Notice

This report was produced by Atkins Ltd for the Warwickshire County Council for the specific purpose of supporting an Outline Planning Application for improvements to the A46 Stoneleigh Road Junction Improvements.

This report may not be used by any person other than the Warwickshire County Council without their express permission. In any event, Atkins accepts no liability for any costs, liabilities or losses arising as a result of the use of or reliance upon the contents of this report by any person other than Warwickshire County Council.

This report has been prepared by an environmental specialist and does not purport to provide legal advice. The reader may wish to take separate legal advice.

Document history

<table>
<thead>
<tr>
<th>Job number: 5158966/5155888</th>
<th>Document ref: 5155888/LAN/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision</td>
<td>Purpose description</td>
</tr>
<tr>
<td>1</td>
<td>Issue</td>
</tr>
</tbody>
</table>

Client signoff

| Client | Warwickshire County Council |
| Project | A46 Stoneleigh Junction Improvement Scheme |
| Document title | Landscape and Visual Appraisal |
| Job no. | 5158966 |
| Copy no. | 01 |
Table of contents

Chapter          Pages
1.   Introduction  4
2.   Methodology   5
   2.1. Study Area  5
   2.2. Zone of Theoretical Visibility (ZTV)  5
   2.3. Environmental design/mitigation measures  6
3.   Existing conditions  7
   3.1. Location and Setting  7
   3.2. Planning Policy  8
   3.3. Landscape Baseline  9
   3.4. Visual baseline  11
4.   Future baseline  14
5.   Assessment of landscape and visual effects  15
   5.1. Assessment of landscape effects  15
   5.2. Assessment of visual effects  16
   5.3. Cumulative effects  19
6.   Summary of landscape and visual effects  21

Tables
Table 3-1. Relevant policies to landscape and visual appraisal ...................................................... 8
Table 3-2. Key qualities and attributes of Arden Parklands Landscape Character Area .................. 9

Figures
LVA Figure 1 Designations
LVA Figure 2 Landscape Character
LVA Figure 3 Slope gradient
LVA Figure 4 Slope Aspect
LVA Figure 5 Tranquillity
LVA Figure 6 Night Light
LVA Figure 7 Public Rights of Way and Roads
LVA Figure 8 Zone of Theoretical Visibility (ZTV)
LVA Figure 9 Receptor location plan
LVA Figures 10-15 Panoramic photography
1. Introduction

This landscape and visual appraisal has been prepared on behalf of Warwickshire County Council to consider the potential impacts of the highway improvements proposed at the Stoneleigh junction on the A46 between Coventry and Kenilworth. The existing priority junctions will be replaced by a two-bridge gyratory roundabout. The accommodation of proposed improvements will require installation of a new bridge to the east of the existing junction and realigning Stoneleigh Road and Dalehouse Lane and increasing the size of the Dalehouse Lane roundabout.

This landscape and visual appraisal (LVA) is prepared in support of an outline planning application with all matters reserved. At the application for Outline Planning Permission stage, the report does not include for a full EIA impact assessment, but more appropriately, provides a considered appraisal of the existing conditions and potential impacts of the proposed Scheme upon the landscape character and the visual receptors. The LVA has been carried out using the principles of current best practice and industry guidelines including the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) by the Landscape Institute and Institute of Environmental Management & Assessment.

The proposed highway improvements are referred throughout the report as to the ‘Scheme’, whilst “the Site” refers to the land within the red line boundary. The “study area” describes the extent of the area around the Site, where potential effects of importance may be identified.
2. Methodology

This chapter considers the two distinct but related sub-topics of landscape and visual effects.

'Landscap' takes its character from the interaction of natural and/or human factors including landform, watercourses, land use and built form, land cover/vegetation and cultural heritage influences. The pattern of landscape elements and features varies considerably, and this is a key component that makes one area distinctive from another. The assessment of landscape effects addresses potential direct changes to landscape features and direct/indirect changes to the aesthetic and perceptual qualities of the landscape.

The assessment of visual effects addresses potential changes in the quality and amenity value of existing views as a result of the change or loss of existing landscape elements, and/or the introduction of new elements, taking into account the extent to which the Scheme would be visible from visual receptors.

The A46 Stoneleigh Junction Improvements are typical highway improvements therefore an LVA has been undertaken with regard to Highways England Interim Advice Note 135/10, in the context of the more recently published Guidelines for Landscape and Visual Impact Assessment LVIA 3rd edition.

2.1. Study Area

It has been considered that a study area of 2km from the centre of the proposed Scheme would be sufficient to capture potential landscape and visual effects. Should there be any views towards the Scheme from visual receptors beyond the study area, it is considered that the effects on these receptors would not be of sufficient influence to be a material consideration. This is due to the Scheme being barely perceptible in the view, and part of a wider view which would likely already include other highways.

