

IDI Gazeley UK Ltd  
**Magna Park Extension: Hybrid Application**

ES Chapter 9 Landscape and Visual Effects

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## 9 Technical ES Chapter

### 9.1 Introduction

- 9.1.1 Nicholas Pearson Associates has been commissioned to undertake a Landscape and Visual Impact Assessment (LVIA) on behalf of IDI Gazeley UK Limited in support of a hybrid planning application for the proposed extension of Magna Park onto 232 Hectares (ha) of land adjoining and linked to Magna Park, to the north west (Zone 1) and onto 7ha of land adjoining Magna Park to the south of the A4303 (Zone 2). Details of the planning application proposals being submitted, the site location and a site description are set out in ES Volume 2, Chapter 2 of the environmental statement.
- 9.1.2 The purpose of the landscape and visual impact assessment (LVIA) is to provide information to the competent authority regarding the potential landscape character and visual impacts and the significance of the effects of the proposal.
- 9.1.3 The specific objectives of this LVIA are as follows:
- to identify, describe and evaluate the landscape character of the two parts of the Site and their surroundings;
  - to determine the sensitivity of the landscape to the proposed development;
  - to describe the visual context of the proposals and identify potential visual receptors (i.e. people who would be able to see the scheme) and evaluate their sensitivity to the proposed development;
  - to identify and describe the changes which would result from proposed development in so far as they affect the existing landscape and/or views experienced and to determine the resulting magnitude of impact; and
  - to assess the level of landscape and visual effects arising from the proposed development and their potential significance.

### 9.2 Policy and Guidance

- 9.2.1 The planning history for the Site is contained within **ES Volume 2, Chapter 3** and within the Planning Statement that accompanies the application. Planning policy is also covered in detail in **ES Volume 2, Chapter 3**. The following section provides a brief summary of the planning policy context as it specifically relates to issues of landscape character and visibility. The planning statement provided in support of the application also specifically covers the schemes compatibility with the planning policy context and references the wider planning policy framework including policies CS7h and CS17.

## NPPF

9.2.2 [Insert text here] National planning policy in England is contained within the National Planning Policy Framework (NPPF) which was published in March 2012. The specific policies of the NPPF that relate to issues of landscape character and visual impact are set out below.

9.2.3 One of the 12 core principles in **paragraph 17** of the NPPF states that plans and decisions should:

*“take into account the different roles and character of different areas’ and recognise ‘the intrinsic character and beauty of the countryside.”*

9.2.4 **A ministerial statement** to the planning inspectorate on the 27<sup>th</sup> March 2015 reminded the planning inspectorate of the above principle stating its purpose as being:

*“to ensure that development is suitable for the local context.”*

9.2.5 To identify, describe and evaluate the landscape character of the site and its’ surroundings as it currently is, and would develop – the existing baseline. The Minister of State for Housing and Planning also stated in this correspondence that:

*“While National Parks, the Broads, Areas of Outstanding Natural Beauty and Heritage Coasts quite rightly enjoy the highest degree of protection, outside of these areas the impact of development on the landscape can be an important material consideration.”*

9.2.6 **Paragraph 58** states that:

*“planning policies and decisions should aim to ensure that developments are visually attractive as a result of good architecture and appropriate landscaping.”*

9.2.7 **Paragraph 61** notes that:

*“although visual appearance and the architecture of individual buildings are very important factors, securing high quality design goes beyond aesthetic considerations. Therefore, planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment.”*

9.2.8 **Paragraph 109** of the NPPF goes on to state that:

*“the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes.”*

## PPG

9.2.9 In March 2014, the Government announced the launch of the Planning Practice Guidance (PPG) website. The PPG is intended to be read alongside the NPPF and we set out below the guidance that is most relevant to considerations of landscape character and visual impact.

9.2.10 **Paragraph 001** (ID: 8-001-20140306) addresses the assessment of landscape character. It advises that landscape character assessments should be prepared to complement Natural England’s National Character Area profiles. Landscape Character Assessment should help to

understand the character and local distinctiveness of the landscape and identify the features that give it a sense of place.

- 9.2.11 Rugby, the adjoining borough, contains an area of designated Green Belt the furthest extent of which is 0.15 km from the Site, at its closest point. Policy CS1 of Rugby BC's 2011 Core Strategy applies national Green Belt policy to the borough's Green Belt.

### Core Strategy

- 9.2.12 The development plan comprises the adopted Harborough District Core Strategy (2011) and the saved policies of the Harborough District Local Plan (2001). We set out below the relevant local planning/development plan policy in respect of landscape character and visual issues.
- 9.2.13 **Policy CS11** of the Core Strategy has parts that are relevant to landscape planning, design and cultural heritage, this states that:

*"In recognition of the importance of good design and the built heritage of the District, the highest standards of design in new development will be sought to create attractive places for people to live, work and visit. This will be achieved in the following way:*

