. Following initial consultation changes were made to the design of the proposed road improvements at Mill Common to reduce the scheme footprint.
- 10.2.12 Landscape officers at local planning authorities were consulted on the location of proposed photomontages. Following consultation with the landscape officers, two additional photomontages were incorporated, from the western edge of Brampton towards the A1 Brampton interchange bridge and from north of Offord Darcy towards the East Coast mainline railway bridge.

Assessment criteria

- 10.2.13 The sensitivity of a landscape reflects its vulnerability to change. It also reflects the importance of the landscape in relation to national and local designations, its perceived value to local users and consultees and any intrinsic aesthetic characteristics such as its contribution to local landscape quality or sense of place.
- 10.2.14 In some instances a landscape with important elements may be of lower sensitivity as a result of its potential tolerance to change, for example, a variable landform or high levels of tree cover. Conversely, a landscape with few features of interest may be of a higher sensitivity because it is vulnerable to the introduction of a development, for example, a flat landscape with an open character where screen planting would be inappropriate.
- 10.2.15 The sensitivity of a visual receptor depends on the viewer's familiarity with the scene, the activity or occupation that brings them into contact with the view and the nature of the view, whether full or glimpsed, near or distant. It is also determined by the importance of the receptor, the importance of the view, the perceived quality of the view and its ability to accommodate change.
- 10.2.16 The criteria for landscape and visual sensitivity adopted for the purposes of this LVIA are defined in *Table 10.2*. The assessment of sensitivity in relation to landscape and visual sensitivity in the LVIA is based upon the

professional judgement of suitably qualified and experienced specialists, as listed in *Appendix 6.1*.

Table 10.2: Landscape and visual sensitivity

Sensitivity	Landscape - typical criteria descriptors	Visual – typical criteria descriptors
High	<p>Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> • of high quality with distinctive elements and features making a positive contribution to character and sense of place; • likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale; • areas of special recognised value through use, perception or historic and cultural associations; and • likely to contain features and elements that are rare and could not be replaced. 	<ul style="list-style-type: none"> • Residential properties. • Users of public rights of way or other recreational trails e.g. national trails, footpaths and bridleways. • Users of recreational facilities where the purpose of that recreation is enjoyment of the countryside e.g. country parks, National Trust or other access land.
Moderate	<p>Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> • commonplace elements and features creating generally unremarkable character but with some sense of place; • locally designated, or their value may be expressed through non-statutory local publications; • containing some features of value through use, perception or historic and cultural associations; and • likely to contain some features and elements that could not be replaced. 	<ul style="list-style-type: none"> • Outdoor workers. • Users of scenic roads, railways or waterways or users of designated tourist routes. • Schools and other institutional buildings, and their outdoor areas.

Sensitivity	Landscape - typical criteria descriptors	Visual – typical criteria descriptors
Low	<p>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> • inclusive of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place; • not designated; • containing few, if any, features of value through use, perception or historic and cultural associations; and • likely to contain few, if any, features and elements that could not be replaced. 	<ul style="list-style-type: none"> • Indoor workers. • Users of main roads (e.g. trunk roads) or passengers in public transport on main arterial routes. • Users of recreational facilities where the purpose of that recreation is not related to the view e.g. sports facilities.

10.2.17 The magnitude of landscape and visual impact relates to the degree of change the scheme would cause. Magnitude is determined by the perceived contrast or integration with the existing scenic features and aesthetic character in terms of its form, line, colour, texture and scale. It also considers the geographical extent and duration of the impacts. Criteria relating to the magnitude of landscape and visual impact adopted for the purposes of this LVIA are defined in *Table 10.3* and *Table 10.4*, respectively.

Table 10.3: Magnitude of landscape impact criteria

Magnitude of impact	Typical criteria descriptors
Major	<p>Adverse: Total loss or large scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements.</p> <p>Beneficial: Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features.</p>
Moderate	<p>Adverse: Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements.</p> <p>Beneficial: Partial or noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.</p>
Minor	<p>Adverse: Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.</p> <p>Beneficial: Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.</p>
Negligible	<p>Adverse: Barely noticeable loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.</p> <p>Beneficial: Barely noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.</p>
No change	<p>No noticeable loss, damage or alteration to character or features or elements.</p>

Table 10.4: Magnitude of visual impact criteria

Magnitude of impact (adverse or beneficial)	Typical criteria descriptors
Major	The scheme, or a part of it, would become the dominant feature or focal point of the view.
Moderate	The scheme, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Minor	The scheme, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Only a very small part of the scheme would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view.
No change	No part of the scheme, or work or activity associated with it, is discernible.

10.2.18 The significance of landscape and visual effect is determined by combining the sensitivity of the landscape and visual receptors with the magnitude of landscape and visual impact. *Table 10.5* has been used as a guide to assist the professional judgement of the landscape assessor in deciding the significance of landscape and visual effects. The assessment of significance of effect relies upon common sense, experience and professional judgement, supported by substantiated reasoning. Where there is a choice of category in the matrix, the assessor has given reasoned justification for the decision e.g. where a highly sensitive receptor experiences a moderate magnitude of impact, justification for the assessment of either a moderate or large degree of significance is given.

Table 10.5: Significance of landscape and visual effect categories

Landscape/ visual sensitivity	Magnitude of impact				
	No change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
Moderate	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate

10.2.19 The significance of landscape and visual effect can either be beneficial or adverse. Typical descriptions of these categories are provided in *Table 10.6* and *Table 10.7*.

Table 10.6: Descriptors of significance of landscape effects

Significance category	Typical descriptors of effect
1 Very large beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • greatly enhance the character (including quality and value) of the landscape; • create an iconic high quality feature and/or series of elements; and • enable a sense of place to be created or greatly enhanced.
2 Large beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • enhance the character (including quality and value) of the landscape; • enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; and • enable a sense of place to be enhanced.
3 Moderate beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • improve the character (including quality and value) of the landscape; • enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; and • enable a sense of place to be restored.
4 Slight beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • complement the character (including quality and value) of the landscape; • maintain or enhance characteristic features and elements; and • enable some sense of place to be restored.
5 Neutral effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • maintain the character (including quality and value) of the landscape; • blend in with characteristic features and elements; and • enable a sense of place to be retained.
6 Slight adverse (negative) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • not quite fit the character (including quality and value) of the landscape; • be at variance with characteristic features and elements; and • detract from a sense of place.
7 Moderate adverse (negative) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • conflict with the character (including quality and value) of the landscape; • have an adverse impact on characteristic features or elements; and • diminish a sense of place.

Significance category	Typical descriptors of effect
8 Large adverse (negative) effect	The scheme would: <ul style="list-style-type: none"> • be at considerable variance with the character (including quality and value) of the landscape; • degrade or diminish the integrity of a range of characteristic features and elements; and • damage a sense of place.
9 Very large adverse (negative) effect	The scheme would: <ul style="list-style-type: none"> • be at complete variance with the character (including quality and value) of the landscape; • cause the integrity of characteristic features and elements to be lost; and • cause a sense of place to be lost.

Table 10.7: Descriptors of significance of visual effects

Significance	Typical descriptors of effect
Very large beneficial	The scheme would create an iconic new feature that would greatly enhance the view.
Large beneficial	The scheme would lead to a major improvement in a view from a highly sensitive receptor.
Moderate beneficial	The scheme would cause obvious improvement to a view from a moderately sensitive receptor, or perceptible improvement to a view from a more sensitive receptor.
Slight beneficial	The scheme would cause limited improvement to a view from a receptor of medium sensitivity, or would cause greater improvement to a view from a receptor of low sensitivity.
Neutral	No perceptible change in the view.
Slight adverse	The scheme would cause limited deterioration to a view from a receptor of medium sensitivity, or cause greater deterioration to a view from a receptor of low sensitivity.
Moderate adverse	The scheme would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor.
Large adverse	The scheme would cause major deterioration to a view from a highly sensitive receptor, and would constitute a major discordant element in the view.
Very large adverse	The scheme would cause the loss of views from a highly sensitive receptor, and would constitute a dominant discordant feature in the view.

10.2.20 The LVIA considers the impact at the following timeframes:

- during construction. To ensure a reasonable worst case has been assessed, likely construction impacts have been based upon the construction information provided within *Appendix 3.2*. For the purposes of this assessment, a likely worst case scenario has been taken as assuming construction would be carried out concurrently across the scheme. This is a reasonable assumption for this assessment because the overall assessment of effects would not change if the works were undertaken within the specific envisaged periods for each section of works as described in *Appendix 3.2*. Otherwise, all other assumptions are drawn from the information provided within *Appendix 3.2*;
- year 1 - following scheme opening and in the first winter one year following planting completion (to represent a worst case scenario, before any planted mitigation can take effect), taking account of the completed scheme and the traffic using it; and
- year 15 - following scheme opening and during summer 15 years following planting completion, (to represent a best case scenario, where any planted mitigation measures can be expected to be reasonably effective), taking account of the completed scheme and the traffic using it.

10.2.21 The latter two assessment scenarios have been considered during both day and night time situations and against the situation that would exist if the scheme were not to proceed (referred to as the 'do-minimum' scenario).

10.2.22 The baseline year of 2016 remains relevant across the construction programme, including section 6 which would not commence until the new route was operational, because the assessed conditions are not expected to change over the duration of the programme as presented in *Appendix 3.2*.

Limitations

10.2.23 Access to viewpoints was restricted to publicly accessible areas and private land where access had been agreed. Assumptions have therefore been made, based upon the professional judgement of suitably qualified and experienced specialists, as listed in *Appendix 6.1*, for impacts on some private and/or inaccessible viewpoints.

10.2.24 The number of residential properties identified in *Table 10.13*, *Appendix 10.2* and illustrated on *Figure 10.7* and *Figure 10.8* has been calculated from site assessment and use of address point data where available. Professional judgement made by suitably qualified and experienced specialists, as listed in *Appendix 6.1*, has been used to determine the number of visual receptors where close access to the receptor was not possible and/or where address point data was not available. The number of business receptors has been assumed as one per receptor group where businesses are situated in close proximity to one another and would experience the same visual effects. This is because it was not possible to gain a clear understanding of the number of separate businesses in some

- areas. This approach is considered appropriate for the purpose of the assessment.
- 10.2.25 Impacts on views from the road have not been assessed. There are no routes that are classed as 'scenic', and the visual sensitivity of all vehicle travellers is therefore considered to be low. Whilst there would be adverse visual effects on road users, effects are unlikely to be significant either during construction or operation. Where public rights of way (PRoW) follow roads, they have been included in detail and considered as visual receptors of high sensitivity.
- 10.2.26 Impacts on views from existing and slightly realigned PRoW have been assessed. Impacts on PRoW that are removed have not been assessed because public access would no longer be available and there would no longer be a view to consider. Views from completely realigned PRoW and proposed non-motorised user (NMU) routes have not been assessed because there is no public access currently and a description of the existing view and an assessment of impact are therefore irrelevant.
- 10.2.27 Only visual receptors present at the time of assessment have been considered. Impacts on forthcoming visual receptors including those subject to planning permission have not been assessed because these receptors are not all guaranteed to be built and do not have current views that would be affected. The date at which potential future development would be completed is also unknown, and details are often in outline so that the layout/number of receptors and whether they would experience an effect cannot be determined. Where details are in outline, it is not possible to accurately account for whether a development would screen existing visual receptors and to what extent.
- 10.2.28 Only visual receptors within the ZTV (refer to *Figure 10.4*) that would experience an adverse or beneficial significance of effect have been included in *Appendices 10.2 – 10.5*. Whilst there are other receptors that would experience views of parts of the scheme, these have not been recorded in detail where the significance of effect would be neutral at all timescales.
- 10.2.29 Existing vegetation outside the DCO boundary offers visual screening/filtering from some locations and has been taken into account within the assessment of visual impacts in accordance with *IAN 135/10*. Changes to this vegetation would potentially affect the visual impacts caused by the scheme, but the management and retention of such vegetation is outside the control of the Highways Agency.
- 10.2.30 The LVIA has accounted for a variation of +/-0.5m within the vertical alignment (VA). The worst case scenario of the VA being 0.5 higher than the proposed VA has been assessed. *Figure 10.4* and *Figure 10.6* do not, however, account for any variation of the VA and have been produced on set VA data available at the time.
- 10.2.31 Gantry heights have been assumed to be 12m above the carriageway in order to assess the worst case scenario. Signage design was not available at the time of assessment and has not therefore been taken into consideration.

10.3 Baseline conditions

10.3.1 The baseline conditions set out the do-minimum scenario. This is the existing situation together with any known changes which are likely to take place before scheme construction. This section includes a description of designations relevant to the landscape assessment, the landscape context, topography and hydrology, settlement and land use, landscape pattern, land cover and vegetation, historical and cultural associations and future change. The landscape character is analysed through a review of published assessments and an assessment of local landscape character. The zone of theoretical visibility (ZTV) is described and existing views towards the scheme are discussed.

Designations

10.3.2 Designations relevant to landscape and visual impact are illustrated on *Figure 10.1*.

10.3.3 There are aspirations to designate part of the Great Ouse Valley between Earith and Great Paxton as an Area of Outstanding Natural Beauty (AONB). This would give formal recognition of the national importance of the landscape. The primary purpose of the designation is to conserve and enhance natural beauty. However the Great Ouse Valley is not currently designated as an AONB and there is no guarantee that the area would be designated as such in the future. Only designations in place at the time of this assessment have been taken into consideration.

10.3.4 A small section of Mill Common, immediately north of the A14, is registered common land. To the east of Huntingdon, Westside Common is a registered common, which is currently dissected by the A14.

10.3.5 Heritage assets are relevant to the LVIA in terms of impacts on landscape setting and because they contribute towards the value of the landscape. *Chapter 9* considers impacts on heritage assets in more detail. Childerley Park, Madingley Park and the American Military Cemetery are recorded on the Register of Historic Parks and Gardens held by English Heritage. There would be distant views towards the scheme from the American Military Cemetery (refer to *Appendix 10.5*). However, these locations are sufficiently far away from the scheme (approximately 1 – 3km) that they would not be significantly affected by the proposals.

10.3.6 Conservation areas, designated by local planning authorities for their special historic and/or architectural interest, are incorporated within many of the rural settlements surrounding the scheme. A large part of the urban extent of Huntingdon has conservation area status and is of particular relevance because parts of the scheme would be situated within it. In addition to Huntingdon, parts of the surrounding settlements within approximately 1km of the scheme also have conservation area status. These include:

- Alconbury;
- Brampton;
- Buckden;

- Fen Drayton;
 - Fenstanton;
 - Godmanchester;
 - Hilton;
 - Madingley; and
 - Offord Cluny.
- 10.3.7 Information on Huntingdon Conservation Area is contained within Huntingdon *Conservation Area Character Assessment* (Huntingdonshire District Council, 2007), as summarised in *Table 10.8*.
- 10.3.8 Statutory listed buildings are primarily concentrated within the conservation areas, but there are others scattered throughout the wider area surrounding the scheme. *Appendix 9.2* records listed buildings within 200m of the scheme. There are two scheduled monuments in Huntingdon immediately beside the existing A14. These comprise earthworks on Mill Common, which the existing A14 already encroaches upon, and Huntingdon Castle. The latter comprises a medieval motte (castle mound) and bailey (enclosed courtyard), which remain visible elements.
- 10.3.9 Brampton Wood at the western end of the scheme is recorded as ancient woodland by Natural England. Whilst not designated for landscape protection reasons, Brampton Wood is a site of special scientific interest (SSSI) and a nature reserve managed by the Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust which promotes its recreational value. The river Great Ouse and adjacent areas are also designated as county wildlife sites, which enhances local value.
- 10.3.10 There are several areas of vegetation and individual trees throughout the study area that are covered by TPOs. TPOs can either apply to individual trees or groups of trees (known as group TPOs). Within conservation areas, all trees with a trunk diameter of over 75mm at 1.5m above ground level are given a level of protection similar to trees designated with TPOs. This applies to all trees of this height within the Huntingdon Conservation Area. There are extensive group TPOs at Hinchingsbrooke Country Park, Huntingdon. Individual and group TPOs are located in several other locations surrounding the scheme, including east of Ermine Street, north-east of Lolworth, north-east of Bar Hill and west of Girton along 'The Avenue' (a full list of TPOs affected by the scheme is included under significance of effects below).
- 10.3.11 Immediately north and west of Cambridge, the scheme falls within an area designated as green belt. Whilst not strictly a landscape designation, the 'openness' of the landscape within the green belt is relevant to landscape impact assessment.

Landscape context

- 10.3.12 A full description of the existing route of the A14 is included in *Chapter 2*. The existing A14 runs past Ellington to the A1 Brampton Hut junction and on to Hinchingsbrooke along the valley of Ellington Brook to meet the A14 spur at Spittals. The A14 spur runs gently down from the low hill at Alconbury past the Stukeleys to Spittals. The A14 then runs through Huntingdon on an embankment across Views Common, on a viaduct over the East Coast mainline and the station and on an embankment across Mill Common, then continues past Huntingdon Castle on the north side of the floodplain meadows at Portholme, before crossing the river Great Ouse at Godmanchester. It runs across the floodplain of West Brook on its route eastwards towards Cambridge, where the A14 becomes the Cambridge Northern Bypass, cutting through Girton and continuing eastwards past Impington.
- 10.3.13 The proposed offline section of the scheme would divert from the existing A14 at Ellington to run parallel with the route of the A1 south. It would then swing east to run around the south side of Brampton and cross the river Great Ouse and its flood plain, before cutting through low hills of up to approximately 45m above ordnance datum (AOD) and crossing the West Brook floodplain to re-join the existing A14 at Fen Drayton.

Topography and hydrology

- 10.3.14 The topography of the scheme has resulted from the pattern of rivers and other watercourses as they flow generally northwards into the edge of the Fens, creating shallow valleys through the range of low hills to the south of Cambridge and around Huntingdon. These low hills generally rise to around 60 to 80m AOD. In contrast, the Fenland landscape to the north of the existing A14 extends over large areas at only 2 to 5m AOD, with the Fenland villages located on local rises, or 'eyes' of 10 to 20m AOD.
- 10.3.15 The river Great Ouse flows northwards between Buckden and the Offords, then eastwards around Portholme between Huntingdon and Godmanchester and past the Hemingfords, before heading north-east past St Ives. The wide and flat floodplain of the river Great Ouse and its main tributaries, including Ellington Brook flowing from the west and West Brook/Hall Green Brook flowing from the south, lies at about 10m AOD. The floodplain has been extensively quarried for aggregates, creating a pattern of lakes and occasional landfill sites. The gentle slopes of the river valleys create an enclosed landscape, which opens into the Fens east of the Hemingfords. The river Great Ouse meanders through a mosaic of wet pasture, working and disused gravel pits and lakes and is an important local recreational resource.

Settlement and land use

10.3.16 Land use within the study area comprises:

- Agricultural farmland (predominantly large scale arable fields);
- Natural features (river Great Ouse, various other smaller watercourses and Brampton Wood);
- Major highway infrastructure, including the A1, the existing A14 and Cambridge Northern Bypass;
- East Coast mainline railway line east of river Great Ouse;
- Residential;
- Commercial, including Brampton Hut Services, Cambridge Services, Buckingway Business Park south of Swavesey and Cambridge Science Park immediately south of the A14 Cambridge Northern Bypass; and
- Recreational sites such as Hinchingsbrooke Country Park, county wildlife site/gravel pits at Buckden and angling lakes at Fenstanton.

10.3.17 The largest settlements near the scheme include Huntingdon to the west and Cambridge to the east. Brampton and Hinchingsbrooke are to the south-west of Huntingdon and Godmanchester and St Ives are to the south-east and east. The existing A14 passes close to Brampton and Godmanchester and runs between Huntingdon and Hinchingsbrooke. The A14 Cambridge Northern Bypass runs between the Cambridge northern fringe and the extended villages of Impington, Histon and Milton and runs through the southern part of Girton. The Cambridge northern fringe is made up of housing, light industry and substantial offices and research establishments, including Cambridge Science Park, the Innovation Centre, the Regional College and the mixed-use development at Orchard Park. Between Huntingdon and Cambridge are The Hemingfords, Swavesey, Fenstanton, Fen Drayton, Longstanton, Oakington, Girton and Histon all to the north of the existing A14, with, Hilton, Conington, Boxworth, Lolworth, Madingley, Bar Hill and Dry Drayton all to the south of the existing A14. South of Huntingdon either side of the Great Ouse Valley are The Offords, Buckden, Brampton and Godmanchester.