The extent of the study area as well as selection of visual receptors has been supported by preparation of a range of figures listed below:

- LVA Figure 1 Designations
- LVA Figure 2 Landscape Character
- LVA Figure 3 Slope gradient
- LVA Figure 4 Slope Aspect
- LVA Figure 5 Tranquillity
- LVA Figure 6 Night Light
- LVA Figure 7 Public Rights of Way and Roads
- LVA Figure 8 Zone of Theoretical Visibility (ZTV)
- LVA Figure 9 Receptor location plan
- LVA Figures 10-15 Panoramic photography

2.2. Zone of Theoretical Visibility (ZTV)

To support the identification of areas where the Scheme may influence the landscape and/or visual amenity of the area a ZTV have been produced. This was produced before the design of the Scheme was developed to identify the areas for further investigation and appraisal as the design progresses. It does not convey the nature or scale of any visibility I.E. whether visibility will result in positive or negative effects and whether these would be meaningful or not. The output of the ZTV is presented on LVA Figure 8.
A ZTV identifies the proportion of the study area over which a development could theoretically be seen. It has been produced using a Digital Surface Model (which includes buildings and vegetation) and overlaid onto a base map. The ZTV for this LVA has been created generating visibility of two points, one at each end of the A46 overbridge at a height of 10m. A 10m height enabled the identification of a worst-case extent of theoretical visibility. The output was then used on site visits and professional judgement was used to consider the potential visibility and effects of the proposed Scheme.

2.3. Environmental design/mitigation measures

Mitigation measures below have been proposed to help reduce the overall impact of improvements on both the landscape character and the visual amenity of receptors within the study area:

- Limiting vegetation removal to a minimum and where possible, prune rather than completely removing vegetation. Works to trees should be in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations;
- Gapping up and extending existing hedgerows, and planting of new hedgerows that connect with the existing hedgerow network; species of local provenance should be used, and should include trees specified as standards;
- Where practicable, introduce broadleaved tree and shrub planting on embankments and verges to mitigate the visual impact of the proposals and improve habitat connectivity through the provision of wildlife corridor links. Species of local provenance should be used, and should include trees specified as standards;
- Look for opportunities to enhance the landscape setting of the junction through the use of wildflower planting, and;
- Within operational requirements, the detailed design of structures should limit their scale and mass where possible.
3. **Existing conditions**

3.1. **Location and Setting**

The Scheme is located within Warwick District Council located half way between Kenilworth and Coventry and is at an elevation of approximately 80m AOD.

The landform around the junction is undulating, with higher ground in the north and west of the study area and lower ground associated with the River Sowe and the River Avon located in the south and east of the study area.

The Site is surrounded by mature belts of trees of varying depths, that effectively restrict the views towards the junction from the surrounding areas. Occasional gaps in tree belt occur but these are limited to field access gates. The junction is surrounded by large scale predominantly arable fields with field boundaries formed largely by hedgerows. Further away from the junction the field pattern changes to more irregularly shaped fields often adjacent to a woodland copse or a woodland belt. Belts of trees along Finham Brook form a prominent landscape feature that highlights its presence within the landscape. Most woodland belts and copses within the study area are semi-improved broadleaved woodland with some young plantations also being present.

The A46 Stoneleigh junction is set half way between urban settlements. However, the built form within the study area has more rural character with sporadic isolated farms. There are residential properties located along Dalehouse Lane to the south west of the junction. Isolated farms are present between Dalehouse Lane and the A46. Wainbody Wood Farm is located approximately 750m to the north of the junction, but separated visually by vegetation along Finham Brook and hedgerows with densely planted trees. The closest residential property Manor Fields is located approximately 500m to the north east. Further to the south-east there is a village of Stoneleigh with dispersed settlement pattern (approximately 950m away). Apart from these residential properties, the larger residential area of Gibbet Hill is located at the western edge of the study area. Stoneleigh Park (1.5km to the south) is a business park with several businesses, exhibition and conference centres focused on agriculture, surrounded by the Stoneleigh Abbey Park Grade II* Registered Park and Garden.

The water bodies within the study area are represented by Finham Brook, a lower tributary of the River Sowe which flows through Kenilworth before joining the River Sowe near Finham. Finham Brook is surrounded by a prominent woodland belt and flows just north of Dalehouse Lane in the southern part of the study area and further to the north along the A46. River Sowe, approximately 12 miles long, is a tributary of River Avon that flows in north-south direction through the eastern part of the study area to join the River Avon to the south of Stoneleigh.

The existing A46 Stoneleigh junction is set within rural landscape with countryside uses interfacing with land uses typical for a suburban fringe. The urban fringe elements within the study area include Kenilworth Golf Club, approximately 1km to the south west of the existing junction and a Sewage Works (Sherbourne House/Severn Trent Water) approximately 1.3km to the north east of the junction. Although the land use is mixed beyond the boundaries of the Site, the rural character around the Site is reinforced through the presence of woodland belts, hedgerows and hedgerow trees that combine with undulating landform to create a sense of enclosure with views of overlapping trees.
Tranquility is a term used to describe the relative sense of peace, quiet and ‘naturalness’ of the countryside. This term considers a combination of factors which have effects on our perception of tranquility, particularly related to sight and hearing. The perception of tranquility also relates to our aesthetic response to the landscape and the pleasure we gain from visiting it. According to the mapping published by the CPRE, the Site is located within area of medium tranquillity.