- a) *Development should be inspired by, respect and enhance local character, building materials and distinctiveness of the area in which it would be situated. Proposals which are rich in architectural detail, individual, yet sympathetic to the local vernacular will be particularly supported. In areas with particularly high heritage value (such as Conservation Areas), new development should be sympathetic to those characteristics that make these places special.*
- b) *All development should respect the context in which it is taking place and respond to the unique characteristics of the individual site and the wider local environment beyond the site's boundaries to ensure that it is integrated as far as possible into the existing built form of the District. New development should be directed away from undeveloped areas of land which are important to the form and character of a settlement or locality.*
- c) *Development should be well planned to:*
  - i) *Incorporate safe and inclusive design, suitable for all to access;*
  - ii) *Make the most of local built and natural assets;*
  - iii) *Be of a scale, density and design that would not cause damage to the qualities, character and amenity of the areas in which they are situated;*
  - iv) *Ensure that the amenities of existing and future neighbouring occupiers are safeguarded;*
  - v) *Reflect the landscape or streetscape in which it is situated and include an appropriate landscaping scheme where needed;*
  - vi) *Enable adaptation, allowing for mixed uses with the potential to change use where appropriate;*

- vii) Enable adaptation, ensuring suitability for today's users and capability for alteration to suit users in a future changing climate;*
- viii) Where appropriate, encourage travel by a variety of modes of transport;*
- ix) Minimise waste and encourage re-use and recycling wherever possible.*
- d) *Heritage assets within the District, and their setting, will be protected, conserved and enhanced, ensuring that residents and visitors can appreciate and enjoy them through:*
  - i) Supporting proposals for the statutory listing of buildings where it can be demonstrated that the buildings meet the criteria for designation;*
  - ii) Realising and actively seeking opportunities within the planning process to secure the viable and sustainable future of heritage assets at risk of neglect or loss, especially where this supports tourism or business development, providing such development is consistent with the significance of the heritage asset;*
  - iii) Ensuring development in existing Conservation Areas is consistent with the special character as described in the Statement or Appraisal for that Area, keep these Areas under review and work with local communities to appraise other areas of special architectural or historic interest in the towns, suburbs and villages of the District to inform potential designation of additional Conservation Areas;*
  - iv) Safeguarding Scheduled Monuments and non-scheduled nationally important archaeological remains, and other areas of archaeological potential or importance and areas of historic landscape;*
  - v) Encouraging improved access to buildings and places of heritage for local people and visitors;*
  - vi) Identifying heritage assets of local importance;*
  - vii) Promoting and managing Foxton Locks and the Grand Union Canal as a tourism attraction and key strategic Green Infrastructure corridor in line with the Conservation Plan and Heritage Partnership Agreement."*

9.2.14 **Policy CS14** is specific to the Lutterworth area and states that:

*"the principal of a separation area will be maintained between Magna Park, Bitteswell and Lutterworth to ensure the retention of identity and distinctiveness of these nearby places."*

9.2.15 **Policy CS17** addresses development in the countryside and states that:

*"rural development will be located and designed in a way that is sensitive to its landscape setting, retaining, and where possible, enhancing the distinctive characteristics of the landscape character area in which it is situated."*



### Saved LP Policies

- 9.2.16 **Policy EV/3** seeks to protect the separation of settlements, in three defined areas, including between Lutterworth, Bitteswell and Magna Park. The Council will refuse planning permission for development that would adversely affect the predominantly open character of land, or result in a reduction of open land separating these settlements.
- 9.2.17 **Policy EV/5** requires that any new buildings are sited in a position that minimises their impact and that development schemes are accompanied by landscape proposals appropriate to their siting and location.
- 9.2.18 **Policy EV/20** states the Council will require detailed planning applications to be accompanied by a landscape scheme where appropriate. This should seek to retain existing landscape features where this is desirable and practical. For an outline planning application the Council will require landscape appraisal and the definition of landscape principles where the proposed development would have a considerable impact on its surroundings.

### Guidance Specific to the Topic

- 9.2.19 Harborough District Council has prepared supplementary planning guidance notes which are of relevance to the landscape planning and design of the Site and in respect of lighting design. These include:

*SPG Note 1: Design Principles to be applied in Harborough District*

*SPG Note 7: Industrial and Commercial design and layout criteria*

*SPG Note 9: Landscape and new development*

*SPG Note 10: Trees and Development*

*SPG Note 11: Hedges and development*

*SPG Note 12: Lighting in Town and Country*

### Designations

- 9.2.20 **ES Volume 3, Technical Appendix F.1, Figure 9.1** shows the planning policy context and designations associated with the Site and the defined study area. There are no specific landscape designations that apply to the land within the Site, or within the study area. The proposed development does not directly impact upon the Borough of Rugby Green Belt to the west of the A5 Watling Street, or the defined NPPF aim and purposes of Green Belts. **Figure 9.1** shows the location of the three scheduled monuments, some listed buildings and two conservation areas, in the vicinity of the Site.
- 9.2.21 The scheduled monument site of the deserted medieval village Bittesby is located within the main, Zone 1, part of the Site and there is some intervisibility predicted between parts of the monument and the proposed development.
- 9.2.22 The Ullesthorpe Moat Scheduled Monument is located 1km off site to the north in the tributary valley of the Soar beyond the deserted Rugby to Leicester railway line and has some limited intervisibility with the Zone 1, part of the application Site. Further to the north at a distance of

1.5km is the Moat Scheduled Monument at Claybrooke Parva which has no intervisibility with the Site due to the intervening landform and dense vegetation. The scheduled monument of Venonis, at High Cross, at 2.75km has some very limited partial intervisibility with the upper parts of the site over a significant distance and through and over vegetation which restricts the potential for any predicted intervisibility.