Landscape pattern, land cover and vegetation

10.3.18 To the west of Cambridge the landscape south of the existing A14 is predominantly undulating and north of the A14 predominantly flat. Both landscapes offer expansive views of large scale intensive arable farmland, divided by sparse trimmed hedgerows, open ditches or streamside vegetation. The scattered woods, some of which are designated as ancient, form important landscape and wildlife features.

10.3.19 The smaller villages and isolated farms scattered throughout the area surrounding the scheme are often in sheltered places with tree cover. Small grass paddocks typically occur on the edges of villages, sometimes as part of parkland. Church spires and towers, wind turbines and water towers often form distinctive local landmarks.

Historical and cultural associations

- 10.3.20 Many of the historical features are designated (as described in the designations section of this chapter, above). Other heritage assets are described in *Chapter 9*.

Future change

- 10.3.21 Further development could influence the character of the local landscape, the character of existing views and the pattern and extent of visual receptors. Further development may also cause cumulative effects when combined with the effects of the scheme. Major developments proposed around the scheme are outlined below. Local plan land allocations for major proposed development sites relevant to this assessment are illustrated on *Figure 10.1*. These developments do not form part of the dominant baseline scenario (because of the reasons described within limitations above), but are included within the baseline to describe potential future change only.

Northstowe

- 10.3.22 This site is approximately 2km to the north of the scheme at the nearest point. The new town of Northstowe is being developed to the north-west of Cambridge on and around the former Oakington airfield, to the east of Longstanton and north of Oakington and bounded by the Cambridge Guided Busway route to the east. The *Northstowe Area Action Plan Development Plan* (South Cambridgeshire District Council, 2007) establishes the overall vision for Northstowe including its relationship with surrounding villages and its countryside setting. Northstowe would be served by the Cambridgeshire Guided Busway to provide public transport links to St Ives, Huntingdon and Cambridge. The new town is expected to accommodate up to 10,000 homes. It would provide some additional potential views towards the scheme, especially from the additional footpath and cycle links to the south of Northstowe that would be provided as strategic links to neighbourhood areas.
- 10.3.23 Phase 1 Northstowe comprises an approved planning application which allows for 1500 dwellings together with associated and complementary uses, infrastructure, services and facilities. The core application site is situated within the northern section of the Northstowe allocated major development site, over 2.5km from the scheme at the nearest point. Whilst the application area includes land north of Bar Hill junction and east of Hattons Road, approximately 800m north of the scheme, this would be for the development of associated drainage/attenuation ponds and not for housing. It is not therefore considered likely that the scheme would cause any significant adverse effects on any potential future views from Northstowe because of the distance between the scheme and this area.

North West Cambridge

- 10.3.24 From approximately 30m south of the scheme, the North West Cambridge development site would be located to the south-west of the A1307 Huntingdon Road, east of the M11 and south of the A14 Girton interchange. *North West Cambridge Area Action Plan Development Plan* (Cambridge City Council and South Cambridgeshire District Council, 2009) identifies land to be released from the Cambridge green belt to contribute towards meeting the development needs of Cambridge University. It establishes an overall vision and objectives to achieve this.
- 10.3.25 An outline planning application has been approved within the northern extent of this area immediately south of the A14 Girton interchange for a mixed development including 3,000 dwellings, up to 2,000 student bed spaces as well as large areas of commercial and employment floor space. The development also allows for the demolition of some of the existing buildings west of Huntingdon Road. If taken forward, the development would remove some existing visual receptors and create some new visual receptors with views towards the scheme. Based on schematic plans of the development, close views towards the scheme from new residential areas are likely to be screened by new academic/research buildings and a potential 'reserved energy centre'. However the latter, slightly less sensitive visual receptors, may have views of the scheme.

National Institute of Agricultural Botany (NIAB) site

- 10.3.26 Approximately 440m south of the scheme at the nearest point, permission has been granted for 'NIAB Darwin Green 1', a residential based urban extension which would occupy a substantial proportion of the land between the residential estates west of Histon Road and the southern part of Girton, effectively joining the two residential areas. A northward extension of the allocation, 'NIAB2', consists of a forthcoming application for 1,100 homes and associated infrastructure within an area allocated for housing, which would bring the development to within very close proximity to the A14 (approximately 20m at the nearest point). The development would change the character of the local landscape and would provide a range of additional potential views towards the scheme, but would also include its own screen planting and earthworks between housing and the A14 which would limit the views. It would also screen the existing views of the A14 from properties and footpaths along the eastern edge of the southern part of Girton and along the western edge of the housing west of Histon Road.

Orchard Park

- 10.3.27 Approximately 40m south of the scheme at the nearest point, Orchard Park (formerly Arbury Park) comprises a mixed use development including residential, commercial and education facilities and some local open spaces on land allocated for housing south of the A14 Cambridge Northern Bypass between the Histon and Milton junctions. It is in the process of being developed and is situated adjacent to the A14 Cambridge Northern Bypass, behind an existing noise barrier. Planning permission is in place for some housing which would increase the number of visual receptors with close views of the A14 Cambridge Northern Bypass if taken forward.

Huntingdon

- 10.3.28 In Huntingdon, planning permission has been granted for a new Sainsbury's supermarket on the site between George Street and Ermine Street, approximately six hectares in area, which is allocated for mixed uses including retail, residential, employment and open space uses. A new link road between George Street and Ermine Street has recently been completed across the site providing access to individual development plots. The de-trunked A14 that forms part of the scheme would join the new link road at a junction on George Street. There is also a group of sites collectively referred to as the Hinchingsbrooke Community Campus which includes the area around the water tower and the area west of the Cambridgeshire Constabulary Headquarters. These sites are allocated for employment, non-residential institutional and office uses. If developed the pattern of visual receptors relevant to the scheme would change, with potential new receptors blocking views from existing visual receptors.

Published landscape character studies

- 10.3.29 *Table 10.8* summarises landscape character areas that have been previously identified throughout the study area in published studies from national to local scale. *Figure 10.2* identifies the extent and arrangement of these character areas within the study area.

Table 10.8: Published landscape character areas within the study area

Landscape character area	Description
National Character Area 88: Bedfordshire and Cambridgeshire Claylands (Natural England) (NCA 88)	
NCA 88. <i>Bedfordshire and Cambridgeshire Claylands</i>	<p>Key characteristics of NCA 88 include:</p> <ul style="list-style-type: none"> • <i>“Gently undulating topography and plateau areas, divided by broad shallow valleys.</i> • <i>Predominantly an open and intensive arable landscape. Fields bounded by either open ditches or sparse closely trimmed hedges, both containing variable number and quality of hedgerow trees.</i> • <i>River corridors of Great Ouse and Ivel compose cohesive sub-areas characterised by flood plain grassland, riverine willows and larger hedges.</i> • <i>Woodland cover variable. Clusters of ancient deciduous woods on higher plateau area to north-west between Salcey and Grafham Water. Smaller plantations and secondary woodland within river valleys.</i> • <i>Settlement pattern clusters around major road and rail corridors (A1 and M1) many with raw built edges. Smaller, dispersed settlements elsewhere. Village edge grasslands an important feature.</i> • <i>Man-made reservoir at Grafham Water. Restored gravel working lakes adjacent to river Great Ouse....”</i> <p>The Campaign to Protect Rural England (CPRE) has undertaken a study of tranquillity in England and has mapped and published the results. CPRE highlights new roads, planes and runways, light pollution and a lack of funding as the greatest threats to remaining levels of tranquillity. Major highways including the existing A14 are listed as areas of disturbance and low tranquillity within NCA 88.</p>
Cambridgeshire Landscape Guidelines (Cambridge County Council, 1991)	
<i>Western Claylands</i>	<p>The ‘Western Claylands’ is a gently undulating landscape consisting of large-scale arable farmland with open fields, sparse trimmed hedgerows and watercourses often cleared of bankside vegetation. Scattered individual woods are of importance in visual and nature conservation terms, but they tend to be isolated features in an area dominated by arable farmland. Increased modern agricultural practices have led to the removal of hedgerows and amalgamation of fields. Marginal land has been brought into production by drainage and other soil improvement. Larger farm units have created a need for large storage buildings which can be visually prominent in the landscape. Villages and hamlets are scattered throughout the area, usually in sheltered places with existing trees. Small grass paddocks typically occur on the edges of the villages.</p>
<i>Ouse Valley</i>	<p>The ‘Ouse Valley’ landscape is characterised by the meandering river Great Ouse in its shallow valley which bisects the claylands that form the western edge of Cambridgeshire. The margins of the river consist of a mosaic of flood plains and grazing meadows, working and disused gravel pits and lakes, sprawling housing areas and industrial estates. Downstream, the Ouse Valley is characterised by thick hedges, trees and fields.</p>

Landscape character area	Description
<i>Fenlands</i>	This landscape character area is located to the east of the scheme and east of Fen Ditton. The scheme would not affect this area and it is not therefore described in any detail.
<i>Chalklands</i>	This landscape character area is located to the south of the Cambridge Northern Bypass at the eastern extent of the scheme, covering Cambridge Science Park, and east of the scheme covering Milton. The scheme would not affect this area and therefore it is not described in any detail.
Huntingdonshire Landscape and Townscape Assessment SPD (Huntingdon District Council, 2007)	
<i>Central Claylands</i>	<p>The Central Claylands are described as follows:</p> <p><i>“There are several land uses within the Central Claylands, including woodland, urban areas and airfields. However, the great majority of the area is typified by arable farmland, gently undulating between 10-50m AOD. The large field size of farmland creates a strong sense of openness and exposure, which is enhanced by the lack of trees and hedgerows across much of the area.</i></p> <p><i>Along the major communication corridors through the area (the A1, A14, A141, etc.) the landscape character is dominated by large scale developments, including air bases, large industrial units, extensive housing areas and the roads themselves, with their associated movement, noise, signage, bridges, etc. The abrupt edges of these developments mean that they are particularly intrusive in views of the surrounding countryside. “Key issues relevant to the scheme include:</i></p> <ul style="list-style-type: none"> • <i>“Protection and management of existing ancient woodland and hedgerows.</i> • <i>Planting of new blocks of native woodland and hedgerows to provide a stronger sense of structure to the landscape, and to screen intrusive structures where appropriate.”</i>
<i>Southern Wolds</i>	<p>The Southern Wolds are described as follows:</p> <p><i>“Their strongest visual characteristic is the extent of woodland cover (particularly on the central ridge, which divides the Kym and Ellington valleys), and vegetation plays a major part in giving this area its distinctive identity.</i></p> <p><i>The Valley of the Ellington Brook is dominated by the A14, which runs along the centre of the valley. The stream itself is narrow, meandering tightly within a wide floodplain.</i></p> <p><i>This part of the Southern Wolds has a deeply rural character and there are long views over the surrounding countryside.</i></p> <p><i>A key difference between the settlements is the extent of modern development: most villages contain at least one estate of post-war housing. Much of this is poorly integrated with its surroundings due to the use of non-local materials and lack of screening to the settlement edge.</i></p>

Landscape character area	Description
	<p><i>Away from the main roads and settlements, the Southern Wolds feel tranquil and secluded. The sense of seclusion is largely due to the lack of settlement and the amount of mature vegetation in much of the area, which also contributes to the sense of enclosure.”</i></p> <p>The one key issue relevant to the scheme is, <i>“Preservation and management of existing deciduous woodlands.”</i></p>
Ouse Valley	<p>The Ouse Valley is described as follows:</p> <p><i>“The gravels and fertile alluvial soils deposited by the river have had a strong influence on the development of the Ouse Valley. The latter have supported the hay meadows and rich grazing land of the area for centuries, whilst the former have been extracted in more recent times for use as aggregate.</i></p> <p><i>The variety of land use influences in the Ouse Valley have resulted in a complex mosaic of landscape types, including hay meadows and river valley pasture; river valley arable; urban park; industry (gravel extraction); flooded gravel workings (fisheries, nature reserves etc.) and marinas.</i></p> <p><i>Each of the landscape types creates a different atmosphere, but, on the whole, the area feels tranquil and relatively isolated because of the screening effect of vegetation and the calming quality of the slow-flowing water.</i></p> <p><i>The 20th Century has seen considerable development within the Ouse Valley. Gravel extraction has led to many flooded workings, which have regenerated and/or been restored to provide a range of uses, including fisheries, nature reserves and landfill sites. Other modern developments include marinas, industrial estates and residential areas. Where the river passes through larger settlements, such as Godmanchester and St Neots, the valley is sometimes managed as an urban park, providing public access and recreation.”</i></p> <p>Key issues relevant to the scheme:</p> <ul style="list-style-type: none"> • <i>“Protection and enhancement of a 'Green Corridor' along the river Great Ouse, particularly where it passes through settlements.</i> • <i>Incentives to encourage management and planting of native wetland trees to maintain the traditional vegetation of the area, and to screen intrusive development.”</i>
South East Claylands	<p><i>“This character area contains areas of attractive landscape achieved through the combination of landform, established woodland and hedgerows, well managed farmland and picturesque villages.</i></p> <p><i>The relative lack of settlement in the area, combined with the mature vegetation, creates an intimate and tranquil landscape which feels remote and has a strong sense of history.</i></p> <p><i>However, in the areas most affected by visually intrusive development, and where vegetation has been lost due to agricultural change, the scale of the landscape becomes much larger, and the sense of intimacy and tranquillity is lost.”</i></p>

Landscape character area	Description
	<p>Key issues relevant to the scheme:</p> <ul style="list-style-type: none"> • <i>“Management of native woodlands and hedgerows. Replanting where appropriate.</i> • <i>Protection of tall hedgerows with hedgerow trees which are a distinctive feature of the central area.</i> • <i>Planting of tree and woodland belts along major roads to screen visually intrusive development particularly to the edges of the main settlements, subject to the needs of highway maintenance, safety of motorists”</i>
Huntingdon	<p>The study divides the urban extent of Huntingdon into nine urban character areas. East of the railway line the scheme falls within the Ouse Valley landscape character area rather than within any of the nine urban areas. West of the railway line the scheme falls within Hinchingsbrooke urban character area, which is the only urban character area affected.</p> <p>Key issues relevant to Hinchingsbrooke urban character area and the scheme include:</p> <ul style="list-style-type: none"> • <i>“The character of the Hinchingsbrooke area is changing rapidly through continued commercial and residential development. Whilst the area is capable of accommodating further change, future development should be carefully planned and designed to create a sense of coherence and distinctiveness. Priorities should be to:</i> <ul style="list-style-type: none"> • <i>Encourage screen planting along the boundary of the A14 to provide a more substantial landscape buffer to areas of new development.</i> • <i>Protect areas of mature trees and develop a strategy for their long term maintenance and replacement where appropriate.</i> • <i>Protect Hinchingsbrooke House including its landscape setting.”</i>
Huntingdon Conservation Area Character Assessment (Huntingdon District Council, 2007)	
<p>The <i>Huntingdon Conservation Area Character Assessment</i> (Huntingdon District Council, 2007) considers the important historic open areas of Mill Common and Views Common within its study area. The assessment comments on the strong enclosure formed by the shelterbelt along the edge of Hinchingsbrooke and the Cambridgeshire Constabulary HQ, the landmark buildings and the influences that the railway and the A14 have had in dissecting the town, including:</p> <p><i>“Mill Common was an integral element of the medieval settlement and largely within the boundaries of the borough. Originally the Common extended westwards from the vicinity of Walden Road and the Castle to roughly the line of the railway and approximately from the Brampton Road and George Street in the north to the Alconbury Stream in the south.</i></p> <p><i>The course of the A14 now divides the Common and the area north of the Alconbury Brook is partly built up. Views Common has been badly affected by the course of the A14 and its construction. It has also had access from the town restricted by the railway line. Accessibility remains an issue and needs an imaginative fresh approach. There is some good ridge and furrow on part of the Common.”</i></p>	

Landscape character area	Description
<p>Cambridge Green Belt Study (South Cambridgeshire District Council, 2002) Landscape character areas defined in the above also inform the <i>Inner Green Belt Boundary Study</i> (Cambridge City Council and South Cambridgeshire District Council, 2012)</p>	
<p>5A Western Claylands</p>	<p><i>“This area is characterised by a combination of open arable fields and mature vegetation. This vegetation includes deciduous woodland on ridge tops, and hedgerows along routes and field boundaries.</i></p> <p><i>The overall impression is of a mature, peaceful rural landscape which enhances the topography of east-west ridges. There are some distant views of Cambridge from high points, but the majority of these views are screened by vegetation in the summer months.”</i></p>
<p>2A Western Fen Edge</p>	<p><i>“It is a relatively low-lying landscape.....slightly higher than the Fen proper. It is a flat and expansive landscape, where sky and horizons are dominant features. Arable agriculture is the principal land use, and the land is divided into medium-sized regular fields. Hedges and shelterbelts between fields, plus several orchards, add a distinctive pattern of vegetation into the landscape.</i></p> <p><i>Views to Cambridge are restricted by the low-lying topography and the A14. Therefore the only key views to Cambridge from the western fen edge are from the A14 itself. The A14 also acts as an artificial edge to the city, and undermines the gentle transition between the city and the fen edge.</i></p> <p><i>The villages closest to Cambridge (Girton, Histon and Milton) have all expanded considerably in the 20th century, and are now often perilously close to being linked to Cambridge by suburban routes. However, each has retained its individual village character.”</i></p>

Local landscape character and sensitivity

- 10.3.30 The published landscape character assessments, described above, do not provide assessment at a detailed scale that is consistent across the study area and are not therefore suitable to use as a basis against which to assess the landscape impacts. The existing studies have been used to provide a basis for further assessment of landscape character and sensitivity. Further assessment has been carried out at a more detailed scale and provides a consistent approach throughout the study area. This approach has been followed in order to consistently assess the landscape impacts along the route of this linear scheme.
- 10.3.31 The assessment has been based on the guidance presented in the *Landscape Character Assessment Guidance for England and Scotland*, (The Countryside Agency and Scottish Natural Heritage, 2002), which aims to identify areas of broadly homogenous landscape character at a consistent scale. The landscape surrounding the scheme is of gentle relief with generally subtle changes in character and few places where clear changes in character can be defined at a local scale. As such, the character areas in *Table 10.9* do not have exact boundaries, but are intended to serve as a basis for assessing the differing effects that the scheme would have on the landscape along its length. The landscape has

been described by identifying six different landscape character types along the route and then dividing these into distinct character areas. The landscape character areas are illustrated on *Figure 10.3*, where colour is used to depict the landscape character types and numbers to identify the landscape character areas, as set out in *Table 10.9*.

Table 10.9 Local landscape character types and areas

Landscape character types		Landscape character areas	
Type	Features	Ref	Area
Gently Undulating Open Farmland	Broad scale open arable land with limited tree and hedge cover, but more enclosure around villages and isolated farms.	1	Ellington Brook Farmland
		8	Offord Road to Wood Green Farmland
		13	Boxworth to Madingley Farmland
Woodlands and Reservoir	A broad scale gently rolling topography, including Grafham Water, open arable fields, woodlands and plantations.	2	Brampton Wood to Buckden
River Valley Floodplain	Flat floodplains with a mixture of small scale farmland and recreational uses, including flooded gravel pits and extensive tree cover. Crossed by roads and railway.	4	North-Flowing Ouse Valley Floodplain
		5	East- Flowing Ouse Valley Floodplain
Low-lying Farmland	Transitional area between undulating agricultural land and fenland edge or floodplain. A nearly flat open arable landscape with some tree and hedge lined fields. Settlement and roads often dominate.	3	Brampton Farmland
		9	Hilton to Fenstanton Farmland
		12	Hill Farm Farmland
		15	Girton West Farmland
Fenland Edge Farmland	Low lying, open, largely arable landscape has a predominantly flat topography with a regular drainage pattern, linear villages, horticultural uses and occasional trees in hedgerows.	10	Hilton Road Farmland
		11	Fen Drayton Farmland
		16	Oakington Farmland
		18	North Cambridge Farmland
Towns and Villages	Predominantly urban areas, but may include areas of open land.	6	Huntingdon
		7	Godmanchester
		14	Bar Hill
		17	Girton
		19	Histon and Impington
		20	North Cambridge
		21	Milton

10.3.32 The assessment of local landscape character identified several towns and villages that have their own distinct character. Of these, only parts of Huntingdon, Girton, Impington, Milton and North Cambridge would be

physically changed by the scheme and therefore these are included in the descriptions of the character areas below. Godmanchester is also included, because it is anticipated that there would be significant changes in the level of traffic within the town.