3.2. Planning Policy

The Site is located within the boundaries of Warwick District Council. The Warwick District Local Plan (1996 - 2011) was adopted on the 21st September 2007 and remains in force until the New Local Plan will be adopted. The Local Plan sets out a planning framework for guiding the location and level of development in the District until the new Local Development Plan will be formally adopted.

The key policies relevant to the landscape and visual amenity are summarised in Table 1-1 below.

Table 3-1. Relevant policies to landscape and visual appraisal

<table>
<thead>
<tr>
<th>Policy</th>
<th>Summary of Policy Content</th>
</tr>
</thead>
</table>
| Warwick District Local Plan (1996 – 2011) | "Development will only be permitted which positively contributes to the character and quality of its environment through good layout and design. Development proposals will be expected to demonstrate that they:-
   a) harmonise with, or enhance, the existing settlement in terms of physical form, patterns of movement and land use;
   b) relate well to local topography and landscape features, including prominent ridge lines;……..
   d) reflect, respect and reinforce local architectural and historical distinctiveness;
   e) enhance and incorporate important existing features into the development;................
   h) integrate with existing paths, streets, circulation networks and patterns of activity;...........
   Development proposals which have a significant impact upon the character and appearance of an area will be required to demonstrate how they comply with this policy by way of a Character Appraisal and Design Statement. |

Policy DP2

Amenity

"Development will not be permitted which has an unacceptable adverse impact on the amenity of nearby uses and residents and/or does not provide acceptable standards of amenity for future users/occupiers of the development."

Policy DP3

Natural and Historic Environment and Landscape

"Development will only be permitted which protects important natural features and positively contributes to the character and quality of its natural and historic environment through good habitat/landscape design and management. Development proposals will be expected to demonstrate that they:
   c) protect and enhance the landscape character of the area, particularly respecting its historic character;
   d) provide appropriate levels of amenity space which incorporate suitable habitat features and hard and soft landscaping;
   e) integrate the amenity space and proposed landscaping into the overall development;
   f) secure the long term management and maintenance of habitat/landscape features; and
   ............
   Development proposals which have a significant impact upon the character and appearance of an area will be required to demonstrate how they comply with this policy by way of a Nature Conservation and Landscape Analysis. Where adverse impacts are unavoidable, the Council may consider possible mitigation measures to reduce any harm caused by these adverse impacts. Where mitigation measures are not possible, compensation measures may be appropriate."

Policy SC4

Supporting Cycle and Pedestrian Facilities

"Development will not be permitted which would have an unacceptable adverse impact upon, or prejudice the implementation of, new or improved cycle and pedestrian routes identified in the Warwickshire Local Transport Plan 2006, or the continuity of any existing cycle and pedestrian routes. Development of cycle and pedestrian facilities will be permitted provided the benefits in terms of -encouraging cycling and walking outweigh any adverse impacts."

Policy DAP 8

Protection of

"Development will be required to preserve or enhance the special architectural and historic interest and appearance of Conservation Areas as defined on the Proposals Map. Development will also be expected to respect the setting of Conservation Areas and important views both in and out of them."
Policy | Summary of Policy Content
--- | ---
Conservation Areas | Detailed plans shall be submitted for all types of applications involving building works in Conservation Areas, including a full specification of building materials and finishes to be used, to demonstrate how they comply with this policy. Notification of works to trees in Conservation Areas will also be required.

Policy DAP 11 Protecting Historic Parks and Gardens | “Development will not be permitted if it would harm the historic structure, character, principal components and setting of Parks and Gardens of Special Historic Interest included in the English Heritage Register, as defined on the Proposals Map. Development will be strongly resisted if it would harm the historic structure, character, principal components and setting of locally important historic parks or gardens included in the Warwick District Local Register.”

### 3.3. Landscape Baseline

At the regional level Warwickshire County Council has published Warwickshire Landscape Guidelines (November 1993), which maps and describe the special characteristics of each of the County’s seven landscape character areas. Most of the study area falls within the boundaries of the Arden Parklands Landscape Character Area and the Site itself is located within a landscape Enhancement Zone. The extent of the character area and Enhancement Zone are illustrated on LVA Figure 2 and Table 1-2 lists key characteristics and attributes of Arden Landscape Character Area as identified within the Warwickshire Landscape Guidelines.

#### Table 3-2. Key qualities and attributes of Arden Parklands Landscape Character Area

<table>
<thead>
<tr>
<th>Arden Parklands – Landscape Character Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall character and qualities:</strong> An enclosed, gently rolling landscape defined by woodland edges, parkland and belts of trees.</td>
</tr>
</tbody>
</table>

**Characteristic features:**

- Middle distance views enclosed by woodland edge;
- Belts of mature trees associated with estate lands;
- Many ancient woodlands;
- Large country houses set in mature parkland;
- Remnant deer parks with ancient pollard oaks, and;
- Thick roadside hedgerows, often with bracken.

**Management strategy:** Retain and enhance the effect of wooded enclosure.

The Arden region was once an area of wood pastures and ancient farmlands. Although there are few dramatic physical features, the Arden countryside has an intimate and historic character. Medium sized fields are typical for the rolling topography. The typical dispersed settlement pattern for Arden landscape is closely related to agricultural development linked by narrow lanes and footpaths that expanded to link farms and hamlets.

Replanted woodlands dominate within the study area, and although their value is lower in comparison to Ancient Woodlands they often have been replanted in their original locations.
with rich ground flora and fauna. Most woodlands are oak dominated, but a substantial proportion particularly of woodlands were replanted with mixed broadleaved and coniferous species. Elsewhere trees are largely scattered but in a combination with hedgerows they often resemble a wooded character.

Hedgerows are a prominent feature of the Arden field pattern. Ancient and mixed hedgerows are often more than two meters wide. Currently majority of grassland is unimproved, however there are still remnants of unimproved grassland, rich in flowering plant species. Most lanes and trackways are frequently defined by a thick hedgerow.

Field ponds are another characteristic feature within the study area, however these were not identified through a site visit or desktop studies.

The part of the character area where the Site is located comprises a small-scale landscape with many rounded hills, steep scarps and small incised valleys. Landform rarely dominates but includes hilltop woodlands and wooded scarps. The field pattern creates a strong sense of enclosure that influence the views. They are often restricted by thick roadside hedgerows, allowing for short to medium distance views with a background created by woodland – any major breaks in continuity would have the effect of opening distant views which would distort the scale of the landscape. Only occasional views are available from hilltops and ridgelines.

The existing levels of lighting at night are shown on LVA Figure 6, based on the data provided by Campaign to Protect Rural England (CPRE). This shows the Site being in an area of moderate light levels although relatively dark in comparison to the more urban locations within the surrounding area.

Designations within the area that contribute to the local landscape character are shown on FIGURE 1 and described below.

**Green Belt (Warwick District Local Plan)** – The Scheme lies within the Green Belt area identified within the Warwick District Local Plan. However, as Green Belt is a planning designation rather than an explicit indication of landscape quality or value, the effects on this designation are not assessed within this LVA.

**Ancient and Semi-Natural Woodland** – Some blocks of Ancient Woodland occur within the study area but are located outside of the Site.

**Stoneleigh Conservation Area** – The conservation area of Stoneleigh is a positive feature of the landscape, it has a clearly defined centre around The Green with a number of roads leading into the village which help to define its character. The buildings are largely brick, with some timber framed and sandstone buildings. Important views from within the conservation area are primarily in a southerly direction.

**Stoneleigh Abbey, Grade II* Registered Park and Garden** – The Garden has been created on the site of a medieval abbey, with a history of improvements, currently covering early-19th-century landscape garden and park covering about 365 hectares, with 19th-century formal terraces adjacent to a mainly 18th-century house.

**Wainbody Wood & Stivichall Common, Kenilworth Road Spinney Local Nature Reserve** – The wood is rich with flowers, including bluebells, and maturing trees. It includes surfaced paths with guide rails suitable for disabled and crossed by a bridle way, which continues through part of Kenilworth Road Spinney. The LNR can be viewed by car or foot from Kenilworth Road.
The Site itself consists of a grade separated junction between the A46 and Stoneleigh Road. The A46 has six lanes of traffic at this location separated by a central reservation. It is located within a cutting with is covered to some degree by trees and shrubs on either side to create an enclosed corridor. The slip roads from the A46 rise up the cutting towards giveaway junctions on Stoneleigh Road, they are well screened on the outer edges of the road corridor by a dense belt of planting. Stoneleigh Road crosses the A46 on a two-lane bridge with lighting columns at either end.

To the south and the north, Stoneleigh Road is well enclosed by belts of trees and shrubs except for a view north between a gap in vegetation across the farmland beyond from the northern junction. Further north along Stoneleigh Road is the roundabout at the junction with Dalehouse Lane. There are a number of lighting columns associated with this junction but the characteristic of dense tree and shrub planting around the road corridor remains. North of the roundabout, Stoneleigh Road crosses Finham Brook and an area of wet woodland is located immediately to the east of the road along the southern edge of the Brook. Beyond the roadside vegetation within the Site are arable agricultural fields.

### 3.4. Visual baseline

Visually, the study area is characterised by high degree of enclosure. The A46 is a dominant man-made feature cutting through the study area from the south-west to the north-east. The A46 Stoneleigh Junction and its approaches are separated from the surrounding landscape by continuous wide belt of mature trees with occasional gaps. A gently rolling landform with a network of hedgerows with trees reinforce further the sense of enclosure.