- 10.3.33 The local landscape character areas are described below in numerical order (west to east). The assessment of sensitivity is based upon a three point scale from low to high, as set out in *Table 10.2*.

1. Ellington Brook Farmland

- 10.3.34 Ellington Brook Farmland is a large scale, arable landscape of gentle ridges and valleys, with open fields, sparse trimmed hedgerows and scattered copses. This area includes part of the floodplains to Ellington Brook and Alconbury Brook, along with some of the land uses that characterise the floodplain landscape type, such as flooded gravel pits and recreational uses. However, due to the generally open character of the land, this does not create an area of distinct identity that separates it from the open farmland, unlike the Great Ouse Valley floodplain to the east.

- 10.3.35 Larger farm units, Huntingdon Research Centre and the Huntingdon Recycling Centre have created a need for large scale buildings and mounds, which can be prominent detracting features in the landscape where vegetation has been lost. Other detracting features include the existing A14, the A1 to the north of Brampton Hut Services and an electricity transmission line. Intense arable use is the principal characteristic and has removed many hedgerows and hence detail from the landscape. The variations in landform can create an attractive appearance in good weather conditions, but there is only limited sense of place, usually where there are views of villages or views out over the lower lying areas. The sensitivity of this character area is therefore assessed as low.

2. Brampton Wood to Buckden

- 10.3.36 Brampton Wood to Buckden consists of a broad scale gentle topography, except for the steeper ridge to the north of Grafham Water and Brampton Wood. It is an attractive, partly wooded landscape, with hedged fields and plantations and occasional villages and isolated farms. Grafham Water, although an important element within the wider landscape, is not visible from the area of the scheme. There are occasional detracting features, including the overhead electricity transmission lines that run around the west side of the reservoir and then run west of Ellington and also south of Ellington to cross the existing A14 west of Brampton Hut. Buckden, which is designated as a conservation area, lies on the eastern edge of this character area, where the landscape begins to change to the Great Ouse Valley floodplain.

- 10.3.37 Modern agricultural practices have resulted in a loss of hedgerows, ponds, riverside meadows and other traditional features of the landscape, although the landscape still retains numerous woodlands and hedgerows. The woodland cover is a strong visual characteristic and plays a major part in giving this area its distinctive identity. There are various woodland types within the area, including ancient woodland at Brampton Wood and conifer plantations. Copses, hedgerows and hedgerow trees also make an

important contribution to the well vegetated character of the area. There are characteristic patterns of hedgerow and woodland and balanced combinations of landform and land cover, with some detracting features. The sensitivity of this character area is therefore assessed as moderate.

3. Brampton Farmland

- 10.3.38 Brampton Farmland is the western part of the broad shallow valley created by the confluence of the river Great Ouse and Ellington Brook, although the impression of a self-contained vale is created between the slope to Brampton Wood and the visible urban edge to Brampton, in places softened by copses or substantial hedgerows.
- 10.3.39 The southern part of the area includes Buckden, set on the gentle slope to the west of the Great Ouse floodplain, as well as the locally raised landform of Buckden South landfill. The A1 is the principal detracting feature, running through the west side of Buckden and then along the middle of the character area to Brampton Hut junction.
- 10.3.40 The topography is almost flat and contains both arable and pastoral agriculture, mostly open arable fields with few hedgerows. There are some parts with trees and hedge lined fields and lanes, forming a distinguishable landscape structure, particularly the small fields on the south west side of Brampton, west of Park Road. It is an agricultural landscape of limited variety and, due to the proximity of the A1, a low degree of tranquillity. The sensitivity of this character area is therefore assessed as low.

4. North-Flowing Ouse Valley Floodplain

- 10.3.41 The Ouse Valley is considered an area of high quality with a distinctive character by Huntingdonshire District Council in its Landscape Assessment. There is a strong landscape structure and the constant feature throughout the character area is the river Great Ouse, which splits into smaller meandering channels. Enclosure is provided by the gentle slopes of the river valley and by the trees along the various watercourses and hedgerows, including the former railway line, as well as around the older flooded gravel pits. Buckden South landfill has created a gentle raised landform that adds to the local enclosure.
- 10.3.42 However, there are several urbanising influences from past and continuing activities, including the gravel extraction areas, the East Coast mainline railway and Buckden Marina. In the parts where the tree cover is well established around the large water-bodies that are flooded gravel workings, the character is more tranquil and isolated. The principal characteristic that distinguishes this part of the river valley is that it is distinct from the open arable landscape that typifies much of the surroundings. Recreational activities include walking the Ouse Valley Way footpath, boating and fishing. The river provides an evident sense of place, but the detracting elements and the continuing extraction activity means that the sensitivity of this character area is assessed as moderate.

5. East-Flowing Ouse Valley Floodplain

- 10.3.43 The East-Flowing Ouse Valley floodplain is generally narrower and has more urban elements than the north flowing part of the floodplain. There

are significant towns and large villages containing attractive buildings that have a strong relationship with the river and floodplain. These include the southern and eastern edges of Huntingdon, the northern and western parts of Godmanchester, the Hemingfords and the southern edge of St Ives. Substantial areas are protected for their nature conservation importance; there are large registered commons (Portholme and Westside Common) and the river passes through the conservation area between Huntingdon and Godmanchester. The river, the open land of the commons, especially Portholme, and the adjacent groups of historic buildings provide an evident sense of place, framed by the mature trees along the riverside and around the flooded gravel workings. There are occasional detracting features, including the East Coast mainline railway that runs on low embankment across the floodplain, the existing A14 and its traffic that are prominent north of Godmanchester and crossing the river, Hartford Marina and the A1123. The evident sense of place and the range of areas and features of value, through recreational use and historical and cultural associations, mean that the sensitivity of this character area is assessed as high.

6. Huntingdon

- 10.3.44 Huntingdon is situated on the north bank of the river Great Ouse. It lies on Ermine Street which, running north-west through the town, always formed the main thoroughfare. Huntingdon (with Godmanchester) owes its importance to its position at the crossing of the river Great Ouse by Ermine Street on its way from London to Lincoln and York. The site of Huntingdon Castle that overlooked the crossing lies between Ermine Street and the river. The historic centre has buildings of mixed styles and ages including medieval, Georgian, Victorian and Edwardian.
- 10.3.45 Huntingdon's importance as a coaching stop, not a river port, meant that the town developed along the High Street rather than the river bank. The river Great Ouse, with its wet pasture, is a key feature of the southern approach to the town, which is entered from Godmanchester across the notable 14th century bridge. The historic centre connects to the river setting at the bridge, with a limited historic river frontage, including a coaching inn, between the bridge and the site of Huntingdon Castle.
- 10.3.46 Mill Common is the remaining part of the open grazing land that once extended from the town southwards to the river and its mill. The railway line from St Ives first cut across the space and subsequent developments then reduced the open area, with large detached houses now backing onto the river. The A14 followed part of the former railway alignment and the town ring road was constructed around the central area, such that the historic centre is now largely separated from the river by roads, housing and Mill Common. Views Common is the remaining part of the grazing land that once extended to the west of the town centre and north of Hinchingsbrooke Park. This was cut across by the East Coast mainline railway and later by the A14.
- 10.3.47 The presence of the Mill Common and Views Common grazing lands give parts of the west side of Huntingdon a distinctive 'pastoral' character. This is somewhat unusual given the close proximity to the town centre.

- 10.3.48 Beyond the historic centre are areas of housing to the north, north-east and east; and large areas of modern housing on Stukeley Meadows to the west. An extensive area of large-scale warehouses, industrial units and office buildings is located to the northwest of the historic centre on both sides of the railway line.
- 10.3.49 Hinchingsbrooke lies to the west of Huntingdon railway station and south of the existing A14. The character of this area is strongly influenced by the presence of the historic Hinchingsbrooke House and its associated estate. The house, built in the 16th century on the site of a medieval convent, was once home to the Cromwell family. It now forms part of Hinchingsbrooke School and modern buildings, playing fields and car parks occupy much of its immediate grounds. The wider estate has also been extensively developed and now contains areas of residential development, a business park, police and fire headquarters and Hinchingsbrooke Hospital. However, many historic elements of the house and estate, including boundary walls and railings, areas of open grassland and mature parkland trees, avenues and shelterbelts still remain and contribute strongly to the character of the area, and the house itself is still an important feature.
- 10.3.50 The existing A14 runs along the edge of Mill Common and across Views Common, largely on raised embankments. Between the commons a substantial elevated concrete viaduct structure carries the existing A14 across both the B1514 Brampton Road and the East Coast mainline railway in the vicinity of Huntingdon railway station. The existing A14 also closely follows the south side of the Huntingdon Castle area on embankment and crosses the river Great Ouse on a high level bridge. The elevated nature of this major dual carriageway route and its heavy traffic flows has a dominant and adverse influence on the character of the west side of the town.
- 10.3.51 There are some prominent detracting features in Huntingdon, including the existing A14 and its viaduct and embankments. Current land uses also mask some of the underlying patterns of built form of the town and the relationship of the town to the river. However, there is still a strong sense of place in the town centre and the riverside areas adjacent to it, and there are many heritage assets, including listed buildings and scheduled monuments, which have strong and important cultural associations. Much of the town centre, including the entire area impacted by the scheme, is designated as a conservation area. In addition Hinchingsbrooke House and estate and the historic commons make a highly distinctive contribution to the character of the south and west sides of the town.
- 10.3.52 Judgments on sensitivity would therefore vary within the Huntingdon character area. In terms of value and sensitivity the town's character has for simplicity been considered in three 'sub-areas', which are shown on *Figure 10.3* and as follows:
- 10.3.53 Hinchingsbrooke and the Central Part of Views Common: This sub-area includes part of the historic Hinchingsbrooke estate which has strong historic associations. It also encompasses the pastoral character of Views Common, and lies within a conservation area which includes listed buildings and numerous mature trees with TPO status. Sensitivity is assessed as high.

- 10.3.54 Station Environs: This sub-area includes the existing A14 viaduct and embankments, the adjacent parts of Mill and Views Commons, a section of Brampton Road including the recently completed link road junction and residential housing to the west of the station. In this sub-area the station is a listed building lying within a conservation area, and the commons are high value privately owned green spaces with a pastoral character which also lie within a conservation area. The station and Brampton Road are also key entry points to the town. However, the existing extensive infrastructure in the sub-area, including the A14 viaduct, is a detractor. Sensitivity is assessed as moderate.
- 10.3.55 Eastern Part of Mill Common: This sub-area is dominated by Mill Common and also includes adjacent properties and parts of the ring road. It has strong historic associations, and Mill Common has a pastoral character. The sub-area lies within a conservation area which includes listed buildings and trees with TPO status. Sensitivity is assessed as high.

7. Godmanchester

- 10.3.56 Godmanchester, which is designated as a conservation area, is set on the eastern bank of the river Great Ouse. The town has a highly distinctive historic core based on the Roman street layout that forms an approximate pentagon. There are narrow lanes, a distinctive riverside setting and many historic buildings, including well preserved 17th century timber framed houses. The majority of buildings of historic interest are found along the five principal streets and along the approach roads. Modern housing and industrial development has taken place on the south and east side of the historic centre, but is limited in extent. The river Great Ouse defines the western edge of the town and the A1198 bypass defines the eastern edge, apart from the business park. The existing A14 skirts the main part of Godmanchester to the north, mostly on embankment, but passes through the small area around the historic Maltings building, beside the river Great Ouse. Large parts of the historic central area and the Maltings are included in conservation areas.
- 10.3.57 The direct route for traffic between Huntingdon and the existing A14 to the east is to use Godmanchester junction and then Cambridge Road and The Avenue to reach the old bridge over the river Great Ouse. This flow of traffic, particularly the heavy goods vehicles (HGVs), has a dominant and adverse influence over the character of the enclosed spaces of the streets. The raised route of the existing A14 and its heavy traffic flow also has an adverse influence over the character of the northern edge of the town and over the Maltings area and the river. Nonetheless, the evident sense of place, the balanced combinations of built form and undeveloped space and the features of value through use and historical and cultural associations mean that the sensitivity of this character area is assessed as high.

8. Offord Road to Wood Green Farmland

- 10.3.58 Offord Road to Wood Green Farmland is a large scale, arable landscape of gentle ridges and valleys, with open fields, sparse trimmed hedgerows and scattered copses. The Offords are set on the western edge of this character area, where it merges into the Ouse Valley floodplain. Godmanchester and the existing A14 form parts of the northern edge of this character area.
- 10.3.59 The area includes the A1198 and the wind turbine at Wood Green Animal Shelter and has the East Coast mainline railway along the west side. Larger farm units have created a need for large storage buildings, which can be prominent detracting features in the landscape where vegetation has been lost. There are a few parts with characteristic patterns and a balanced combination of landform and land cover, mostly related to the farms and lanes, but intense arable use is the principal characteristic and has removed many hedgerows and hence detail from the landscape. However there are some strong tree belts remaining, such as those located south of Wood Green Animal Shelter which have TPO status.
- 10.3.60 The variations in landform can create an attractive appearance in good weather conditions, but there is only limited sense of place, usually where there are views of villages or views out over the lower lying areas. The sensitivity of this character area is therefore assessed as low.

9. Hilton to Fenstanton Farmland

- 10.3.61 The topography of Hilton to Fenstanton Farmland is nearly flat or of gentle slopes between the higher ground around Elsworth to the south and the floodplain landscape north and west of Fenstanton. Set within this character area are Fenstanton and Hilton which are conservation areas, as well as Conington. There are some trees and hedge lined fields and lanes forming a distinguishable landscape structure, particularly around the east side of Hilton and in the parkland around Conington Hall. There are small orchards south of Fenstanton and an area of smallholdings between Fenstanton and Fen Drayton. Away from the village edges, it is an agricultural landscape of limited variety, of mostly extensive and open arable fields with few hedgerows and occasional copses, with parts affected by the existing A14, the B1040 or the A1198. The sensitivity of this character area is therefore assessed as low.

10. Hilton Road Farmland

- 10.3.62 Hilton Road Farmland is a large open landscape of flat or near flat topography, with few hedgerows and few trees away from the settlements and main farmsteads. There are some trees and hedge lined fields and lanes forming a distinguishable landscape structure, but these also limit the extent of views. It is mostly an agricultural landscape of limited variety, with extensive and open arable fields with few hedgerows and occasional copses, with parts affected by the existing A14 or the B1040. The sensitivity of this character area is therefore assessed as low.

11. Fen Drayton farmland

- 10.3.63 Fen Drayton Farmland is a large open landscape of flat or near flat topography, with few trees away from the settlements and main farmsteads. Set within this character area are Fen Drayton, which is designated as a conservation area, and Swavesey. The area can appear monotonous, although there are subtle changes from one place to the next, but little to provide a sense of place apart from the flatness. The network of lanes and villages means that there is not the sense of remoteness that characterises the true Fens further north. The open landscape provides moderately distant views where the scattering of clumps and individual trees merge together to produce a more densely tree covered horizon. In the open landscape, isolated agricultural or horticultural buildings, farmsteads and loose-knit villages are often prominent. The sensitivity of this character area is therefore assessed as low.

12. Hill Farm Farmland

- 10.3.64 Hill Farm Farmland is almost flat and covers the transition from undulating fields to the flat topography of the Fenland Edge. It is mostly a relatively narrow character area between the more expansive areas to either side.
- 10.3.65 Much of Bar Hill is set within this character area. There are belts of trees around The Grange, creating a parkland character, and tree planting around the golf course at Bar Hill creates a locally enclosed landscape. It is an agricultural landscape of limited variety of mostly extensive and open arable fields with few hedgerows and occasional copses. Due to the existing A14 along its length and the presence of industrial buildings at Buckingham Business Park, Utton's Drove wastewater treatment works and Bar Hill, it has a low degree of tranquillity. The sensitivity of this character area is therefore assessed as low.

13. Boxworth to Madingley Farmland

- 10.3.66 Boxworth to Madingley Farmland is a large scale, arable landscape of gentle ridges and valleys, with open fields, sparse trimmed hedgerows and scattered copses and game coverts. Within this character area are Boxworth, Lolworth, Dry Drayton, the southern parts of Bar Hill and Madingley, which is a conservation area. The villages are set within a pattern of mature trees or former parkland.
- 10.3.67 The area is crossed by the A428 and local roads. Larger farm units have created a need for large storage buildings, which can be prominent detracting features in the landscape where vegetation has been lost. There are some parts with characteristic patterns and a balanced combination of landform and land cover, mostly in the valleys and around the villages, but intense arable use is the principal characteristic and has removed many hedgerows and hence detail from the landscape. The variations in landform can create an attractive appearance in good weather conditions, but there is only limited sense of place, usually where there are views of villages or views out over the lower lying areas. The sensitivity of this character area is therefore assessed as low.

14. Bar Hill

- 10.3.68 Bar Hill is located approximately 8km northwest of Cambridge next to the existing A14. The concept of a 'new village' at Bar Hill was established in the early 1960s against the background of the Development Plan policies for the County, which aimed to preserve Cambridge primarily as a university town by containing growth of the built-up area of the city and the 'necklace' villages. The village was originally designed on the 'Radburn' principle of vehicular and pedestrian segregation. A perimeter road surrounds the residential estates which are linked together by a network of footpaths. Only the Fairway development overlooking the golf course and Thruffle Way lie beyond the perimeter road, and were permitted solely in order to provide an area of more expensive housing to give better social balance to the community. An industrial estate has been established off Saxon Way close to the A14 and the Menzies Cambridge Hotel lies close to the entrance to the village at the A14 interchange, with an 18 hole golf course along Crafts Way. The Tesco superstore in the village centre serves a large catchment area around Bar Hill and is complemented by a small shopping mall. There is a recreation ground in the middle of the village, within which is a social club.
- 10.3.69 The development is generally typical mixed suburban housing and substantial commercial and light industrial uses along the north side, which combined with the existing A14, mean that the sensitivity of this character area is assessed as low.

15. Girton West Farmland

- 10.3.70 Girton West Farmland covers the gentle slopes of the shallow vale between Madingley and Girton and contains both arable and pastoral agriculture. This area has a range of shelterbelts, game coverts, avenue trees, highway planting and hedge-lined fields and lanes, forming a distinguishable landscape structure, however, due to the presence of the existing A14, the A428 and the M11, all of which meet at Girton interchange, it also contains many uncharacteristic elements and has a low degree of tranquillity. The sensitivity of this character area is therefore assessed as low.

16. Oakington Farmland

- 10.3.71 Oakington Farmland is a large open landscape of flat or near flat topography, with few hedgerows and few trees away from the settlements and main farmsteads. Longstanton and Oakington are set on the edge of this character area and Girton lies to the east. There are areas of planting near the villages and the planting on Girton golf course is also beginning to create a more wooded character. The network of lanes and villages means that there is not the sense of remoteness that characterises the true Fens further north. The open landscape provides moderately distant views where the scattering of clumps and individual trees merge together to produce a more densely tree-covered horizon. In the open landscape, isolated agricultural or horticultural buildings, farmsteads and loose-knit villages are often prominent. The sensitivity of this character area is therefore assessed as low.