The presence of water bodies like Finham Brook and the River Sowe with belts of trees form distinct landscape features that reinforce visual barriers. The views from residential edge of Kenilworth towards the Site are screened by belts of trees within Kenilworth Golf Club and other visual barriers overlapping in the views, including landform. Similarly, the views from the southern edge of Coventry are screened by rolling landform with field boundary vegetation and tree belts along Finham Brook with belts of trees around the existing hamlets.

The key visual receptors would be associated with residents of scattered hamlets and users of Centenary Way Long Distance Path (LDP). Below there is a list of key visual receptors, their locations are mapped on LVA FIGURE 9 and photographs from each location are presented on LVA FIGURE 10-15.

**Receptor 1: Views to the north from the A46 Stoneleigh junction overbridge on Stoneleigh Road.**

This view is representative for users of Birmingham Road and pedestrians using Centenary Way LDP.

The views from the bridge are enclosed in both direction. A dense belt of mature trees and understorey shrubs create a visual barrier obstructing visual permeability. The view is dominated by the existing road corridor with tree belts reinforcing visibility of the A46. In the background, there are views of agricultural fields with few properties at the King’s Hill area.

**Receptor 2: Views from the residential property at Brook Farm.**
The views from the house are screened by vegetation along Finham Brook and ancillary buildings associated with the farm. There are no views of the junction from this residential property.

**Receptor 3: Views from Kingswood House located on Dalehouse Lane towards the existing Stoneleigh Road roundabout.**

Open views towards the Stoneleigh Junction are available from Kingswood House, however views of the junction are screened by a belt of trees around the perimeter of the junction. In addition, the main aspect of the view is orientated away from the junction. A hedgerow with some hedgerow trees at the perimeter of the garden screens further the view from this location.

**Receptor 4: Views to the north east from the residential property on Dalehouse Lane opposite Kingswood Farmhouse.**

The views from this location are representative for adjacent residential properties along Dalehouse Lane. The views of residents are screened completely by garden vegetation with trees or field boundary vegetation. In addition, raised topography of agricultural fields to the south reinforces the screening effect.

**Receptor 5: Views to the north east from the Centenary Way LDP.**

The views from Centenary Way vary along its length, however even at a relatively close distance to the Stoneleigh Junction (approximately 770m away to the south west), the view is enclosed completely by field boundary vegetation with trees close to Kingswood Farmhouse.

**Receptor 6: Views to the north east from the Centenary Way LDP near Kingswood Farm towards the A46 Stoneleigh Junction.**

The views of the Stoneleigh Junction are blocked by the existing belts of trees, however the presence of nearby road corridor is perceptible. A clear intervention within the original landform that accommodated the junction in the past through creation of a cutting as well as planting with a mix of native and non-native tree species as well as shrubs. The views towards the junction are blocked completely.

**Receptor 7: Views to the south east from Newera Farm.**

Newera Farm is a modern farm that combines the variety of land uses including agricultural fields with ancillary buildings as well as some offices adjacent to King’s Hill Lane. The residential property within the farm is located on raised landform, however the views from the residential property are screened by woodland blocks, single trees and hedgerows with densely planted trees completely the views towards the junction.

**Receptor 8: Views to the south west from Kings Hill Farm.**

Partial views towards the Stoneleigh Junction are available from residential property within the Kings Hill Farm. The views are partially screened by trees close to the property. In the distance, the screening is created by trees along the A46.

**Receptor 9: Views to the south west from a group of residential properties located at the top of the King’s Hill.**
The main aspect of the view is orientated away from the Stoneleigh Junction. Some views are available from the upper storey windows towards the section of the A46 to the north of the Stoneleigh junction, but these are partial and filtered.

**Receptor 10: Views to the south west from Manor Fields Farm.**

The views are blocked by a belt of trees close to the Manor Fields farm and close to the house but also further away along the A46 and therefore there will be no change to the views.

**Receptor 11: Views to the north west from residential properties located at Acorn Close.**

The view extends across the residential street towards other residential properties and garden vegetation/fencing with views across open agricultural land beyond, curtailed by the rising ground and vegetation alongside the B4115.

**Receptor 12: Views to the north west from the Centenary Way LDP at the northern edge of Stoneleigh.**

The views are screened completely by a combination of trees and hedgerows as well as by rising landform towards the Stoneleigh Junction.

**Receptor 13: Views from the B4115 at the edges of Stoneleigh Park to the north towards the A46 Stoneleigh Junction.**

The views towards the Stoneleigh Junction are blocked completely by intervening vegetation and raised topography.

**Receptor 14: Views to the north from the residential property at Crewe Farm.**

There are no views towards the Stoneleigh Junction from Crewe Farm as they are blocked by overlapping vegetation and raised topography between the Farm and the junction.

**Receptor 15: Views from B4115 near Stoneleigh Abbey, to the north, representative for Stoneleigh Abbey, Grade II Registered Park and Garden.**

There are no views towards the Stoneleigh Junction as they are screened by tree belts along the B4115 and overlapping vegetation between Stoneleigh Park and the Stoneleigh Junction.
4. Future baseline

A section of the proposed HS2 project has been identified as relevant development for future baseline. The planning process for the approval of relevant Country North section culminated in gaining of the Royal Ascent to the HS2 Hybrid bill granted on 23rd February 2017.