17. Girton

- 10.3.72 Girton lies close to the north-west edge of Cambridge. The parish church dates from the 12th century. By the end of the 19th century the village was expanding on the western side of Cambridge Road both to the north and south, along a series of lanes which lead off the main street. Between the wars, additional development took place – the Woodlands Estate was built by private developers in this period. Other development took place between Girton College and the city in the Thornton Road area and at St Margaret's Road and Bandon Road. Since the 1950s, smaller scale development has taken place, partly through the consolidation of residential areas and redevelopment of the ground of former houses. Girton College, the first women's college in the United Kingdom (now mixed) is of 19th century gothic architecture. It is set in extensive grounds between the existing A14, A1307 Huntingdon Road and Girton Road. The grounds form a well planted setting for the substantial college buildings as well as contributing to the character of the village on this approach into Cambridge.
- 10.3.73 Girton is currently affected by the existing A14, which runs through the southern part of the village in a cutting that separates the central part of the village from the area around Girton College to the south. Traffic movement on the existing A14 is largely visually contained when in the short cutting under Girton Road bridge, but is evident to either side, and the associated noise pervades the character of this part of the village. Recent development beside Cambridge Road has included housing and a small park adjacent to the north side of the existing A14 and offices adjacent to the south. The mixture of areas with a characteristic pattern of built form and undeveloped space and areas of typical mixed suburban housing, combined with the existing A14, mean that this sensitivity of this character area is assessed as moderate.

18. North Cambridge Farmland

- 10.3.74 North Cambridge farmland is a landscape of flat or near flat topography, with a pattern of small to moderately sized fields in the three undeveloped areas between Girton, Impington and Milton. The farming uses vary, but include intensive, research based agriculture, arable crops and grazing. Hedges are frequently low and intermittent, but there are more substantial hedges and shelterbelts to the east of Impington. The areas can appear monotonous, although there are subtle changes from one place to the next, but little to provide a sense of place. Uncharacteristic features include the existing A14, which is mostly on embankment through or along the edge of this area, the large buildings on the north edge of Cambridge and the workings of Milton landfill site. The sensitivity of this character area is therefore assessed as low.

19. Histon and Impington

- 10.3.75 Histon and Impington are physically joined and are considered as a 'necklace' settlement located on both sides of the B1049 north of Cambridge. The original settlement of Histon is focussed around the two manors of St Etheldreda and St Andrew, and a large oval green. One third of the green survives today with the village pond. The parish church of St Andrew has 13th century origins and was restored in the 19th century. There are a number of 17th and 18th century cottages and farmhouses traditionally built of timber frame, with thatched and plain tiled roofs.
- 10.3.76 The development of Impington began at two manorial sites – Burgoyne's Manor, now Burgoyne's Farm, and Ferme Park Manor, which is now the Impington Hall site. The parish church of St Andrew was rebuilt in the 14th century and restored in 1878. The Village College designed by Gropius and Fry is an important example of 1930s 'modern' architectural style and is a listed building. Industrial and residential development in the 20th century extended the village considerably. New building took place, particularly around the station, creating a new village focus. In the 1930s development included St Andrew's Way followed by the Village College built in 1938 amongst the trees of the Impington Hall Estate. By the 1960s and 1970s successive phases of development had consolidated the two parishes, the two old village centres being linked by a ribbon of development of varying ages along Impington Lane. Considerable estate development took place in areas such as Clay Street and Greenleas in Histon.
- 10.3.77 In recent years the former Chivers factory site in Histon has been cleared for light industry, residential development and office uses. More recent development in Impington has included infilling in addition to the construction of the Holiday Inn hotel adjacent to the existing A14, the development of the Camways Farm site, the development of Impington Hall Farm, and the Impington Lea Hospital. Histon and Impington represent a settlement where there is little separation between it and the built up part of Cambridge, although the existing A14 provides a dividing line between the two. The road itself is contained within the junction slip roads as it passes the narrow southern end of Impington. The mixture of areas with a characteristic pattern of built form and undeveloped space and areas of typical mixed suburban housing and commercial uses, combined with the limited influence of the existing A14, mean that this sensitivity of this character area is assessed as moderate.

20. North Cambridge

- 10.3.78 North Cambridge, which is located on the northern edge of Cambridge, has been gradually infilled with development over recent years, extending up to the A14 Cambridge Northern Bypass. East of Histon Road is a current area of development at Orchard Park, creating a mixture of uses between King's Hedges Road and the A14, including a hotel close to the Histon junction. This development has included the provision of a widened embankment along the south side of the A14 to allow for its future widening, which has been constructed with steep slopes of strengthened earthworks in order to retain development area. This development has also constructed a 3m to 3.5m high noise barrier alongside the A14, which has two large perspex 'windows' that provide views through.
- 10.3.79 South of King's Hedges Road there are extensive residential estates of various ages, interspersed with open spaces and schools. East of the line of the guided busway is the Regional College, beyond which the large development of Cambridge Science Park extends to Milton Road. This includes several substantial institutional and research buildings, often of distinct appearance, in a heavily planted setting with green spaces and water balancing lakes.
- 10.3.80 East of Milton Road is the Innovation Centre, a recent development of office buildings set amongst planted car parks. East of this the Milton wastewater treatment works extends to the line of the King's Lynn railway and includes various industrial structures and large areas of unused former settling ponds and substantial belts of trees, one of which runs along the north side adjacent to the A14 embankment. There is a large area of railway sidings beside the railway.
- 10.3.81 There are some distinctive buildings, but also some prominent detracting features and the developments are generally typical of their age with little sense of place, hence the landscape sensitivity is assessed as low.

21. Milton

- 10.3.82 Milton is one of the 'inner necklace' villages around Cambridge and lies 5km north of the city centre. Originally on the main Cambridge-Ely A10 road, the village is now bypassed by the new road on its western side, while the existing A14 runs between the village and Cambridge. The river Cam and the Cambridge-Ely railway line lie to the east of the village. The fen and meres on the east of the river were drained by a network of channels and the common lands were enclosed in 1802.

- 10.3.83 The main village settlement is centred on a triangular green, the parish church and Milton Hall. The Hall was built in 1794 and the parkland was laid out to designs by Humphrey Repton. Some early, traditionally built farmhouses and cottages survived a fire in 1735. They are timber framed, plastered, with thatched and plain tiled roofs. The parish church of All Saints stands to the south of the Hall and dates from the 12th century. The 20th century saw substantial growth of housing in Milton with both private and local authority estates up to the 1960s extending the village in most directions. Population doubled in the 1960s with the development of housing estates. Further major growth occurred in the late 1900s, and development has taken place north and south of Butt Lane between the village and the A10 bypass. A Tesco superstore has been developed at the southern edge of the new development near the junction with the existing A14. South Cambridgeshire District Council has developed a country park at the site of Milton Pits, south-east of the village and north of the existing A14.
- 10.3.84 The village now has a compact form with little open space near the village centre. The conservation area does, however, include the attractive parkland setting of the area around the church and Milton Hall. The northern fringe of the village retains a strong rural character where there is still a clear transition from the built-up area of the village to the surrounding countryside.
- 10.3.85 The existing A14 runs past the southern part of Milton village on embankment. The southern part of the village includes the large Tesco store and a range of industrial estates and the western part is made up of extensive housing developments. The historic village centre is some way to the north. The mixture of areas with a characteristic pattern of built form and open space and areas of typical mixed suburban housing, industrial and commercial uses, combined with the existing A14 and A10, mean that the sensitivity of this character area is assessed as low.

Zone of theoretical visibility

- 10.3.86 The Zone of theoretical visibility (ZTV) identifies the extent of land from which the scheme would be visible and has been used to define the study area for the landscape assessment. The ZTV is illustrated on *Figure 10.4*.
- 10.3.87 Four digital ZTV scenarios have been generated to illustrate the extent of scheme visibility. Details of the methodology are provided in *Appendix 10.7*. The ZTV shown on *Figure 10.4 sheets 9 – 12* illustrates the worst case scenario and has therefore been used to inform the study area for the LVIA.
- 10.3.88 The ZTV scenario illustrated on *Figure 10.4 sheets 1 – 4* accounts for the height of high sided vehicles (4m) moving along the scheme in a hypothetical 'bare earth' environment with no intervening screening taken into consideration. This shows that views of the scheme would generally extend up to approximately 5km throughout the study area, although views would be restricted to approximately 1.5km south of Girton interchange and west of Brampton interchange.

- 10.3.89 The ZTV scenario illustrated on *Figure 10.4 sheets 5 – 8* accounts for the height of high sided vehicles (4m) moving along the scheme with screening provided by vegetation and buildings. Views towards the scheme would be significantly less extensive when intervening vegetation and buildings are taken into consideration, contained to approximately 1km in places. The most extensive views would be within areas of open countryside with limited vegetation. Such areas are located to the north of Brampton Hut junction both east and west of the scheme, east of The Offords, east of Hilton and north of Bar Hill.
- 10.3.90 The ZTV scenario illustrated on *Figure 10.4 sheets 9 – 12* accounts for the upmost height of proposed gantries (12m) along the online/offline section of the scheme (excluding Huntingdon where there are no proposed gantries) in a hypothetical 'bare earth' environment with no intervening screening taken into consideration. The extent of visibility would be very similar to that which accounts for high sided vehicles at 4m with no screening elements, and would extend up to approximately 5km throughout the study area. It is this ZTV that has been used to inform the study area because it represents the worst case scenario (i.e. based on visibility of the highest scheme elements and no screening).
- 10.3.91 The ZTV scenario illustrated on *Figure 10.4 sheets 13 – 16* accounts for the upmost height of proposed gantries (12m) along the online and offline sections of the scheme with screening provided by vegetation and buildings. Views towards the scheme would be significantly less extensive when intervening vegetation and buildings are taken into consideration, contained to approximately 1km in places. Again, the most extensive views would be within areas of open countryside with limited vegetation, such as north of Brampton Hut junction both east and west of the scheme, south of the scheme and east of The Offords, south of the scheme and east of Hilton and north of the scheme and Bar Hill.
- 10.3.92 Within Huntingdon the ZTV would largely be contained by the adjacent built forms of the town and, in localised areas, belts of mature existing vegetation. The de-trunked section of the existing A14 immediately to the east of the station would be set in a cutting formed within the existing A14 embankment. The retained elements of embankment either side of the new cutting, together with retained belts of mature vegetation and some new planting, would create an even tighter ZTV for the main elements of that section of the scheme.
- 10.3.93 The existing A14 viaduct is a very prominent feature in the town, particularly in the vicinity of the station, the western end of Mill Common and along Brampton Road on the approaches to the town centre. Although the scheme would introduce lighting columns at the de-trunked existing A14/Pathfinder Link junction and along the de-trunked existing A14 which would be visible from parts of Portholme Meadow, and at the Views Common roundabout, it is clear that, with the removal of the viaduct, the scheme would have a reduced ZTV in Huntingdon compared with that of the existing A14.

Existing views of the scheme

- 10.3.94 This section describes existing views from residential properties, businesses, public rights of way, and public receptors towards both online and offline sections of the scheme and within Huntingdon. Photographs of existing views from a selection of viewpoints are included on *Figure 10.5*. The location of photograph viewpoints is illustrated on *Figure 10.7* and *Figure 10.8*. The sensitivity of individual visual receptors has been assessed in accordance with *Table 10.2* and is recorded in *Appendices 10.2 – 10.5*.

Alconbury to Fen Drayton

- 10.3.95 The A1 between the Brampton Hut junction and Alconbury largely runs through open arable landscape, with some limited belts of tree and shrub vegetation. There are very few visual receptors west of the A1 in this section, although there are open views towards the existing A1 from Weybridge Farm from slightly elevated land to the west. Views towards the existing A1 from Huntingdon Research Centre are well contained by a mature belt of trees. A significant extent of mature vegetation east of Brooklands screens views of the highway. A section of mature vegetation situated between the layby and the main carriageway of the A1, along with other narrow belts of existing vegetation, screen views towards part of the A1 from a bridleway running east from the A1 adjacent to a section of the Alconbury Brook and from Lodge Farm and other public rights of way situated further to the east. However, sections of moving traffic and lighting columns are visible from all of these receptors so that the alignment of the existing A1 is clear. From Brooklands Farm intervening landform and existing vegetation screen extensive views of the existing A1, although a section of the highway, moving traffic and lighting columns are visible close at hand. From Alconbury, existing views of the section of the A1 subject to the scheme are largely restricted by intervening built development and mature vegetation.
- 10.3.96 The new A14 from Ellington would be routed through agricultural land adjacent to the existing A14 and A1 close to Brampton Hut services and past isolated properties such as Rectory Farm and Brampton Lodge, which have partial views beyond their garden vegetation across the open fields towards the trees alongside the A1. The Huntingdon Recycling Centre and adjacent properties are adjacent to the existing A14 with close views of the route of the scheme. Brampton Hut services are adjacent to the existing A14 at Brampton Hut junction, with partial views over the arable fields behind through which the new A14 would run. The junction and the services have highway lighting. Grafham Road Cottages (to be demolished) have views over open fields to the south and west, with the A1 prominent to the east. There are footpaths, a bridleway and a byway within the area that afford open views across the fields.
- 10.3.97 Properties in the western and southern edges of Brampton, other isolated properties and public footpaths have views, usually filtered through existing garden and roadside planting, towards the open arable fields through which the new A14 would run beyond the existing A1, with some views also including the gentle slope up to Brampton Wood beyond.

- 10.3.98 The A1 skirts the western edge of Buckden travelling north to south and includes highway lighting as far north as the Buckden Road bridge. The A1 is apparent in views northwards from properties on the edge of the village. Properties on Buckden Road and Brampton Road, near the Buckden landfill site, are currently screened from the A1 traffic. They have filtered front and rear views of the fields along the route, which often include parts of the nearby business uses. Lodge Farm (Buckden) has open views of the fields along the route, with the landfill site beyond, as well as views over the Ouse valley.
- 10.3.99 The route crosses the river Great Ouse and its floodplain, which is well vegetated and a tranquil area. It is enjoyed as a recreational resource for water activities and walking. From the Ouse Valley Way beside the river there are open and filtered views of the scheme, where it would run across the valley and the flooded gravel pits. These views are principally to the east, being often limited by the hedgerow along the west side of the path. There are also views across and along the valley floodplain from properties in Offord Cluny and in Buckden Marina. There are expansive views over the route from Offord Road. The East Coast mainline railway travels north to south passing between Buckden Marina and Offord Cluny and is a prominent linear feature in views across the arable landscape east of the floodplain, as well as a moving viewpoint along the valley.
- 10.3.100 Between Offord Cluny and Ermine Street, there are existing open views from farms across the large, gently undulating arable fields with only occasional blocks of planting or hedges with individual trees. Views are more enclosed near Ermine Street by substantial hedgerows and belts of trees. East of Ermine Street, there are open views of the arable fields through which the route would run from isolated farms and buildings and from bridleways and footpaths, along with filtered views from Wood Green Animal Shelter.
- 10.3.101 There are filtered views from properties in the northern parts of Hilton to the south of the route, including views from adjacent bridleways and footpaths, looking over the low-lying arable fields and broken up by the substantial hedgerows along the local roads. The parkland around Conington Hall north of Conington screens many potential views towards the route and forms a backdrop to views across the shallow valley landform from houses on the southern outlying parts of Fenstanton. There are some filtered views available from properties in the east side of Conington and open views from the footpaths across the arable fields through which the scheme would run. Approaching Fen Drayton, the existing A14 becomes a more apparent part of the scene in views across the fields from the east end of Fenstanton.

Fen Drayton to Milton

- 10.3.102 On the southern edge of Fen Drayton, properties and a public footpath have views across fields towards the existing A14 traffic. Buckingham Business Park, Trinity Foot public house (to be demolished), Friesland Farm and Cambridge Services have close views of traffic using the existing A14, overbridge and roundabout. There is lighting on the roundabout, in the service area and business park.

- 10.3.103 To the north of the existing A14, Hill Farm and Hill Farm Cottages are close to the road and have clear or filtered views south to the existing A14. There are clear or filtered views northwards to the traffic using the existing A14 from properties on the northern edge of Lolworth and from public footpaths, bridleways and isolated properties located in the surrounding area.
- 10.3.104 Properties, footpaths, the hotel and the golf course on the northern edge of Bar Hill have views to the existing A14, the junction overbridge and lit roundabout; David Ball industrial premises has direct access off the existing A14 and is adjacent to the road with close open views of traffic.
- 10.3.105 Cambridge Crematorium, Hackers Fruit Farm and Catch Hall Farm and the nearby houses all have direct access off the existing A14 and are adjacent to the road with close open views of traffic.
- 10.3.106 To the north of Dry Drayton, surrounding properties and receptors have a view of the existing A14, related overpasses and slip roads. Some properties on the edge of Madingley have filtered views across fields to the existing A14 and Girton interchange, which has highway lighting.
- 10.3.107 Residential properties, footpaths and other receptors on the western edge of Girton have views across adjacent fields towards the existing A14 and Girton interchange. Some west-facing receptors also have filtered views of traffic to the west. Grange Farm to the north of the junction has filtered views to A14 traffic, largely screened by trees, although Grange Farm Cottages have close, open views of the existing A14. Properties south of the existing A14 have filtered views across fields to the A14. The existing A14 divides Girton (partly in cutting), where some properties, predominately on Weavers Field, are close to the A14. Existing vegetation on garden boundaries and on the highway cutting slopes filters views of the road and its traffic, but highway lighting remains visible.
- 10.3.108 Properties on the southern edge of Impington have filtered views to the Histon junction roundabout and its highway lighting. Existing vegetation filters views to traffic on the existing A14 from the western edge of Impington and properties south of the existing A14 on the western edge of the built up area of Cambridge.
- 10.3.109 The northern edge of Cambridge consists of a mix of housing, business and science parks. Views of the existing A14 Cambridge Northern Bypass, which is generally on embankment throughout this section, are largely screened by an existing noise barrier. The Milton junction has highway lighting.

Huntingdon

- 10.3.110 On the southern edge of Huntingdon around the northern periphery of Mill Common a number of properties, both residential and commercial and including some that are listed, have relatively open views across Mill Common looking towards the existing A14 and its heavily vegetated embankments to the south. The upper floors of residential properties along the southern edge of the Stukeley Meadows area also have views of the existing A14 and its heavily vegetated embankments to the south and west. Views Common is also visible against a backdrop of mature trees with the upper parts of development in Hinchingsbrooke visible beyond.
- 10.3.111 In the Hinchingsbrooke area there are views of adjacent development as well as avenues of trees and shelterbelts. The privately owned green spaces around Hinchingsbrooke School and the Cambridgeshire Constabulary HQ, dotted with mature trees give many views in the area a parkland character.
- 10.3.112 The existing A14 viaduct and its associated traffic is a substantial landmark feature across Brampton Road and the East Coast mainline railway and detracts from the visual quality of these approaches to the town. Other notable features include a water tower to the north east of Brampton Road in the vicinity of the fire service headquarters and Hinchingsbrooke House. The latter forms a striking feature beyond floodplain meadows and parkland in views from trains approaching Huntingdon from the south.

10.4 Predicted impacts

- 10.4.1 The scheme would have both adverse and beneficial effects on landscape character, for example through removal of characteristic landscape elements and the introduction of uncharacteristic elements that contrast with or are incongruous in the context of the existing landscape character.
- 10.4.2 Changes in views would also give rise to adverse and beneficial visual effects through obstruction in views, alteration of the components of the view and through the opening up of new views by the removal of screening. It is likely that changes in view would be experienced from residential properties, businesses, public rights of way and public receptors.
- 10.4.3 *Table 10.10* provides a summary of likely landscape and visual effects during construction and operation, indicating temporary, permanent, direct and indirect effects.