The relevant design drawings associated with the HS2 route were used as a basis of the assessment are listed below:

- **Drawing title:** Main Line Sheet 38, Chainage 140+300 to 146+700, **Design Stage:** Final Preliminary Design, **Drg.No.:** C223-CSI-CV-DPP-030-000005-FPD, Rev P01, and;
- **Drawing title:** Main Line Sheet 37, Chainage 133+900 to 140+300, **Design Stage:** Final Preliminary Design, **Drg.No.:** C223-CSI-CV-DPP-030-000004-FPD, Rev P01.

It has been identified that a section of the route between Kenilworth Road (chainage: 142+500) and Stoneleigh Road near Stoneleigh Park (chainage 139+500) is relevant for the LVA.

The majority of the proposed HS2 route runs in the cutting through the study area. These are locally flanked by false embankments that help to blend the Scheme into the landscape. There are several overbridges proposed to accommodate vehicular traffic, where the route crosses local roads and these include: Dalehouse Lane Overbridge, A46 Kenilworth Bypass Overbridge, B4115 Ashow Road Overbridge and the B4114 Stoneleigh Road Green Overbridge. The River Avon viaduct is proposed close to Stoneleigh Park.

The proposed environmental design measures include large scale woodland planting and grassland seeding that links to the existing field pattern with dense woodland and hedgerow cover. Overall the introduction of the route would alter the tranquillity, land use and landscape pattern including pattern of vegetation through construction operations and introduction of new elements of the route in the operational stage.

It is expected that some features of the route would become visible in some locations, however most of the views are likely to encompass only a short section of the route or element of the route.
5. **Assessment of landscape and visual effects**

The improvement works to the A46 Stoneleigh junction are centred on and around the existing road corridor. The Scheme is generally similar in nature to the existing junction but increased in extent with an additional bridge structure. As such, it is considered that the landscape has some capacity to accommodate this type of change.

A new gyratory lies at the heart of the proposal with two overbridges that would incorporate the existing overbridge as the southern/western overbridge. The alterations to the junction would require creation of new approaches to the north. A larger roundabout is proposed at the junction of Stoneleigh Road and Dalehouse Lane on a slightly different footprint.

The associated landscape scheme includes the provision of mitigation planting to screen and re-integrate the Scheme into the wider landscape and restore the visual appearance of the Site from surrounding areas. Planting includes an area of wet woodland planting to join with the existing wet woodland area south of Finham Brook. Throughout the Site, wildflower planting would be implemented on roadside verges outside of required visibility splays that will add to the amenity of the location and create seasonal interest.

5.1. **Assessment of landscape effects**

**Construction**

During the construction phase, landscape changes would be generated and are likely to include the temporary introduction and operation of a variety of construction plant such as cranes, the introduction of a site compound, materials layout and storage areas, security fencing and signage. Machinery used on site is likely to include lorries, dozers, pay loaders, hydraulic excavators as well as concrete mixer lorries.

Another change during the construction period would be the loss of stretches of trees and shrubs within the corridor of the A46 along the slip roads to the north, and between the existing roundabout and Stoneleigh Junction.

During construction, the landform would be altered minimally, although some new earthworks would be created to tie-in the Scheme to the surrounding topography. The presence of the construction compound area itself, would also create a temporary alteration to the local landscape character. It is expected that construction activities would temporarily reduce the tranquillity of the surrounding landscape.

Overall, these likely temporary activities could generate a sense of disturbance the magnitude of which would periodically vary in response to different activity phases. A noticeable change is expected due to the dynamic and scale of construction operation that would temporarily transform the local landscape character within, and immediately around, the Site. Therefore, the effects on landscape character are judged to be temporary moderate adverse during the construction stage.

**Operational**

The operational effects of the proposed Scheme on the landscape character of the area are predicted to be limited, as the proposed configuration of the junction creates only a minor alteration to the existing baseline scenario in landscape terms.
The direct landscape effects would be limited and contained within the Site, whilst indirect landscape effects upon existing landscape character would unlikely to extend beyond its immediate environs. The existing land use would change marginally through the extension of highway land use, whilst agricultural land use would be slightly reduced.

Once mitigation planting is established, it is expected that introduced environmental design/mitigation measures in form of woodland planting would largely recreate the existing landscape pattern and enhance existing landscape and ecological corridors where possible. The wildflower planting proposed around the junction could be considered an enhancement in landscape terms, although this would be outweighed by the changes to the infrastructure in the surrounding area.

It is expected that any change to tranquillity of the landscape would be barely noticeable as the introduced elements of the Scheme are located around the existing road corridor, it is not expected that the levels of tranquillity reported at the baseline scenario would be altered.

Overall, a minor change is expected as the Scheme with introduced environmental design measures is expected in the operational phase. A barely perceptible alteration to the key characteristics of the character area is expected. Although new man-made elements of the highways would be introduced, they would be largely characteristic for the baseline highway environment. It is therefore judged that the Scheme would result in sight adverse effects on landscape character.

5.2. Assessment of visual effects

Receptor 1: Views to the north from the A46 Stoneleigh junction overbridge on Stoneleigh Road.

Construction: Views of construction machinery, earthworks formation, deliveries in and out of the site will be prominent in views from the overbridge. The views of construction activities at a short distance would dominate temporarily large proportion of the view. It is judged that this would result in large adverse effects.

Year 1: The introduced roundabout junction and earthworks, as well as the absence of roadside vegetation in some locations, would create a noticeable alteration to the baseline view. Any new planting would not yet be established. As a result, moderate adverse effects are expected.

Year 15: By year 15 it is expected that incorporated environmental/mitigation design measures including woodland planting on earthworks would mature to replicate the baseline landscape setting of the junction except for the new Stoneleigh roundabout and view across to the new bridge crossing the A46. This would result in slight adverse effects.

Receptor 2: Views from the residential property at Brook Farm.

Construction: It is expected that some views of construction machinery would be available from the residential property or the curtilage of the dwelling. Construction activities would become a noticeable feature or element of the view resulting in moderate adverse effects.

Year 1: Localised changes to the highway in the vicinity of the property and the removal of vegetation would be noticeable and mitigation planting would not yet be mature enough to
be effective to restore baseline features of the view. As a result, *slight adverse* effects are expected.

**Year 15:** The views towards the key elements of the proposed Scheme that are being introduced would be screened. The widening of Stoneleigh Road at the approach to new roundabout on Stoneleigh Road would be discernible but not change the overall context of the baseline view. As a result, *negligible adverse* effects are expected.

**Receptor 3:** Views from Kingswood House located on Dalehouse Lane towards the existing Stoneleigh Road roundabout.

**Construction:** The retention of vegetation along the western edge of the Site means that construction activities would be partially visible beyond the vegetation in the context of traffic on the existing road corridor. Therefore, the effects would be *slight adverse.*

**Year 1:** As a result of the retention of vegetation along the western edge of the Site it is judged that the overall context of the baseline view would remain although it may be possible to identify some incremental changes to the view. As a result, the effects are judged to be *negligible adverse.*

**Year 15:** Effects would remain as year 1.

**Receptor 4:** Views to the north east from the residential property on Dalehouse Lane opposite Kingswood Farmhouse.

**Construction:** *Negligible adverse* effects are expected during construction but these will be limited to views of construction activities or views of the upper sections of cranes from this location.

**Year 1:** There would be *no change* to the view as they will be blocked by raising landform to the east towards the junction. There are also no visual links with the section of Dalehouse Lane that would be improved as part of the Scheme.

**Year 15:** Effects would remain as year 1.

**Receptor 5:** Views to the north east from the Centenary Way Long Distance Path.

**Construction:** There would be *no change* as a result of the Scheme as views from this section of LDP are fully screened by vegetation, topography and buildings associated with Kingswood Farmhouse.

**Year 1:** Effects would remain as during construction.

**Year 15:** Effects would remain as during construction.

**Receptor 6:** Views to the north east from the Centenary Way LDP near Kingswood Farm towards the A46 Stoneleigh Junction.

**Construction:** *Negligible adverse* effects are expected during construction but these will be limited to views of construction activities or views of the upper sections of cranes from this location beyond existing vegetation.

**Year 1:** There would be *no change* to the view as the intervening vegetation would be retained. There are also no visual links with the section of Dalehouse Lane that would be improved as part of the Scheme.
Year 15: Effects would remain as year 1.

**Receptor 7: Views to the south east from Newera Farm.**

**Construction:** There would be no change as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

Year 1: Effects would remain as during construction.

Year 15: Effects would remain as during construction.

**Receptor 8: Views to the south west from Kings Hill Farm.**

**Construction:** A barely perceptible change in the view would be available from upper storey windows of the residential property. The views would be changed temporarily and at a distance that would make it difficult to recognise specific construction activities. The views would be partial with construction activities forming small proportion of the view in the background. As a result, there would be slight adverse effects.

Year 1: A slight adverse change in the view is expected from this receptor primarily as a result of vegetation removal to the north of the existing slip road. Due to the distance from the receptor these would be barely perceptible and occupying a small proportion of the view. The Scheme would resemble from the distance the existing Scheme.

Year 15: The incorporated environmental/mitigation design measures would mature to provide screening to the Scheme that would appear similar to the baseline view from the receptor at this distance resulting in negligible adverse effects.

**Receptor 9: Views to the south west from a group of residential properties located at the top of the King’s Hill.**

**Construction:** There would be no change as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

Year 1: Effects would remain as during construction.

Year 15: Effects would remain as during construction.