Table 10.10: Predicted landscape and visual impacts

Direct temporary construction effects (programmed to take four years in total)	
Description of likely adverse effects	
Landscape	<ul style="list-style-type: none"> • vegetation removal including some trees with TPO status along sections of highway to be widened, within the soft estate along the offline section of the scheme, in the vicinity of borrow pits and within Huntingdon; and • disruption to landform during creation of environmental bunds and excavation of borrow pits.
Visual	<ul style="list-style-type: none"> • views of heavy construction plant and materials, soil storage areas, construction compounds and haul routes; • views of major earthworks to raise sections of the existing highway, to construct the offline section of the scheme, to construct environmental bunds and to excavate borrow pits, drainage lagoons and ecological ponds; • views of temporary traffic management, signage and lighting; and • large scale plant such as cranes etc. involved in the demolition of the A14 viaduct in Huntingdon and for the construction of major overbridges and junctions.
Indirect temporary construction effects	
Description of likely adverse effects	
Landscape	<ul style="list-style-type: none"> • disruption to land use, landscape pattern and landscape character along the online/offline sections of the scheme as a result of major earthworks and construction activity and the presence of heavy construction plant and materials, soil storage areas, construction compounds and haul routes; • disruption to the character of localised areas of Huntingdon as a result of construction activity and the presence of heavy construction plant, particularly in the vicinity of the viaduct during removal; • effects on designated areas and features including Huntingdon Conservation Area, listed buildings and landscape planning policy areas; and • reduced tranquillity, particularly along the offline section between Brampton interchange and Fen Drayton, and within Views Common and Mill Common in Huntingdon.
Direct permanent effects both short (1 – 14 years post scheme completion) and long term (15 years onwards post scheme completion)	
Description of likely adverse effects	
Landscape	<ul style="list-style-type: none"> • vegetation removal including some trees with TPO status along sections of highway to be widened, along the offline section of the scheme, in the vicinity of borrow pits and within Huntingdon; • intensification of highway infrastructure with increased width of traffic on sections of widened highway, the introduction of major highway infrastructure along the offline section of the scheme, as well as major junctions and bridge structures; • increased dominance of highway infrastructure, with introduction of new sign gantries, variable message signs (VMS), CCTV cameras/masts and lighting columns; • changes to landform with environmental bunds and extensive borrow pits; and increased light spill and impacts on character of landscape during darkness in localised areas around junctions.

Visual	<ul style="list-style-type: none"> views of major highway infrastructure including major junctions and bridges, as well as new sign gantries, VMS, CCTV cameras/masts and lighting columns; views of other scheme elements including environmental bunds, noise barriers, drainage lagoons, lakes in borrow pits and ecological mitigation areas and ponds; and views of lighting columns/light spill in localised areas around junctions.
Indirect permanent effects both short (1 – 14 years post scheme completion) and long term (15 years onwards post scheme completion)	
Description of likely adverse effects	
Landscape	<ul style="list-style-type: none"> changes to landscape character throughout the scheme, with increased influence and dominance of highway infrastructure and density of traffic; changes to land use, landscape pattern and landscape character as a result of the alignment of the offline section of the scheme and extensive borrow pit areas; effects on designated areas and features including Huntingdon Conservation Area, listed buildings and landscape planning policy areas including the 'openness' of localised parts of the green belt at Girton interchange and south of Cambridge Crematorium; and reduced tranquillity, particularly along the offline section between Brampton interchange and Fen Drayton, and within Views Common and Mill Common in Huntingdon.
Indirect permanent effects both short (1 – 14 years post scheme completion) and long term (15 years onwards post scheme completion)	
Visual	<ul style="list-style-type: none"> more open views of traffic on existing highways in the short term as a result of vegetation removal; and views of traffic movement along sections of the scheme where it is not obscured within cutting or by environmental bunds.
Description of likely beneficial effects	
Landscape	<ul style="list-style-type: none"> extensive areas of mitigation planting and ecological planting would establish to enhance landscape character, and provide landscape pattern and structure; and removal of the viaduct within Huntingdon would enhance local townscape quality.
Visual	<ul style="list-style-type: none"> the extent of some existing views of highway infrastructure and traffic flow is likely to be reduced with environmental bunds, noise barrier and mitigation planting (once it is established); and reduction in views of traffic along sections of de-trunked A14 and other local roads.

Mitigation measures during construction

- 10.4.4 Mitigation during construction would be carried out in accordance with the *Code of construction practice (CoCP) in Appendix 20.2*.
- 10.4.5 The compound and soil stockpile areas would be prepared by stripping the topsoil and storing in bunds around the perimeters, such that subsequent activities in these areas would be at least partially screened. Some parts of the larger compounds and some construction and demolition works associated with major structures would also be contained within compound screen fencing, for security reasons, which would also act as a visual screen.

- 10.4.6 Where environmental bunds are proposed as part of the permanent works, these would be constructed as early as is practicable to provide screening for the construction work.
- 10.4.7 The scheme includes the retention of areas of existing vegetation in many locations, including the temporary works areas, which would be protected during construction in accordance with the CoCP. A native belt of tree and shrub vegetation enclosing Brampton Hut Services is covered by a TPO. The adjacent A14 and Ellington junction embankments have been designed to retain the trees subject to TPO. A large mature oak located near to Grafham Road Cottages would be surrounded by embankments for the proposed Grafham Road bridge and property access. However the scheme has been set far enough back to allow for adequate root zone protection in accordance with *BS5837: 2012 Trees in relation to design, demolition and construction* as defined in the CoCP.
- 10.4.8 Where existing vegetation would need to be cleared, the adjacent retained vegetation would be assessed for its resultant appearance, viability and stability and any arboricultural works undertaken as required.
- 10.4.9 Where land would be used temporarily, such as for compounds, haul roads, regrading areas, it would be returned to a condition suitable for the continuation of its original use. This would include the replanting of hedgerows and trees, where these have had to be removed.

Mitigation measures during operation

- 10.4.10 Proposed landscape mitigation is illustrated on *Figure 3.2*. The principal means of mitigating adverse impacts has been to avoid or reduce them in the first place by the design of the highway alignment and by the choice of junction or bridge arrangements. In particular, the river Great Ouse viaduct has been carefully designed to reduce impacts on the Great Ouse valley and to support the views of key stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An options design process has been carried out, and a design has been generated which aims to minimise visual intrusion and to maintain views along the valley floor.
- 10.4.11 The landscape proposals have been designed to best utilise the land required for the construction of the scheme to provide mitigation, together with additional land where this is considered essential for the required mitigation. Highway elements, such as drainage lagoons, have been integrated into the overall layout of the scheme.
- 10.4.12 Landscape mitigation includes:
- environmental bunds, where practicable and appropriate, to help limit views towards the scheme and of traffic flow;
 - the rounding of crests and toes of embankments to achieve better integration with the surrounding landform, where space and material are available;
 - the use of false cuttings to screen traffic and headlights in sensitive locations;

- limiting visual intrusion of proposed main road signs and gantries through adjustment of location where practicable;
- minimising the impact of road lighting through careful placement where such a system is deemed essential. The use of modern, controllable light sources with sharp cut-off properties, coupled with dynamic systems of operation, would reduce the effect of lighting on the surrounding environment;
- native tree and shrub planting on and adjacent to highway earthworks to create woodlands, copses and shelterbelts in order to break up the scale of the road, screen structures, traffic and lighting and to help integrate the scheme into the existing landscape pattern;
- more formal planting in Huntingdon where avenue tree planting set in broad grassland verges, some lined with hedges would reflect the historic character of parts of the town;
- use of paving materials, street furniture and fencing to reflect the character of existing materials in the area of Hinchingsbrooke House and Mill Common;
- use of larger planting stock where appropriate (for example within Huntingdon town centre) to provide immediate landscape effect;
- areas of species rich grassland at locations where conditions are suitable for their establishment, to provide seasonal interest and increase local biodiversity;
- retention of some open views through breaks in the planting to help create variety and a sense of place for drivers, where practicable;
- use of hedgerows where appropriate, to link into existing field boundary planting to provide screening and integration into the local pattern, as well as connection of existing wildlife corridors;
- structural planting within and surrounding borrow pits to integrate with the wider landscape and the scheme; and
- restoration of the borrow pit north-west of Boxworth to agricultural farmland.

10.4.13 These principles would be taken forward into detailed design along with guidance including the *Cambridgeshire Landscape Guidelines* (Cambridge County Council, 1991). The design would seek to reflect the variations in local landscape character types and areas defined in *Table 10.9*, for example through the use of different plant mixes. Consideration would also be given to the use of appropriate species in the event of extreme conditions cause by climate change, such as flooding or drought, at the detailed design stage.

10.4.14 A five year aftercare period for all the soft environmental features of the scheme would be included as part of the construction contract requirements. Thereafter, the soft estate would be maintained by the Highways Agency through its managing agents.

10.5 Significance of effects

Landscape effects: loss of vegetation

- 10.5.1 This section identifies major areas of vegetation that would be lost during construction to implement the scheme. Indicative vegetation loss is illustrated on *Figure 3.4*, although the precise extent of vegetation loss would be subject to detailed design. Loss of vegetation would cause landscape effects during construction and would also be permanent, although proposed planting would help to restore the landscape fabric in the long term (from 15 years post planting). The significance of effect caused by vegetation loss is incorporated within the section on landscape effects: landscape character, in this chapter, below.
- 10.5.2 There are several individual and groups of trees that have TPOs in place and which would be affected by the scheme. Their location is illustrated on *Figure 3.4* and key areas of TPO to be affected are summarised below:
- A middle-aged oak subject to TPO just off Brampton Road near to Buckden landfill site would be removed to construct the southern A14 embankment.
 - South of Wood Green Animal Shelter east of Ermine Street, the scheme would sever a belt of mostly oak trees that are subject to a TPO.
 - The periphery of a substantial tree and shrub belt covered by a TPO north-east of Lolworth and Grange Farm would be removed just south of the existing A14 to accommodate the widened scheme. The realignment of Robins Lane would result in potential loss of part of a group TPO.
 - A section of trees along the northern periphery of Menzies Golf Club is designated as TPO, and some loss would be required to accommodate the A14 widening.
 - Two linear belts of trees running south-west to north-east through Menzies Golf Club are subject to TPOs. The scheme would not affect the western tree belt, but would require the removal of the northern most extent of the eastern tree belt.
 - Three individual trees covered by TPO located immediately south of the existing A14 (one tree north-west of Oakington Road and two trees in the vicinity of Catch Hall) would be removed to accommodate the scheme widening.
 - A mature oak south of the A14 and west of The Avenue would be removed at the foot of the proposed embankment. The local access road would sever a section of a linear Group TPO containing a number of mature oak trees both sides of The Avenue.
 - Part of a group TPO on the edge of Girton College grounds along Huntingdon Road would be removed, along with one TPO tree west of Girton Road.

- In Huntingdon a number of individual trees and groups of trees are protected by TPOs, and the full extent of the scheme proposals in the town also fall within the Huntingdon Conservation Area. Trees that would be removed by the scheme include: trees in the historic shelterbelt along the south-west side of Views Common which would be punctured by the proposed Views Common Link; trees along Hinchbrooke Park Road at the junction of this road and the proposed Views Common Link; trees at the junction of Hinchbrooke Park Road and Brampton Road; trees in the station car park and dense woodland vegetation on the existing A14 embankments that would be removed as part of the scheme.

10.5.3 There are also various other locations where there would be significant loss of existing vegetation, which would change the landscape pattern. These locations are indicated on *Figure 3.4*. Most of the vegetation loss would be from the existing vegetation alongside the A14 and A1 and within the trunk road junctions, and there would be losses from the existing hedgerows alongside the local roads, where these would be realigned to cross the A14. There would also be loss from several locations away from the existing road network. The principal areas of vegetation loss would be:

- Along the east side of the A1 near Brampton, the existing intermittent hedgerow would be removed over a distance of about 1.4km, in order to accommodate the proposed environmental bund. This includes scattered oak and ash trees and some lengths of more substantial hedgerow.
- The proposed viaduct and embankment across the river Great Ouse floodplain would remove areas of floodplain grassland and tree and shrub field boundaries, including some willows on the edges of the flooded gravel workings.
- Several lengths of native hedgerow field boundaries and parts of small copses would be removed to accommodate the scheme between Brampton interchange and Offord Road.
- The existing native hedgerows along B1040 Potton Road and Hilton Road would have lengths removed as the scheme passes through them.
- A significant amount of vegetation would be removed to accommodate the expanded Swavesey junction including a large proportion of 'Down Spinney'.
- Existing highway and amenity planting would be removed to accommodate the proposed junction improvements at Bar Hill.
- Vegetation would be removed along the northern periphery of Menzies Golf Club, which currently provides visual screening of the existing A14 and traffic flow from the golf course.

- A large amount of vegetation would be removed to accommodate the expanded Girton interchange, including 'Bulls Close' woodland block. Almost all of the existing intermittent vegetation along the embankment slopes of the A14 Cambridge Northern Bypass would need to be removed to accommodate the widening.
- Some discontinuous hedgerows would be removed within the borrow pits, but significant hedgerow and copse features within the borrow pits would be retained.

Landscape effects: landscape character

- 10.5.4 There are no landscape designations within the study area that have been defined because of their level of tranquillity. However the scheme would reduce tranquillity along the offline section of the scheme between Brampton interchange and Fen Drayton, particularly in areas that are currently more rural and remote such as the Ouse Valley. The scheme would also slightly reduce tranquillity within Views Common and Mill Common in Huntingdon. It is not anticipated that the level of overall tranquillity along the online sections of the scheme from Alconbury to Brampton interchange and from Fen Drayton to Milton would be significantly affected because existing traffic movement on these highways already severely affects tranquillity. Tranquillity would potentially be improved along the de-trunked section of the scheme, where it is anticipated that there would be a reduction in traffic flow.
- 10.5.5 The following section has regard for loss of vegetation as detailed above, and describes and assesses impacts on the landscape character areas identified on *Figure 10.3* during construction and during operation in both the short and long term.
- 1: Ellington Brook Farmland*
- 10.5.6 Much of the construction activity and excavation of drainage lagoons would be focussed along the existing A1 corridor. However construction of the local access road to Ellington junction, excavation of the borrow pit north of the existing A14, and the movement of heavy plant along the haul route (existing track) from Woolley Road to the borrow pit would cause noticeable damage to the landscape character. There would be a moderate adverse impact on this area of low sensitivity and a slight adverse effect during construction.
- 10.5.7 The scheme would involve some loss of the existing highway vegetation along the A1 and north of the existing A14. The general relationship of the road to the landscape would change little, but the vegetation loss would make the additional highways, signs, lights and the movement of traffic more apparent as elements in the landscape pattern, adding noticeable and uncharacteristic features. The flooded borrow pit would be set within the context of flooded sand and gravel pits immediately to the west. There would be a moderate adverse impact on this character area of low sensitivity in year 1. This would have a slight adverse effect.

10.5.8 Once the planting has become established, it would soften the form of the new highway earthworks and borrow pit, and tie them into the existing pattern of hedgerows, copses and woodland, including the existing planting around Brampton Hut Services and Huntingdon Recycling. The proposed belt of planting extending from Huntingdon Recycling to Brampton Hut junction would contribute positively to the landscape pattern and would help integrate the scheme into the existing landscape. Whilst set within the context of existing major infrastructure, the additional elevated sections of road, sign gantries and lighting would slightly exacerbate the influence of highway infrastructure on the landscape. There would be a minor adverse impact on this character area of low sensitivity by year 15 and a slight adverse effect.

2: Brampton Wood to Buckden

10.5.9 There would be very minor disruption during construction, while the hedge planting to Brampton Wood to accommodate the proposed dormouse link would be carried out. During construction the magnitude of impact would be negligible adverse on this area of low sensitivity, and the significance of effect would be slight adverse. In winter year 1, when the planting would be un-established, the magnitude of impact would be no change and the significance of effect would be neutral. In summer year 15, the planting would enhance the landscape pattern and the magnitude of impact would be minor beneficial. The significance of effect would be slight beneficial.

3: Brampton Farmland

10.5.10 There would be significant disruption to the landscape during construction, with extensive excavation of borrow pits and construction of major new infrastructure at Ellington junction and Brampton interchange. Although haul routes would generally be in close proximity to the existing infrastructure and the new alignment, there would be numerous soil storage areas and compound sites within this landscape character area. There would be large scale damage to the existing character and the addition of numerous uncharacteristic, conspicuous elements. The magnitude of impact would be major adverse impact on this character area of low sensitivity during construction. This would have a moderate adverse effect.

10.5.11 West of Brampton, the scheme would substantially widen the footprint of the existing highway network, increasing its urbanising and enclosing influence on the landscape. The scheme would introduce new elevated sections of highway infrastructure to the landscape, including the new Ellington junction, the A1 Brampton interchange bridge west of Brampton and bridges at Brampton interchange. Ellington junction and the A1 Brampton interchange bridge would be set within the context of the existing highway infrastructure of the A1, the A14 and Brampton Hut junction. Brampton interchange would be partially integrated into the gentle slope of the local topography as it falls from Brampton Wood to Brampton.

10.5.12 Extensive borrow pits filled with water west of the A1 and between RAF Brampton and Brampton interchange would significantly change the character of the currently arable landscape.

- 10.5.13 The environmental bunds alongside the widened A1 and the new A14, together with the extended embankment to take Grafham Road over the A14 and connect to Park Road bridge, would create a linear pattern of major highway earthworks extending from Brampton Hut junction to Brampton interchange.
- 10.5.14 The scheme would require the removal of the existing roadside vegetation along the east side of the A1 and some along the west side, and some lengths of intermittent hedgerows. Although most of the land required would be arable fields, the vegetation loss would make the highways, signs, lights, borrow pits, drainage lagoons and the movement of traffic more apparent as main elements in the landscape pattern, such that they would form a prominent and uncharacteristic group of features, with a major adverse impact on this character area of low sensitivity in year 1. This would have a moderate adverse effect, as the scheme would be at odds with the local pattern and landform.
- 10.5.15 Once the mitigation planting has become established, it would soften the form of the new highway earthworks, environmental bunds and borrow pits, and tie them into the existing pattern of hedgerows, copses and woodland, including the existing vegetation around Brampton Hut Services and Huntingdon Recycling Centre. A broad belt of planting extending from New Ellington junction past West End, Grafham Road and Brampton interchange to Buckden Road would help integrate the scheme into the landscape and slightly reduce the existing influence of roads on the local character in the long term.
- 10.5.16 The elevated sections of road, the sign gantries and lighting at Ellington junction, south of Brampton Hut junction and at Brampton interchange would remain as noticeable and uncharacteristic elements, with a moderate adverse impact on this character area of low sensitivity by year 15. This would have a slight adverse effect.
- 10.5.17 Brampton would not be physically affected by the scheme. The scheme would have an influence on the landscape setting of the western part of the village. Whilst the landscape setting of the western side of Brampton would benefit from the screening effect of an environmental bund along the A1, this would also have an enclosing effect on the village and would separate it from the more open landscape to the west of the highway corridor. The setting of the south western part of RAF Brampton would also be affected by the proximity to the borrow pit and Brampton interchange.
- 4: North Flowing Ouse Valley Floodplain*
- 10.5.18 During construction there would be major disruption to a localised part of this character area, with major earthworks and construction, haul routes and the presence of heavy plant. This would cause a major adverse impact within this character area of moderate sensitivity and a large adverse effect during construction.

- 10.5.19 The scheme would introduce a sequence of new embankments, the river Great Ouse viaduct and the East Coast mainline bridge along the line of the new A14 as it cuts across the river floodplain. To the west of the river, the new earthworks would be close to the southern edge of the raised landform of Buckden landfill and would continue across an area previously excavated for gravel. To the east of the river, the scheme would cross the floodplain on a double viaduct, supported by an island embankment with raised drainage attenuation pond, before continuing to a further embankment and bridge over the East Coast mainline railway and its raised power supply. The latter requires an embankment of substantial height that would be counter to the landform of the shallow valley. Some of the existing partial views along the valley floor would be curtailed, although others would be opened up due to the loss of some of the existing vegetation along the river bank and beside the former gravel pits. The viaduct and the traffic on the A14 would be prominent and uncharacteristic features in the landscape, with a major adverse impact within this character area of moderate sensitivity in year 1. This would have a large adverse effect on this landscape character area, as the new structures, earthworks, signs and traffic would be at considerable variance with the landform, scale and pattern of the landscape, particularly as this degree of change would continue eastwards into the edge of the adjacent character area.
- 10.5.20 Once the mitigation planting has become established, this would soften the engineering form of much of the viaduct and new highway earthworks, restore the vegetated character to the new edges of the former gravel pits and help to integrate the scheme into the generally well vegetated and partially enclosed character of the floodplain landscape. Whilst this would filter and reduce the extent of visibility of traffic on the viaduct, both the viaduct and its traffic would remain as noticeable and uncharacteristic features. The island and drainage attenuation pond would still be out of character with the landform of the shallow valley and the space under the viaduct and immediately to either side would remain as a maintenance access area. There would still be a moderate adverse impact within this character area in year 15. This would still have a large adverse effect, as it would remain at considerable variance with the scale and landform of the landscape, although the substantial areas of woodland planting within the valley and across the fields to the east would not be out of character and would mask the detail of the embankments, drainage lagoons and much of the movement of traffic.
- 10.5.21 Offord Cluny and Buckden Marina would not be physically affected by the scheme, but there would be an adverse influence on their landscape settings.

5: East Flowing Ouse Valley Floodplain

- 10.5.22 Impacts on this landscape character area are not assessed because it would not be physically directly affected by the scheme. It is, however, predicted that there would be a significant reduction in traffic flow along the de-trunked A14 and a substantial reduction in lorry traffic, which would potentially cause beneficial effects on the landscape character as well as on views from within the area (refer to *Appendix 10.6*).

6: Huntingdon

- 10.5.23 The influence of the scheme within this character area varies depending on the location and the types of change being proposed and it has been considered in the three town character 'sub areas' (described in the local landscape character and sensitivity sub-section, above) and illustrated on *Figure 10.3*).
- 10.5.24 During construction there would be large scale damage to the existing character of Views Common with the construction of the Views Common roundabout and Link Road and the removal of a substantial section of the existing A14 embankment in the common. The character of Mill Common would be similarly affected through the construction of the Pathfinder Link and works to the de-trunked section of the A14. Construction activity in the commons would also affect the setting of nearby listed buildings and the Huntingdon Conservation Area.
- 10.5.25 The setting of the station listed building would be affected by works associated with the construction of the new station access roads and the demolition of the A14 viaduct.
- 10.5.26 The construction activity would introduce numerous uncharacteristic, conspicuous elements to the area including the movement of heavy plant, the introduction of construction compounds, lighting, security fencing and other paraphernalia. The demolition of the viaduct and removal of its embankments would involve particularly large scale machinery and cranes. There would also be exposed earthwork 'scarring' to areas of existing common grassland.
- 10.5.27 The magnitude of construction impacts would be major adverse on all the town character sub-areas. The sensitivity of the sub-areas varies from moderate to high and it is judged that the significance of landscape effects during construction would be large adverse for all the sub-areas.
- 10.5.28 Operational landscape effects for the three town character sub-areas are considered separately below:

- 10.5.29 Hinchingsbrooke and Central Part of Views Common: In this area there would be adverse impacts from the addition of the Views Common roundabout, which would be elevated on embankment and include lighting in a previously unlit area, and the Views Common Link (which is unlit). The link road would pass through a mature shelterbelt along the south west side of Views Common and the existing privately owned green space between the Hospital and the Cambridgeshire Constabulary Headquarters, both remnant features of the historic Hinchingsbrooke House estate. Mature trees and existing roadside vegetation would also be lost at the junctions between the Views Common Link and Hinchingsbrooke Park Road and Hinchingsbrooke Park Road and Brampton Road. The section of the existing A14 embankment to the east of the Views Common roundabout would be removed as part of the scheme. While this would result in the loss of extensive existing embankment vegetation it would also extend the area of grazing land within the common and reduce severance of the common caused by the existing A14.
- 10.5.30 The new roundabout and link road would be at odds with the scale, appearance and cultural aspects of the landscape and adversely affect historic landscape patterns. The introduction of new highway infrastructure in the existing privately owned green space together with the loss of existing landscape features would in part be offset by the benefits of the removal of the existing A14 embankment. In year 1 this would cause a major adverse impact in this high sensitivity landscape resulting in large adverse effects. By year 15, mitigation planting would be established and the avenue tree planting would contribute towards the historic parkland character of the area. The area of removed embankment would also be fully established as part of Views Common. The scheme impacts would therefore lessen slightly to moderate adverse and result in moderate adverse effects.
- 10.5.31 Station Environs: In this area there would be localised direct benefits from the removal of the existing A14 viaduct, embankment and sign gantries, particularly for the landform and scale of the landscape in and around the station and along Brampton Road and the nearby parts of the open land of Mill Common and Views Common. There would be no encroachment into either common in this area. This removal of prominent and uncharacteristic elements of the existing landscape would be a major beneficial impact on this area of moderate sensitivity in both year 1 and year 15. This would allow some sense of quality to be restored, which would fit well with the landform, scale and pattern of the landscape with large beneficial effects.

- 10.5.32 Eastern Part of Mill Common: There would be adverse impacts in this area from the addition of the Pathfinder Link and associated embankments, lighting and other highway infrastructure. The new link road would have an urbanising effect on the 'pastoral' character of the common, be at odds with the scale, appearance and cultural aspects of the landscape and reduce the extent of the privately owned green space of Mill Common. These impacts would be exacerbated by the loss of vegetation on the existing A14 embankments where a new junction would be formed between the Pathfinder Link and the de-trunked A14 and lighting columns introduced along the de-trunked A14 which would be visible above existing vegetation and proposed planting. The overall result would be major adverse impacts in both year 1 and year 15 on the eastern part of Mill Common, a landscape of high sensitivity, which would have large adverse effects.
- 10.5.33 In addition to the above effects the scheme is likely to lead to reductions in traffic level on the Huntingdon inner ring road, especially along Nursery Road, Riverside Road and Castle Moat Road, as well as along George Street and on both road bridges over the river Great Ouse. The road network cuts across the grain of the town and runs through a sequence of ill-defined spaces, hence this change would have only a negligible beneficial impact on the character. However, there would be potentially beneficial effects in the older and narrower streets, such as George Street, or where open spaces abut the road, such as the Town Park by Nursery Road, the park between Riverside Road and the river Great Ouse and the adjacent area by the old bridge and Huntingdon Castle.

7: Godmanchester

- 10.5.34 Impacts on this landscape character area are not assessed because it would not be physically directly affected by the scheme. However, it is predicted that there would be a significant reduction in traffic flow within the town, as well as along the existing A14 to the north and the A1198 to the east. The principal benefits would be along The Avenue and Cambridge Street. All of these roads have an enclosed character, from the tree planting along The Avenue or from the closely spaced buildings along the other roads, many of which stand at the back of the footway. High proportions of the buildings are listed and are within the conservation area. Traffic currently has a strong influence on the perception and enjoyment of these urban spaces and the predicted reductions in traffic would potentially cause beneficial effects on the landscape character as well as on views from within the area (refer to *Appendix 10.6*).

8: Offord Road to Wood Green Farmland

- 10.5.35 Construction traffic would be restricted to existing highways and the scheme footprint. Soil storage areas would be situated at intervals along the scheme alignment, with particularly extensive areas and a site compound concentrated around Ermine Street junction. These features in addition to construction activity and major earthworks for the construction of over bridges and environmental bunds would cause large scale damage to the existing landscape character. This would cause a major adverse impact on this character area of low sensitivity and a moderate adverse effect during construction.

- 10.5.36 The scheme would cross this landscape character area partly on embankment to the east of the East Coast mainline railway and then in a long cutting, apart from a short embankment, with screen mounds, to the east of Silver Street. These two parts of the scheme would affect the landscape in different ways.
- 10.5.37 The embankment from the railway bridge to Offord Road would cut across the open flowing slope of the landform and would be extended by the substantial embankment needed for the crossing for Offord Road and by the environmental bunds, creating a new skyline when seen from the south. The movement of traffic would be locally prominent. There would be no significant loss of vegetation from this open arable landscape.
- 10.5.38 This addition of prominent and uncharacteristic elements would cause a major adverse impact on this character area of low sensitivity in year 1. This would have a moderate adverse effect, as the scheme would be at odds with the local pattern and landform. Once the mitigation planting has become established, this would soften the slopes of the new highway earthworks and create a well treed area around Offord Road bridge and the adjacent approach to the railway bridge.
- 10.5.39 This scale of planting would not be inappropriate within this character area as a whole, but would remain uncharacteristic on this open slope of Offord Hill, particularly when seen from the south, with moderate adverse impact on this character area of low sensitivity in year 15. This would have a slight adverse effect.
- 10.5.40 The cuttings and environmental bunds to the east would be deep enough to conceal the movement of traffic along most of this part of the route, although the tops of high sided vehicles would be apparent in some places, as would the tops of gantry and message signs. The gently curving alignment of the cutting would avoid it being seen as an open notch in the local skylines.
- 10.5.41 Silver Street Bridge would require a low embankment because the A14 would be in cutting. The possible incorporation of a green bridge at Silver Street has been reviewed as a design option but was not considered essential landscape mitigation because this is an area of low landscape value and sensitivity and there are relatively few visual receptors that would benefit from a green bridge.
- 10.5.42 The earthworks for the junction at Ermine Street would be contained within the A14 cutting. There would be some loss of hedgerows from this relatively open landscape and the loss of a substantial hedgerow and part of a belt of trees beside Ermine Street. The scheme would also cut through a belt of mature trees just to the east that is partly protected by a TPO. This loss of vegetation at Ermine Street and the addition of noticeable and uncharacteristic elements across the character area would have a moderate adverse impact on this character area of low sensitivity in year 1. This would have a slight adverse effect.

10.5.43 Once the planting has become established, it would soften the form of the new highway earthworks, environmental bunds, bridges and the Ermine Street junction, and the planting would tie into the existing pattern of hedgerows, copses and woodland. This would result in a stronger landscape pattern than exists at the present, with substantial wooded areas around the Ermine Street junction, including existing belts of trees that would be incorporated into the scheme. The upper part of lighting columns at Ermine Street bridge would remain partly visible above established planting. These remaining uncharacteristic elements would have a minor adverse impact on this character area of low sensitivity by year 15. This would have a slight adverse effect, as the scheme would still not fit the landform and pattern of the landscape.

9: Hilton, Conington and Fenstanton Farmland

10.5.44 Construction traffic would generally be restricted to existing highways and the scheme footprint, although haul routes would run north and south of the scheme alignment where the offline section merges with the existing A14. Several soil storage areas would be scattered along the scheme, particularly in the vicinity of over bridges. These features in addition to construction activity and major earthworks for the construction of over bridges and environmental bunds would cause large scale damage to the existing landscape character, a major adverse impact on this character area of low sensitivity and a moderate adverse effect during construction.

10.5.45 To the north-west of Hilton the scheme would run above grade, with raised approach embankments required for the crossing at Mere Way. Some lengths of existing hedgerow would be lost, but this part of the route would run parallel or close to considerable lengths of existing hedgerow, which have been incorporated into the landscape proposals. However, the movement of traffic, particularly high sided vehicles, would still be evident across this landscape as a noticeable and uncharacteristic element.

10.5.46 East of Conington Road bridge, the A14 would run above grade before entering a section of cutting south of Conington landfill. East of Conington landfill, the A14 would be raised on embankment until it merges with the existing A14 at Fen Drayton. Conington Lane bridge and New Barns Lane bridge would be elevated on substantial embankments over the A14. The scheme would cause some loss of characteristic hedgerows and small pasture fields. The additional and elevated sections of highway, although set in the context of the existing A14, would be noticeable and uncharacteristic elements, causing a moderate adverse impact on this character area of low sensitivity in year 1, and a slight adverse effect.

- 10.5.47 Once the planting becomes established, it would largely conceal the new highway earthworks and provide more substantial roadside planting than exists at present. This would largely enclose the movement of traffic but the road would still be evident as a linear planted feature through this largely open landscape. It would, however, be in keeping with the development and planting at Cambridge Services and Buckingham Business Park. This uncharacteristic element would cause a minor adverse impact on this character area of low sensitivity by year 15. The scheme would then have a slight adverse effect, as it would still not quite fit the pattern of the landscape.
- 10.5.48 There would be no physical change to the character areas of Hilton, Fenstanton and Conington, but the scheme would have an adverse influence on their landscape settings. At Fenstanton, this would be partly offset by the reduction in traffic, particularly high sided vehicles, on the existing A14 around the south side of the village.

10. Hilton Road Farmland

- 10.5.49 Construction traffic would be restricted to existing highways and the scheme footprint. Extensive excavation of the borrow pit north of the offline section between Potton Road and Fenstanton Road, along with several soil storage areas and major earthworks for the construction of over bridges would cause large scale damage to this landscape of low sensitivity during construction. This would cause a major adverse impact and a moderate adverse effect during construction.
- 10.5.50 Between Hilton and Fenstanton the new A14 would run on embankment across the low lying landscape, with two side roads rising on embankments to cross over the A14. To the north of the A14, extensive borrow pits would be filled with water, although this would be set within the context of existing water bodies immediately to the north. There would be an environmental bund along much of the southern side of the A14. Sections of existing hedgerow would be lost. The loss of distinctive elements and the addition of noticeable and uncharacteristic elements would cause a major adverse impact on this character area of low sensitivity in year 1, which would cause a moderate adverse effect.
- 10.5.51 Once the planting is established, it would soften the form of the new highway earthworks and the borrow pits, and provide substantial roadside planting that ties into the existing pattern of hedgerows and copses. This would largely enclose the movement of traffic on the A14, although the scheme would still be evident as a linear planted feature through this agricultural landscape. This uncharacteristic element would cause a moderate adverse impact on this character area of low sensitivity by year 15, which would have a slight adverse effect, as it would not quite fit the pattern of the landscape.

11. Fen Drayton Farmland

- 10.5.52 During construction, a haul route would be located north of the existing A14. Intermittent hedgerow vegetation north of the existing A14 would be removed. However, the presence of construction vehicles would be set within the context of the existing A14 and heavy traffic flow. There would be a minor adverse impact on this character area of low sensitivity, which would have a slight adverse effect during construction.
- 10.5.53 The widening of the existing A14 east of Fen Drayton and the incorporation of a drainage lagoon would very slightly impinge on a small part of the southern periphery of this area. However, this would be set within the context of the existing highway and there would be no other direct effects on this landscape. There would be a negligible adverse impact for both year 1 and year 15 on this character area of low sensitivity, which would have a neutral effect.

12. Hill Farm Farmland

- 10.5.54 During construction there would be haul routes operating north and south of the existing A14 and parallel with a local (unnamed) road to Boxworth, along with large site compounds south of Swavesey junction and several soil storage areas at junctions. These features in addition to construction activity and major earthworks for the construction of major junctions at Swavesey and Bar Hill and Robins Lane Bridge would collectively cause large scale damage to the existing landscape character, despite being set within the context of the existing A14 and traffic flow. There would be a major adverse impact on this character area of low sensitivity and a moderate adverse effect during construction.
- 10.5.55 Around Swavesey junction, Bar Hill and Dry Drayton, the scheme would widen the A14 slightly to the north. Swavesey junction and Bar Hill junction would involve major enlargements to the existing junction infrastructure and incorporation of local access roads, and an additional raised road crossing would be incorporated at Robins Lane bridge. This would exacerbate the urban influence of the A14, with some loss of arable farmland, but would not greatly alter the general relationship between the road corridor and the farmland. There would be partial loss of the limited existing roadside vegetation and the new junctions would have more extensive lighting than existing. These localised losses and addition of uncharacteristic elements would cause a minor adverse impact on this character area of low sensitivity in year 1. The scheme would have a slight adverse effect on the landscape character.
- 10.5.56 Once the mitigation planting is established, it would soften the form of the new highway earthworks, as well as integrating the scheme into the existing well vegetated landscapes around Cambridge Services, Lolworth Grange and Bar Hill golf course. Whilst set within the context of existing major infrastructure, the increased size of junctions and additional lighting would slightly exacerbate the influence of highway infrastructure on the landscape. There would be a negligible adverse impact on this character area of low sensitivity by year 15 and a slight adverse effect.

13. Boxworth to Madingley Farmland

- 10.5.57 Construction activity would be limited to extensive excavation of the borrow pit north-west of Boxworth. Whilst there would be limited vegetation removal because this is a landscape of large scale arable fields, there would be noticeable damage to the landscape character during construction. This would give rise to a moderate adverse impact on this landscape of low sensitivity, and a slight adverse effect during construction.
- 10.5.58 Although visible from parts of this character area, the scheme would largely fall outside with the exception of the borrow pit to the north west of Boxworth. Excavation of the borrow pit would involve minimal vegetation removal because arable fields are extensive with limited boundary vegetation, and the landscape would be restored to agricultural land so that there would be limited change to the overall landscape character. The impact would be minor adverse in year 1 on this landscape of low sensitivity, and there would be a slight adverse effect. Mitigation planting around the borrow pit would help to reinstate the landscape pattern so that there would be no change in year 15 and a neutral effect.

14. Bar Hill

- 10.5.59 During construction vegetation would be lost to the south of the junction. Haul routes would be created, and major earthworks would be necessary to create the new embankments for the amended junction layout. Construction activity would, however, be set within the context of the existing major junction and large scale industrial units to the west. Construction activity would also be localised and would only affect a small part of the wider Bar Hill area. This would cause a minor adverse impact on this area of low sensitivity during construction and a slight adverse effect.
- 10.5.60 The scheme would require the loss of existing vegetation around the junction, which would exacerbate the prominence of the highway infrastructure and traffic. However, the proposals would be set within the context of major existing highway infrastructure. This would cause a minor adverse impact in year 1 and a slight adverse effect in year 1.
- 10.5.61 Once mitigation planting has established, the general relationship between the A14 and Bar Hill would be reinstated. The impact would be no change and the effect would be neutral in year 15.

15. Girton West Farmland

- 10.5.62 Construction activity would encroach on the wider landscape well to the south of the existing A14 to enable the construction of the local access road, the new A14 westbound link and associated drainage lagoons. A soil storage area and site compound would be located either side of The Avenue, south of the local access road alignment, and haul routes would run both sides of the alignment of the new A14 westbound link. Major earthworks would be necessary to construct highway embankments, especially the new A14 westbound link, and several areas of excavation would be necessary to implement the drainage lagoons. Much of the existing highway vegetation, the adjacent screening belt of trees and lengths of hedgerows and mature woodland vegetation would be lost. There would be large scale damage to existing landscape features and landscape character during construction giving rise to a major adverse impact on this character area of low sensitivity and a moderate adverse effect.
- 10.5.63 Around Girton interchange, the expanded highway infrastructure would encroach significantly on the surrounding landscape. The overall layout would isolate some fields and significantly disrupt landscape pattern. The local access road to the south of Cambridge Crematorium would detract from the rural character and affect field boundary pattern, numerous drainage lagoons would form uncharacteristic elements within the landscape, and the new A14 westbound link would be raised on a wide embankment. Numerous bridges, additional lighting, signage and gantries would intensify the presence of highway infrastructure. As well as vegetation, areas of pasture and arable farmland within and beside the existing interchange would be lost. These changes would exacerbate the dominance of highway infrastructure within the landscape. The expansion of the interchange would remove characteristic elements and add prominent and uncharacteristic elements, causing a major adverse impact on this character area of low sensitivity in year 1, albeit in the context of the existing major roads. This would have a moderate adverse effect, as it would be at odds with the local pattern and landform.
- 10.5.64 Once mitigation planting is established, it would soften most of the form of the new highway earthworks and provide more substantial roadside planting than exists at present. This would largely enclose the movement of traffic within a wooded area and would integrate the scheme into the local pattern of hedgerows, copses and woodland. Some parts of the additional lighting and gantry signs would remain visible. These additional noticeable uncharacteristic elements would cause a minor adverse impact on this character area of low sensitivity in year 15, which would have a slight adverse effect, as the enlarged interchange would still not quite fit the scale of the landscape.

16. Oakington Farmland

- 10.5.65 East of Dry Drayton Road and towards Girton there would be extensive excavation of a borrow pit and drainage lagoons during construction, along with a soil storage area south-east of Dry Drayton Road. The excavation would necessitate limited vegetation removal because the arable field pattern is extensive with limited hedgerow vegetation. The highway corridor is generally open in this area, so that existing vegetation loss would be limited. The construction activity would be set within the context of the existing highway infrastructure and traffic flow. Nevertheless there would be significant disruption to the landscape during construction, resulting in a major adverse impact on this landscape of low sensitivity and a moderate adverse effect.
- 10.5.66 The extensive water filled cavity of the borrow pit would be at odds with the surrounding agricultural landscape, and additional gantries and lighting at Girton interchange would slightly intensify the prominence of highway infrastructure. In year 1 the impact would be major adverse as a result of the uncharacteristic large scale water body, and there would be a moderate adverse effect.
- 10.5.67 By year 15, established mitigation planting around the borrow pit would help to integrate the feature into the landscape. However, mitigation planting itself, as well as the borrow pit, would remain out of character with the surrounding landscape. Although views of additional lighting and gantries at Girton interchange would remain, the general relationship between the highway infrastructure and this landscape would be reinstated. Therefore the impact in year 15 would be minor adverse and there would be a slight adverse effect.