**Receptor 10: Views to the south west from Manor Fields Farm.**

**Construction:** There would be no change as a result of the Scheme as views would be fully screened by intervening vegetation.

Year 1: Effects would remain as during construction.

Year 15: Effects would remain as during construction.

**Receptor 11: Views to the north west from residential properties located at Acorn Close at the western and of Stoneleigh.**

**Construction:** There would be no change as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

Year 1: Effects would remain as during construction.

Year 15: Effects would remain as during construction.
Receptor 12: Views to the north west from the Centenary Way LDP at the northern edge of Stoneleigh.

**Construction:** There would be **no change** as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

**Year 1:** Effects would remain as during construction.

**Year 15:** Effects would remain as during construction.

Receptor 13: Views from the B4115 at the edges of Stoneleigh Park to the north towards the A46 Stoneleigh Junction.

**Construction:** There would be **no change** as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

**Year 1:** Effects would remain as during construction.

**Year 15:** Effects would remain as during construction.

Receptor 14: Views to the north from the residential property at Crewe Farm.

**Construction:** There would be **no change** as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

**Year 1:** Effects would remain as during construction.

**Year 15:** Effects would remain as during construction.

Receptor 15: Views from B4115 near Stoneleigh Abbey, to the north, representative for Stoneleigh Abbey, Grade II Registered Park and Garden.

**Construction:** There would be **no change** as a result of the Scheme as views would be fully screened by intervening vegetation and topography.

**Year 1:** Effects would remain as during construction.

**Year 15:** Effects would remain as during construction.

5.3. **Cumulative effects**

A cumulative landscape effect can either be a direct physical effect on the fabric of the landscape or a change to the character of the landscape as a result of the combined impacts of more than one development.

The proposed HS2 route would result in the implementation of a new piece of linear infrastructure through the landscape, resulting in adverse effects at this location. However, the nature of the effects of HS2 are different to those of the proposed Stoneleigh Junction Improvements Scheme and it is judged that the landscape effects of the Scheme would not be increased or decreased as a result of the presence or absence of HS2.

A cumulative visual effect is a change in views and visual amenity as a result of combined changes of more than one development. Visual effects can arise from the views of two or more developments within a view. They can be seen within the same direction of view, successively by turning one’s head or from sequential locations as the receptor travels through the landscape.
Whilst both HS2 and the proposed Scheme would be visible to some receptors (including the Centenary Way LDP) it is judged that the presence of HS2 would not increase the level of effects reported as a result of each development in its own right. This is as a result of HS2 being in a different proportion of the view to the proposed Scheme, not visible from the receptor and the limited scale of change to the visual amenity as a result of the proposed Scheme.
6. **Summary of landscape and visual effects**

The Scheme would constitute a noticeable alteration to the existing junction, however the Scheme would take place in the context of the existing highway infrastructure at this location.

During the construction stage, key landscape effects are associated with loss of vegetation that is planted along the road corridor and the approaches and subsequent presence of construction plant and operations within the area which would temporarily reduce tranquillity of the landscape. **Moderate adverse** effects on landscape character were identified at the construction stage.

During operation, it is judged that the effects on landscape would be reduced to **slight adverse**. The operational adverse effect is due to the increase in the presence and footprint of highway infrastructure within the area, however the mitigation planting proposed as part of the Scheme would become established to integrate the Scheme into the landscape to a similar degree to the baseline arrangement with wildflower planting around the junction providing a positive new feature.

Visual effects during construction would be limited to visual receptors located within close proximity to the Scheme. **Large adverse** effects are expected for Receptor 1 (users of the Centenary Way LDP from the A46 overbridge), this change is primarily due to the receptor being located within the Site itself and therefore experiencing a direct close proximity view of the construction activities taking place. **Moderate adverse** effects are expected for residents of Receptor 2 (Brook Farm) as it is expected that construction operations associated with the northern end of the Scheme would be visible in close proximity. All other receptors were identified as having effects of **slight adverse**, **negligible adverse** or **no change** as a result of the Scheme, this is due to the presence of undulating topography alongside the presence of intervening vegetation and buildings restricting views towards the Scheme.

During operational visual effects of **moderate adverse** were identified for Receptor 1 (users of the Centenary Way LDP from the A46 overbridge) in Year 1 due to the increase in the prominence of highway infrastructure within the view and the immature nature of mitigation planting. However, by Year 15 these effects would reduce to **slight adverse**, as the planting would have matured to restore the broad characteristic of the baseline view. All other receptors were identified as having effects of **slight adverse**, **negligible adverse** or **no change** as a result of the Scheme, this is due to the presence of undulating topography alongside the presence of intervening vegetation and buildings restricting views towards the Scheme.

As a result of the LVA process, and considering identified effects, it is generally considered that the Site and surrounding landscape has a capacity to accommodate the proposed Scheme without compromising key qualities of landscape resource and without adversely effecting a large number of visual receptors. Where temporary or Year 1 effects have been identified, these are able to be mitigated through new planting to restore the broad characteristics of the baseline condition by Year 15.