17. Girton

- 10.5.68 Disruption due to construction would largely be limited to localised loss of existing roadside vegetation north and south of the existing A14. This would cause a minor adverse impact on this character area of moderate sensitivity during construction, and a slight adverse effect.
- 10.5.69 At Girton, the scheme would extend the carriageways, mostly within the existing land take, with the widened road becoming contained by retaining walls and noise barriers. There would be additional lighting for the widened road corridor and the scheme east and west of Girton. There would be loss of roadside vegetation north and south of the existing A14, which would exacerbate the prominence of the A14 in the localised areas north and south of the scheme.
- 10.5.70 The general relationship of the road to the village would remain, but the localised loss of and alteration to elements of the existing landscape would cause a minor adverse impact on this character area of moderate sensitivity in year 1, which would cause a slight adverse effect. There is limited scope for mitigation planting within the highway corridor, therefore the assessment remains as minor adverse impact and slight adverse effect in year 15.

18. North Cambridge Farmland

- 10.5.71 Construction activity would be well contained along the existing A14. Much of the existing limited roadside planting would be lost along the main carriageway. A soil storage area would be located immediately north of the A14, east of Girton, and a drainage lagoon would be excavated immediately north of the carriageway and south of Impington. There would be a minor adverse impact on this character area of low sensitivity during construction and a slight adverse effect.
- 10.5.72 From Girton to Milton along the north side of the A14 Cambridge Northern Bypass, the scheme would be confined to a widening of the existing highway mostly on re-graded embankment. Much of the existing limited roadside planting would be lost along the main carriageway. There would be additional gantries, lighting, noise barriers and drainage lagoons. The scheme would initially increase the visual influence of moving traffic, but would not alter the general relationship of the A14 to the character of the agricultural landscape to either side. It should be noted that the agricultural land to the south would be developed as part of the NIAB site in a similar timescale to the proposed scheme implementation. The localised loss of vegetation and addition of further highway features would cause a minor adverse impact on this character area of low sensitivity in year 1 and a slight adverse effect.
- 10.5.73 Once mitigation planting is established it would soften the form of the new highway earthworks and help integrate the scheme into the existing planted landscape around the adjoining townscape. The impact would be no change in year 15 and there would be a neutral effect.

19. Histon and Impington

- 10.5.74 Construction activity would be well contained along the existing A14, with some localised loss of vegetation, and re-grading of the embankment north of the carriageway. This would cause a minor adverse impact on this character area of moderate sensitivity and a slight adverse effect during construction.
- 10.5.75 The loss of screening vegetation would make the proposed noise barrier and lighting more apparent and exacerbate the prominence of the highway infrastructure at the southern periphery of this area. However, the extended noise barrier would also reduce the visual influence of traffic movement on the local character. This would have a negligible adverse impact in year 1 on this character area of moderate sensitivity, and a slight adverse effect.
- 10.5.76 The visible influence of the road corridor on the southern part of the village would be reduced in year 15 by mitigation planting. Therefore the impact would be no change and there would be a neutral effect.

20. North Cambridge

- 10.5.77 During construction there would be some localised loss of existing roadside or amenity vegetation as a result of highway widening and re-grading of some sections of embankment along the northern periphery of this landscape character area. There would be a minor adverse impact during construction and a slight adverse effect on this landscape character area of low sensitivity.
- 10.5.78 The general relationship of the A14 to the various commercial and residential developments along the northern fringe area would not be changed. Changes as a result of the scheme would be barely noticeable in the context of the existing large groups of buildings and their associated roads and parking areas. This would cause a negligible adverse impact in year 1 and a slight adverse effect. This would reduce to no change by year 15 as mitigation planting becomes established and there would be a neutral effect.

21. Milton

- 10.5.79 Impacts on this landscape character area are not assessed because it would not be physically directly affected by the scheme. Impacts on views from this landscape are, however, included in the assessment of visual impacts.

Summary of effects on landscape character

- 10.5.80 *Table 10.11* summarises the significance of effects of the scheme on landscape character areas.

Table 10.11: Summary of effects on landscape character

Landscape character area	Sensitivity	Construction		Year 1		Year 15	
		Magnitude of impact	Significance of effect	Magnitude of impact	Significance of effect	Magnitude of impact	Significance of effect
1. Ellington Farmland	Low	Moderate adverse	Slight adverse	Moderate adverse	Slight adverse	Minor adverse	Slight adverse
2. Brampton Wood to Buckden	Moderate	Negligible adverse	Slight adverse	No change	Neutral	Minor beneficial	Slight beneficial
3. Brampton Farmland	Low	Major adverse	Moderate adverse	Major adverse	Moderate adverse	Moderate adverse	Slight adverse
4. North-Flowing Ouse Valley Floodplain	Moderate	Major adverse	Large adverse	Major adverse	Large adverse	Moderate adverse	Large adverse
5. East-Flowing Ouse Valley Floodplain	High	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected
6. Huntingdon: Hinchingsbrooke and Central Part of Views Common	High	Large adverse	Large adverse	Major adverse	Large adverse	Moderate adverse	Moderate adverse
6. Huntingdon: Station Environs	Moderate	Large adverse	Large adverse	Major beneficial	Large beneficial	Major beneficial	Large beneficial
6. Huntingdon: Eastern Part of Mill Common	High	Large adverse	Large adverse	Major adverse	Large adverse	Large adverse	Large adverse
7. Godmanchester	High	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected
8. Offord Road to Wood Green Farmland West	Low	Major adverse	Moderate adverse	Major adverse	Moderate adverse	Moderate adverse	Slight adverse
8. Offord Road to Wood Green Farmland East	Low	Major adverse	Moderate adverse	Moderate adverse	Slight adverse	Minor adverse	Slight adverse

Landscape character area	Sensitivity	Construction		Year 1		Year 15	
		Magnitude of impact	Significance of effect	Magnitude of impact	Significance of effect	Magnitude of impact	Significance of effect
9. Hilton, Conington and Fenstanton Farmland	Low	Major adverse	Moderate adverse	Moderate adverse	Slight adverse	Minor adverse	Slight adverse
10. Hilton Road Farmland	Low	Major adverse	Moderate adverse	Major adverse	Moderate adverse	Moderate adverse	Slight adverse
11. Fen Drayton Farmland	Low	Minor adverse	Slight adverse	Negligible adverse	Neutral	Negligible adverse	Neutral
12. Hill Farm Farmland	Low	Major adverse	Moderate adverse	Minor adverse	Slight adverse	Negligible adverse	Slight adverse
13. Boxworth to Madingley Farmland	Low	Moderate adverse	Slight adverse	Minor adverse	Slight adverse	No change	Neutral
14. Bar Hill	Low	Minor adverse	Slight adverse	Minor adverse	Slight adverse	No change	Neutral
15. Girton West Farmland	Low	Major adverse	Moderate adverse	Major adverse	Moderate adverse	Minor adverse	Slight adverse
16. Oakington Farmland	Low	Major adverse	Moderate adverse	Major adverse	Moderate adverse	Minor adverse	Slight adverse
17. Girton	Moderate	Minor adverse	Slight adverse	Minor adverse	Slight adverse	Minor adverse	Slight adverse
18. North Cambridge Farmland	Low	Minor adverse	Slight adverse	Minor adverse	Slight adverse	No change	Neutral
19. Histon and Impington	Moderate	Minor adverse	Slight adverse	Negligible adverse	Slight adverse	No change	Neutral
20. North Cambridge	Low	Minor adverse	Slight adverse	Negligible adverse	Slight adverse	No change	Neutral
21. Milton	Low	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected	Not directly affected

Landscape effects: polices and designations

10.5.81 *Appendix 10.1* details how the scheme relates to all polices individually listed in *Table 10.1*. *Table 10.12* provides a summary of how the scheme relates to the key legislative themes defined in *Table 10.1*. This also covers landscape designations as described within the introduction to this chapter.

Table 10.12: Policy and legislation

Legislative theme	How scheme relates
Respecting landscape character and promoting good quality design	<ul style="list-style-type: none"> • The excavation extent of borrow pits has been carefully considered so that a 'buffer' would be retained between the extent of excavation and any sensitive environmental constraints. Restoration plans for the borrow pits would provide for sensitive restoration of the borrow pits into the surrounding topography in keeping with the surrounding landscape character. • The online section of the scheme would be set within the context of major existing highway infrastructure and would not generally cause significant adverse effects on landscape character. There would also be some beneficial effects on landscape character as a result of anticipated reduction in traffic flow in some areas. However, there would be some adverse effects on landscape character as a result of the introduction of major highway infrastructure in rural areas along the offline section of the scheme and sensitive locations within Huntingdon town centre (refer to the landscape effects: landscape character section, above and <i>Table 10.11</i>). • Impacts on landscape character have been reduced throughout the iterative design process, with landscape input to bridge design, borrow pit extent and locations, location of gantries, alignment of local access roads and NMU routes and justification for environmental bunds. • The scheme would not directly affect any Protected Village Amenity Areas or Important Countryside Frontages as defined within <i>South Cambridgeshire Development Control Policies DPD</i> (South Cambridgeshire District Council, 2007). Whilst the scheme would be immediately adjacent to a Protected Village Amenity Area north of Bar Hill and would also be in close proximity to Protected Village Amenity Areas north-west of Histon junction and north-east of Milton junction, the scheme would be set within the context of the existing major highway infrastructure. Although there would be some temporary adverse effects during construction, it is not considered that the scheme would adversely impact on the character, amenity or tranquillity of these designated areas following construction. • Whilst not an adopted policy, the scheme is located adjacent to an area of Local Green Space at Bar Hill, as defined within <i>South Cambridgeshire Local Plan: Proposed Submission</i> (South Cambridgeshire District Council, 2013). The scheme would be set within the context of the existing major highway infrastructure and would not affect the character or local significance of the designated area.

Legislative theme	How scheme relates
	<ul style="list-style-type: none"> Detailed landscape mitigation would aim to reflect principles set out in published guidance such as <i>Cambridgeshire Landscape Guidelines</i> (Cambridgeshire County Council, 1991) and to reflect the variations in local landscape character types and areas defined in <i>Table 10.9</i>.
Promoting good quality design	<ul style="list-style-type: none"> The scheme design has evolved through an iterative design process with landscape input to achieve a high quality design that is appropriate to the local area. Landscape mitigation, including environmental bunds and extensive proposed planting, forms an integral part of the design that aims to reduce visual intrusion and contribute to landscape character. The design approach for Huntingdon A14 de-trunking complements the existing character of Hinchingsbrooke House estate and other parts of the town with avenues of trees set in broad grassland verges.
Restricting light pollution	<ul style="list-style-type: none"> Much of the offline section of the scheme, including the river Great Ouse viaduct, would not be lit. The impact of road lighting would be minimised through careful placement where such a system is deemed essential. The use of modern, controllable light sources with sharp cut off properties, coupled with dynamic systems of operation, would reduce the effect of lighting on the surrounding environment.
Restricting/mitigating development within the green belt and other identified open spaces	<ul style="list-style-type: none"> The online widening would have a negligible effect on the openness of the green belt. However the local access road to the south of Cambridge Crematorium, and the major infrastructure at Girton interchange, would expand the extent of highway infrastructure within this part of the green belt and adversely affect the 'openness' of the landscape in this very localised part of the green belt. Proposed planting would establish to filter views of the scheme and traffic flow to help mitigate adverse effects on the rural character and perceived openness of the landscape. The scheme would adversely affect privately owned green space within Huntingdon: <ul style="list-style-type: none"> Views Common Link would cross the eastern part of Views Common, an Open Space Allocation (<i>Policy EN14</i>) defined within <i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i>. Mill Common Link would cross parts of Mill Common, identified as Open Spaces and Gaps for Protection (<i>Policy EN15</i>) within <i>Huntingdonshire Local Plan 1995 and Local Plan Alteration 2002</i>. Landscape mitigation within Huntingdon would soften the intrusiveness of the link roads, and minimise impacts on the open nature of Views Common and Mill Common as far as practicable. Design elements that complement the existing character of the town would be introduced. The removal of the viaduct and its embankments would help to mitigate the loss of open space and the privately owned green space at Views Common, in accordance with Policy HW7 within <i>The Huntingdon West Area Action Plan</i> (Huntingdon District Council, 2011).

Legislative theme	How scheme relates
	<ul style="list-style-type: none"> The aspirations set out within Policy HW8, <i>The Huntingdon West Area Action Plan</i> (Huntingdon District Council, 2011) and Policy LP3 Open Space, (Huntingdon District Council, 2013) would be supported by the removal of the A14 viaduct. Minor earthworks and vegetation loss would affect a localised part of the registered section of Mill Common immediately adjacent to the existing A14. Although there would be some temporary effects during construction, it is not considered that there would be any significant adverse effects on the character or use of the common following construction. The scheme would not directly affect Westside Common, although there might be some minor improvements to tranquillity based on predicted reductions in traffic flow on the de-trunked section of the A14.
Protection of the countryside and its features	<ul style="list-style-type: none"> The landscape surrounding the scheme is generally open with large fields and limited tree cover. Intensive agriculture has led to the removal of many field boundary hedgerows. The scheme design evolved to avoid loss of/damage to some trees protected by TPO. Trees would be protected during construction in accordance with best practice. Landscape mitigation includes extensive tree and shrub planting that would offset vegetation loss and provide a landscape framework that would contribute to landscape character.
Protection of heritage landscape features and their settings	<ul style="list-style-type: none"> Impacts have been identified on heritage assets along the scheme mainline. These have been mitigated as far as practicable through the design of the scheme and development of site specific heritage mitigation measures (refer to <i>Chapter 9</i>). It is not considered that the scheme would cause any adverse effects on the setting of registered historic parks and gardens because these are situated a significant distance from the scheme at the nearest point. The scheme would not directly affect Brampton Wood which is designated ancient woodland. A number of veteran trees would be removed within Huntingdon. Whilst it is not practicable to mitigate this loss instantly, proposed planting within Huntingdon includes a number of specimen trees that would establish to become landscape features. The scheme would intensify highway infrastructure within Huntingdon Conservation Area, although the removal of the viaduct would also provide benefits to the historic town. Design elements that complement the existing character of the town would be introduced to mitigate impacts on the setting of the town's heritage assets. It is not considered that the landscape setting of any other surrounding conservation areas would be significantly affected because of the distance between the scheme and the designated areas.

Legislative theme	How scheme relates
	<ul style="list-style-type: none"> • There would be views of the scheme from a number of listed buildings (refer to <i>Appendices 10.2 and 10.3</i>). The scheme would result in a range of impacts on the setting of surrounding listed buildings, ranging from large adverse to large beneficial (refer to <i>Chapter 9</i>). These impacts have been mitigated for as far as practicable through design and development of landscape mitigation proposals. The setting of some listed buildings in Huntingdon town centre in the vicinity of Mill Common would be adversely affected by the Pathfinder Link. The removal of the viaduct in Huntingdon would however, conversely result in beneficial impacts on the setting of Huntingdon Station (grade II listed). Proposed planting would establish to soften views of the scheme and reduce impacts on Huntingdon Conservation Area and the wider setting of listed buildings.
Conservation and enhancement of green infrastructure	<ul style="list-style-type: none"> • The river Great Ouse viaduct would adversely affect part of the Great Ouse valley, which is endorsed by Huntingdonshire District Council as an area of strategic green infrastructure (<i>Huntingdonshire Local Development Framework Core Strategy</i>, adopted September 2009, Policy CS 9 Strategic Green Infrastructure Enhancement). Whilst the promoted Ouse Valley Way Long Distance Path would be retained along the river Great Ouse and beneath the viaduct, and the Ouse would remain navigable, the amenity value of this part of the valley would inevitably be adversely affected. • The river Great Ouse viaduct has been carefully designed to limit impacts on the Great Ouse valley and to support the views of key stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An options design process has been carried out, and a design has been generated to minimise visual intrusion and to maintain views along the valley floor. • Mitigation planting would soften the abutments in the long term.

Visual effects: introduction

10.5.82 *Appendices 10.2 – 10.5* contain detailed schedules of the assessment of visual impact for the different receptor groups considered in this assessment. These are:

- *Appendix 10.2 Visual effects schedule residential properties;*
- *Appendix 10.3 Visual effects schedule commercial properties;*
- *Appendix 10.4 Visual effects schedule public rights of way; and*
- *Appendix 10.5 Visual effects schedule public receptors.*

10.5.83 The location of visual receptors and the significance of visual impacts are shown on:

- *Figure 10.7* for the scheme in year 1; and
- *Figure 10.8* for the scheme in year 15.

10.5.84 These figures also show the pattern of significant existing vegetation for year 1, with the proposed planting also shown on the plans for year 15.

- 10.5.85 *Figure 10.6* contains photomontages at key representative points along the scheme. These illustrate the existing view and the view in year 1 and year 15.
- 10.5.86 It is anticipated that there would be beneficial visual effects as a result of the predicted reduction in traffic flow on local roads and the de-trunked section of the A14. *Appendix 10.6* contains a list of all residential properties, commercial properties, PRow and public receptors that are likely to experience beneficial visual effects as a result of anticipated reduction in traffic flow.

Visual effects: Alconbury to Fen Drayton

- 10.5.87 Between Alconbury and Brampton Hut junction the scheme would largely entail widening of the existing A1. Visual receptors are either well screened from the existing A1 by well-established vegetation or currently experience open views of the A1 so that the scheme would cause minimal change in view.
- 10.5.88 Between Ellington and Fen Drayton the scheme would run adjacent to the A1 and then east across open farmland, which would add to the influence of the existing road corridors and increase the number of properties and PRow with adverse visual impacts, particularly to the west and south of Brampton, in the housing areas on the former air base south of Brampton and at various farms and other rural properties that are close to the route or have open views across it.
- 10.5.89 During construction the excavation of borrow pits, major earthworks to create environmental bunds, vegetation clearance, soil storage areas, construction compounds and the presence of heavy plant would cause a number of visual effects of high significance. Visual receptors experiencing adverse visual effects of high significance during construction would often experience visual effects of high significance in winter year 1 as well. However some visual receptors would have close views of construction activity but not of the completed scheme, and would therefore experience visual effects of higher significance during construction than in winter year 1. Some visual effects would be more significant during construction than in winter year 1 as a result of proposed environmental bunds and noise fences that would provide instant screens to traffic in some locations following construction. The most significant adverse visual effects (very large adverse) that apply to the construction phase only would be on views from the following visual receptors:
- some residential properties on the western periphery of Brampton (visual receptors 7, 10 and 11) and footpath Brampton 15 (visual receptor P6) from where there would be views of major earthworks to construct the environmental bund and the A1 Brampton interchange bridge;
 - realigned bridleway Brampton 19 (visual receptor P7) from where there would be close views of borrow pit excavation, soil storage area and construction activity along the A1;

- Brampton Lodge Farm, Brampton (visual receptor 21) from where there would be narrow views of borrow pit excavation, haul route and soil storage area and construction of Grafham Road bridge and realigned A1;
- some residential properties on the southern edge of RAF Brampton (visual receptor 26) from where there would be foreground views of borrow pit excavation, soil storage area and construction at Brampton interchange and Buckden Road;
- footpath Brampton 3 (visual receptors P11 and P12) from where there would be open foreground views of major borrow pit excavation and soil storage areas and distant views of construction compound and Grafham Road bridge construction; and
- bridleway Hemingford Abbots 10 (visual receptor P23) and bridleway Hemingford Grey 13/bridleway Hemingford Abbots 9 (Mere Way) from where there would be close, filtered views of A14 construction and open views of Mere Way bridge construction and soil storage area close at hand.

10.5.90 Following construction the most visually intrusive features would be:

- the raised junction links and associated lighting at Ellington junction and Brampton interchange;
- the elevated A1 Brampton interchange bridge;
- the crossing of the river Great Ouse and East Coast mainline railway;
- extensive borrow pits (in the short term);
- the route where it would be raised on embankment; and
- numerous overbridges to accommodate local roads along the length of the offline section of the scheme.

10.5.91 The environmental bunds and noise barriers included in the scheme would limit the visibility of traffic in the closest views from the outset. In particular, west of Brampton, the environmental bund would largely screen views of traffic from housing along the western edge of Brampton. The environmental bunds west of Mere Way, south of the A14, and in key sections east of Mere Way to Fen Drayton would screen views of vehicles other than high sided vehicles and would screen views of vehicle headlights. The extended noise barrier at Alconbury would be beneficial in screening views of traffic on the A1 from houses east of the A1 and from byway Alconbury 1.

10.5.92 Whilst the properties on the western edge of Brampton are close to the elevated A14 over the A1, views of the highway infrastructure would largely be screened by garden vegetation on the edge of properties and the proposed environmental bund along the highway corridor. Further south, properties and PRow on the edge of RAF Brampton would have close foreground views of the proposed borrow pits and distant views of Brampton interchange and lighting.

- 10.5.93 There would generally be middle distance oblique and/or well filtered views towards the East Coast mainline railway bridge and high sided vehicles above false cutting from properties within the northern part of Offord Cluny. Visual effects would be of low significance because the scheme would not become a dominant part of these views. Distant views towards the scheme from the northern peripheries of Hilton and Conington would be filtered by a significant amount of intervening field boundary vegetation so that effects would also be of low significance. Views towards the scheme from visual receptors on the southern edge of Fenstanton and Fen Drayton would be distant and beyond traffic on the existing A14 so that visual effects would again be of low significance.
- 10.5.94 The most significant adverse visual effects following construction (very large adverse during construction and in winter year 1 would be on views from the following visual receptors):
- Rectory Farm (visual receptor 5) from where there would be close views of Ellington junction, the A14 and borrow pits;
 - users of a section of bridleway Brampton 19 (visual receptor P2) from where there would be close views of the borrow pits and of the A14;
 - users of byway Brampton 1/byway Buckden 11 (visual receptor P9) from where there would be view towards Brampton interchange;
 - properties south of Brampton interchange (visual receptors 33 and 35) from where there would be views of Buckden Road bridge and lighting;
 - users of a section of Ouse Valley Way (visual receptor P13), from where there would be foreground views of the river Great Ouse viaduct;
 - residential properties at Offord Hill (visual receptors 45, 46 and 47) and from the northernmost property within Offord Darcy (visual receptor 43), from where there would be open views of the East Coast mainline railway bridge and Offord Road bridge;
 - users of a number of PRoW in close proximity to the A14 alignment and local road bridges crossing the A14, who would have close foreground views of the scheme and traffic movement. The most adversely affected PRoW would be bridleway Godmanchester 1, Pathfinder Way Long Distance Walk at Silver Street (visual receptor P19), realigned bridleway Hemingford Abbots 10 east of Mere Way (visual receptor P22), Footpath Hemingford Grey 10 west of Potton Road (visual receptor P29), permissive footpath immediately south-west of Conington Road bridge (visual receptor P40) and footpath Fenstanton 6 north-east of Conington Road bridge;
 - Debden House, Debden Top Farm and Debden Cottages (visual receptor 52) from where there would be elevated views of Silver Street bridge;

- Topfield Farm (visual receptor 61) from where there would be close foreground views of Mere Way bridge and A14 traffic, partially screened by environmental bunds;
- Old Clayfields (visual receptor 69) from where there would be filtered foreground views close at hand of traffic on Hilton Road bridge; and
- Oxholme Farm (visual receptor 68) from where there would be foreground views of high sided vehicles above environmental bund along A14 and of traffic on raised Hilton Road bridge.

10.5.95 The planting proposals would establish belts of screening vegetation that would, over time, provide screening of views of the scheme and would generally reduce the significance of visual effects in the long term. However the junction lighting and some of the signage would remain as intrusive elements, as would the movement of traffic on parts of the Great Ouse viaduct and on some of the over bridges. The new planting would also lead to the loss of some existing open views. It would not be practicable to mitigate visual effects on a section of the Ouse Valley Way (visual receptor P13) where there would be open foreground views of the river Great Ouse viaduct.

Visual effects: Fen Drayton to Milton

10.5.96 The additional and widened carriageways would in many places result in the loss of mature vegetation that currently screens or filters views to the existing A14. There are a number of properties that have views towards the existing A14 that would experience adverse effects, as the road would move closer and screening vegetation would require removal, mainly to the south of the existing A14 around Lolworth, to the north of the existing A14 around Bar Hill, to the north and south of the Girton interchange and on the west side of Girton village. The enlarged junction layouts at Bar Hill, Swavesey and Girton interchange include more extensive raised carriageways and lighting than the existing arrangement, which would increase the existing adverse visual impacts. At Girton, the proposed widening of carriageways and removal of vegetation on the cutting slopes would increase the apparent severance of the village, as well as the visual impact on nearby properties and the small park on the north side of the road.

10.5.97 Along the A14 Cambridge Northern Bypass between Histon and Milton, there are properties at the edges of settlements that already have filtered views of the existing road and associated traffic, which would be opened up when existing roadside vegetation is removed. The addition of noise fencing and gantry signs would also add to visual impacts in some locations.

- 10.5.98 During construction the excavation of the borrow pit north-west of Boxworth, major earthworks and vegetation clearance, the presence of soil storage areas, construction compounds and heavy plant would cause some visual effects of high significance. However, views of construction activity would generally be set within the context of the existing major highway corridor and traffic movement, except for the excavation of the borrow pit north-west of Boxworth and construction of the local access road to the south of Cambridge Crematorium. Visual receptors experiencing adverse visual effects of high significance during construction would also experience visual effects of high significance in winter year 1. There are no visual receptors that would experience very large adverse visual effects during construction but not in winter year 1.
- 10.5.99 Following construction the most visually intrusive elements of the scheme would be:
- the expansion of Swavesey junction, Bar Hill junction and Girton interchange and the associated loss of existing tree screening;
 - extensive borrow pits (in the short term);
 - the local access road between Oakington Road and Girton interchange;
 - local access road north of Bar Hill junction; and
 - the widening of the cutting at Girton and regrading of the embankment north of the Cambridge Northern Bypass between Histon and Milton, along with the associated loss of part of the existing screening vegetation.
- 10.5.100 The noise barriers included in the scheme would limit the visibility of traffic in the closest views from the outset. The noise barrier by Hill Farm Cottages would screen some oblique views of traffic. The noise barriers by Hacker's Fruit Farm and Catch Hall Farm would screen views of traffic from the ground floor. The noise barriers through Girton cutting would screen views of traffic, but would themselves form intrusive elements in some views, particularly in the short term before mitigation planting establishes. The noise barrier past Orchard Park would improve the existing visual screen to traffic movement because it would be increased in height from 3m to 4m. The noise barrier past the travellers' site north of the A14 Cambridge Northern Bypass between Histon and Milton junctions would screen views of vehicles other than high sided vehicles, and would screen views of vehicle headlights.
- 10.5.101 Visual effects along the online section of the scheme would not generally be of very high significance because many of the visual receptors that would be affected already have views towards major highway infrastructure. However, vegetation removal and highway improvements would exacerbate the prominence of highway infrastructure in many views.

- 10.5.102 Views towards the borrow pit south-east of Dry Drayton Road would largely be restricted to views from vehicle travellers. Views from Poplar Villas and Poplar Farm to the north-west (visual receptor 115) would be adversely affected in the short term. However in the long term, when mitigation planting around the borrow pit would have established, it is anticipated that the change in the character of the view would cause a beneficial visual effect. Views towards the borrow pit north-west of Boxworth would generally be restricted by mature screening vegetation around Boxworth, although there would be foreground views from bridleway Boxworth 1 (visual receptor P226) of excavation and restoration in the short term. This borrow pit would be restored to agriculture so that visual effects would be insignificant by year 15.
- 10.5.103 The most significant adverse visual effects following construction (very large adverse during construction and in winter year 1) would be on views from the following visual receptors:
- Noon Folly Farm (visual receptor 104) from where there would be clear views of the local access road and expanded Bar Hill junction;
 - users of bridleway Longstanton 10 (visual receptor P67) from where there would be foreground views of local access road, elevated NMU bridge and enlarged Bar Hill junction; and
 - users of bridleway Dry Drayton 12 (visual receptor P77) and footpath Girton 8 (visual receptor P80) from where there would be foreground views of traffic on the local access road.
- 10.5.104 The planting proposals would establish belts of screening vegetation that would, over time, provide general screening to the widened road corridor and reduce the significance of visual effects in the long term. However, the junction lighting, some of the signing and the traffic on the bridges would remain as intrusive elements. The new planting would also lead to the loss of some existing open views.

Visual effects: Huntingdon

- 10.5.105 Within Huntingdon there would be localised impacts from the loss of existing vegetation and open land associated with the removal of the existing A14 embankments and viaduct, along with the provision of an amended road layout on and alongside Mill Common and new links across parts of Mill Common and Views Common. Although the road links would be less busy than the existing A14, they would include street lighting and additional traffic signs and signals. There would also be some areas where existing highway planting would be lost or considerably reduced, which would initially increase the visibility of traffic. The part of Views Common that is currently occupied by the A14 embankment would be graded back to something similar to the 'natural' landform, with the open view to the north restored from footpaths Huntingdon 10 and 11.

- 10.5.106 Construction of the link roads across Views Common and Mill Common, as well as works relating to the removal of the existing A14 embankment on Views Common and the demolition of the A14 viaduct would cause some visual effects of high significance. The most significant adverse visual effects (very large adverse) that apply to the construction phase would be on views from the following visual receptors:
- residential properties 2 – 6 The Walks North (visual receptor 210) and residential properties 3 – 9 Prince's Street, The Walks East (visual receptor 211) and 10 – 12 Castle Hill The Walks East (visual receptor 213) and footpath Huntingdon 14 (visual receptor P218) from where views of construction of The Pathfinder Link would be prominent; and
 - users of footpath Huntingdon 6 and un-registered footpath across Mill Common (visual receptors P206 and P207) and Mill Common (visual receptor PR17) from where there would be very prominent views of construction of Pathfinder Link, construction activity in relation to the de-trunked A14 and demolition of A14 viaduct.
- 10.5.107 The removal of the existing A14 viaduct would remove a locally dominant structure in views across the commons and from the south-west, and would cause a number of beneficial visual effects. In particular, there would be localised visual effects of very large beneficial significance on users of footpath Huntingdon 10 (visual receptor P203a) where it currently passes beneath the viaduct and on views from Huntingdon Station (visual receptor PR16).
- 10.5.108 There would be no effects of very large adverse significance on visual receptors within Huntingdon following construction. The most significant adverse visual effects following construction (large adverse in winter year 1) would be on views from the following visual receptors:
- users of PRoW crossing Views Common and adjoining playing field to the south from where there would be views towards the Views Common Link and roundabout;
 - users of PRoW crossing Mill Common from where there would be views towards the Pathfinder Link and junction;
 - employees at the Cambridgeshire Constabulary headquarters from where there would be views west of Views Common Link; and
 - residential properties north of Mill Common on The Walks North (visual receptor 210), Prince's Street The Walks East (visual receptor 211) and Castle Hill The Walks East (visual receptor 213) from where the Pathfinder Link and junction would be prominent.
- 10.5.109 The planting proposals would establish or recreate belts of screening vegetation that would, over time, provide general screening to the scheme and help to integrate it into the surrounding townscape. Some parts of the new highway earthworks would be graded out to marry into the character of the open land on Mill Common. However, some of the proposed junction lighting and signing for the new local road links would remain as additional intrusive elements.

Visual effects: Lighting

- 10.5.110 Highway lighting columns would have limited influence on views during daylight, adjacent to the moving traffic, but would have a more general influence at dusk and would affect views during darkness. These changes have been taken into account in the assessment of landscape and visual effects (detailed in *Appendices 10.2 – 10.5*).
- 10.5.111 The general proposals for highway lighting to be installed as part of the scheme are set out in *Chapter 3*. These dimensions have been used as the likely worst case heights of lighting columns for the purposes of this assessment. Lighting would be provided at Brampton and Girton interchanges and at all of the roundabouts at the proposed junctions.
- 10.5.112 New areas of highway lighting and a summary of visual impacts are as follows:
- The proposed lighting at Brampton interchange would cause adverse visual impact on properties surrounding the scheme, particularly the small number of houses nearby and on the edge of the housing area at the former airbase to the north-east, as well as on leisure users of byway Brampton1/byway Buckden 11 to the west and local lanes. As there is already existing lighting along the A1, the additional impact caused by the increased extent of lighting would be limited.
 - The proposed lighting at A1198 Ermine Street junction would have an adverse impact on Depden Farm and Beaconsfield Equine Centre and Wood Green Animal Shelter to the north of the scheme and Depden Lodge Farm to the south. Users of Bridleway Hemingford Abbots 10 to the south would also be affected.
 - Lighting at Oakington Road roundabout and Girton roundabout west would cause limited adverse visual effects because there are few surrounding visual receptors. Within Huntingdon, The Pathfinder Link and junctions at Views Common, and Mill Common Link and junctions, would be lit, which would have an adverse impact on views from surrounding properties and on paths across the adjacent areas of open land. Some new lighting along the Mill Common Link would be just visible from parts of Portholme meadow to the south. Impacts would be limited by the general extent of street lighting elsewhere in the town.
- 10.5.113 There would be extended areas of highway lighting at the following locations:
- Brampton Hut junction and the adjacent roadside services are already lit, so the Ellington junction lighting and new lighting on the link to Brampton Hut junction would extend the lighting to the west. This would increase the existing adverse impact of lighting on nearby properties to the south of Ellington junction and, more distantly, to the north.

- Swavesey junction is already lit, but the scheme would increase the lit area on both sides of the A14, and there would also be lighting on Swavesey NMU bridge. There would be an adverse visual impact on the nearby farms and businesses.
- Bar Hill junction is already lit, but the scheme would extend the lit area, and there would also be lighting on Bar Hill NMU bridge. This would have an adverse visual impact on properties in Bar Hill and on the nearby farms and businesses to the north.
- The changes to and expansion of Girton interchange would require the existing lighting to be replaced and new lighting to be added to the additional links. This would significantly increase the extent and quantity of highway lighting and would have an adverse impact on properties close to the interchange, particularly on properties on the edge of Girton, as well as on PRow to the north and south.
- The eastern extension of lighting along the A14 from Girton interchange on properties on the edges of Girton and Histon.
- Histon junction and Milton junction are already lit and proposals would broadly be a replacement of the existing pattern of lighting plus the extension of lighting along the westbound off slip at Milton junction.

10.5.114 *Table 10.13* provides a summary of visual effects experienced by the different receptor groups during construction, in winter year 1 and in summer year 15.

Table 10.13: Summary of visual effects

Visual receptor / timescale	Very large adverse	Large adverse	Moderate adverse	Slight adverse	Neutral	Slight beneficial	Moderate beneficial	Large beneficial	Very large beneficial
Residential properties: construction	117	215	226	628	27	0	0	0	0
Residential properties: winter year 1	19	70	147	636	33	199	23	86	0
Residential properties: summer year 15	0	29	48	500	313	90	137	96	0
Public rights of way: construction	20	17	19	33	5	0	0	0	0
Public rights of way: winter year 1	11	18	20	38	2	0	2	2	1
Public rights of way: summer year 15	1	7	17	43	14	7	1	3	1

Visual receptor / timescale	Very large adverse	Large adverse	Moderate adverse	Slight adverse	Neutral	Slight beneficial	Moderate beneficial	Large beneficial	Very large beneficial
Commercial properties: construction	0	1	16	34	4	0	0	0	0
Commercial properties: winter year 1	0	0	12	28	11	4	0	0	0
Commercial properties: summer year 15	0	0	1	21	29	3	1	0	0
Public receptors: construction	2	4	3	8	1	0	0	0	0
Public receptors: winter year 1	1	2	5	6	1	2	0	0	1
Public receptors: summer year 15	0	1	4	7	3	2	0	0	1

10.6 Summary and conclusion

- 10.6.1 The offline section of the scheme would introduce major highway infrastructure to the rural landscape, which would inevitably cause adverse landscape and visual effects of large and very large significance. The online section of the scheme would generally be set within the context of existing major highway infrastructure which would help to restrict landscape and visual effects, although the removal of existing vegetation and the introduction of additional elements such as lighting, signage and gantries would exacerbate the prominence of the infrastructure in the landscape. The introduction of, and improvements to, noise barriers would help to screen existing views of traffic and would therefore cause some beneficial visual effects. Extensive borrow pits would permanently affect views, land use and landscape character along both the online and offline sections of the scheme.
- 10.6.2 Within Huntingdon the scheme would have an urbanising effect on Views Common and, in particular, Mill Common where the extent of privately owned green space would be reduced. However, the section of the existing A14 embankment to the east of the Views Common roundabout would be removed as part of the scheme, which would create new green space within the common and reduce severance of the common caused by the existing A14. The removal of the existing A14 viaduct and its associated traffic, embankment and sign gantries would cause localised beneficial landscape and visual effects of high significance.

10.6.3 Key adverse landscape impacts would include:

- vegetation removal including some trees with TPO status along sections of highway to be widened, along the offline section of the scheme, in the vicinity of borrow pits and within Huntingdon;
- disruption and changes to landform with environmental bunds, extensive borrow pits and scheme in cutting or on embankment;
- intensification of highway infrastructure with increased width of traffic on sections of widened highway, the introduction of major highway infrastructure along the offline section of the scheme, as well as major junctions and bridge structures;
- increased dominance of highway infrastructure, with introduction of new sign gantries, variable message signs (VMS), CCTV cameras/masts and lighting columns;
- changes to landscape character throughout the scheme, with increased influence and dominance of highway infrastructure and density of traffic;
- increased light spill and impacts on character of landscape during darkness in localised areas around junctions;
- changes to land use, landscape pattern and landscape character as a result of the alignment of the offline section of the scheme and extensive borrow pit areas; and
- effects on designated areas and features including Huntingdon Conservation Area, listed buildings and landscape related planning policy areas including very localised parts of the green belt at Girton interchange and south of Cambridge Crematorium.

10.6.4 Key adverse visual impacts would include:

- views of construction activity including heavy construction plant and materials, soil storage areas, construction compounds and haul routes, major earthworks and excavation including borrow pits;
- views of major highway infrastructure including major junctions and bridges, as well as new sign gantries, VMS, CCTV cameras/masts and lighting columns;
- views of other scheme elements including environmental bunds, noise barriers, drainage lagoons and ecological mitigation areas and ponds;
- views of lighting columns and light spill around junctions;
- more open views of traffic on existing highways in the short term as a result of vegetation removal; and
- views of traffic movement along sections of the scheme where it is not obscured within cutting or by environmental bunds.

10.6.5 Beneficial landscape and visual impacts would include:

- extensive areas of mitigation planting and ecological planting would establish to enhance landscape character, and provide landscape pattern and structure;
- removal of the viaduct within Huntingdon would enhance local townscape quality;
- the extent of some existing views of highway infrastructure and traffic flow is likely to be reduced with environmental bunds and mitigation planting (once it is established); and
- anticipated reduction in traffic flow on a number of roads and the de-trunked section of the A14 would cause numerous beneficial visual effects on views from residential properties, commercial properties, public receptors and public rights of way.

10.6.6 Landscape and visual effects have been assessed as separate areas and individual receptors in accordance with *IAN 135/10*. When concluding the overall significance of landscape and visual effects, the geographical extent of effects and cumulative effects also need to be considered. This relies on the professional judgement of suitably qualified and experienced specialists, as listed in *Appendix 6.1*.

10.6.7 The scheme would cause the most adverse effects on landscape during the construction phase because of the extensive disruption to views and the landscape caused by major earthworks, vegetation removal and the presence of construction compounds, soil storage areas, haul routes and heavy plant. During construction the overall significance of landscape and visual effect caused by the entire scheme would be large adverse. In year 1 the landscape and visual effects would be lessened because construction activity would be complete, although planting would be immature and ineffective in reinstating the landscape fabric and providing visual screening. The overall significance of landscape and visual effect caused by the entire scheme in year 1 would be moderate to large adverse. In year 15, planting would be established and effective in reinstating the landscape fabric and providing visual screening. However, elements of the scheme would remain visually intrusive, out of scale with the landscape and would disrupt landscape pattern. The overall residual significance of landscape and visual effect caused by the entire scheme in year 15 would be moderate adverse.

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