- 9.2.23 The nearest listed building is the Grade II\* Church of St Leonard and the Grade II Cottage Nurseries building on the main street in Willey. There is some very limited intervisibility from visitors to the church yard but no intervisibility with Cottage Nurseries due to a fold in the local landform, combined with dense intervening tree belts and/or intervening buildings.
- 9.2.24 There is very limited intervisibility between the Grade II listed Manor Farm, in Ullesthorpe given intervening farm buildings and the orientation of the principal elevation of the building, which is away from the Site and faces north west toward Claybrooke Parva. The conservation area, in Ullesthorpe, approximately 0.75km to the north east, is generally inward looking with very limited glimpsed views out toward the application site. There is some partial and filtered intervisibility through intervening layers of tree cover, in winter, predicted between the Grade 1 listed Church of St Peter in Claybrooke Parva and The Claybrooke Parva Conservation Area at a 1.2km distance.
- 9.2.25 There are views from some of the windows of the Ullesthorpe Windmill, which is Grade II listed at a distance of 2km.
- 9.2.26 Bittesby House on the application site is not designated, but is classed as an undesignated heritage asset. The heritage significance and the setting of this building and the cottages which are associated are considered in detail within the **Archaeology and Heritage Chapter 11** and the **appended Heritage Statement**. This building, Bittesby Cottages, Lodge Cottage also undesignated heritage assets and Emmanuel Cottage are all proposed for removal.
- 9.2.27 The visual effects of the proposed scheme on visitors to the Bittesby Scheduled Monument, the Ullesthorpe Moat Scheduled Monument, associated permissive open access areas, the Ullesthorpe Windmill, the Church of St Leonard, and St Peter's Church, Claybrooke, are considered under the visual baseline and the visual effects assessment following in **sections 9.4, 9.5 and 9.6**.
- 9.2.28 Further consideration of the settings of Scheduled Monuments and listed buildings which have not been scoped out of the assessment, are specifically addressed in the **Heritage and Archaeology Chapter 11** of this environmental statement. However, the visual effects of the proposed scheme on visitors to the Bittesby Scheduled Monument, the Ullesthorpe Moat Scheduled Monument, associated permissive open access areas, the Ullesthorpe Windmill, the Church of St Leonard, and St Peter's Church, Claybrooke are considered under the visual baseline and the visual effects assessment following in **sections 9.4, 9.5 and 9.6**.
- 9.2.29 There are four public rights of way crossing zone 1 of the application Site. These include two bridleways, W88 between Willey and Chuckey Hall and W86 between Claybrooke and Willey. There are also two public footpaths, W92 running from towards Claybrooke toward the A5 and Willey and public footpath W89 runs which runs from Ullesthorpe toward Willey across the middle of the application site. The A5 interrupts each of these routes as they head west. There is also a network of permissive paths/bridleways available until October 2017 under a Higher

Level Stewardship Scheme (HLS) on the Zone 1 part of the application site, as indicated on **Figure 9.4a**. There are no public rights of way crossing Zone 2 of the application site to the south of Magna Park.

- 9.2.30 There are no trees identified as protected by tree preservation order within Zone 1 or Zone 2 of the application Site.

### 9.3 Assessment Method

#### Baseline data collection, data sources and surveys

- 9.3.1 Baseline data collection has included desk top review of all relevant landscape and visual planning policy and designations affecting the local area around the Site, published landscape character assessments, topographic and soil maps, digital surface model data, Harborough District Council tree preservation orders information, reviews of historic maps and the identification of public rights of way, local permissive routes and the Higher Level Stewardship Agreement that relates to part of the Site.
- 9.3.2 Data sources have included: Web and GIS information from Natural England, English Heritage, Leicestershire County Council, Warwickshire County Council, Harborough District council, The Borough of Rugby Council, Ordnance Survey Mapping, Published Air Photography, Accessible data Information from the Natural England MAGIC web site, LandIS Soils viewer, published CPRE tranquillity and dark skies mapping. Also, primary data sources have included an arboricultural survey of the Site and surroundings conducted by Hayden's Arboricultural Consultants over the summer of 2014 and winter of 2015, a phase 1 habitat survey conducted by Delta-Simons Environmental Consultants and Heritage Assessments conducted by CgMs Consulting and feedback received from consultation events and Stakeholder meetings.
- 9.3.3 Field landscape and visual surveys were carried out on the Site and in the surrounding area in the spring and summer 2014 and winter of 2015.

#### Detailed methodology

- 9.3.4 This LVIA has been prepared using a detailed methodology (included in **ES Volume 3, Technical Appendix F.2**), developed by Nicholas Pearson Associates, and which draws upon the following best practice guidance:
- The Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, prepared by the Landscape Institute and Institute of Environmental Management and Assessment (2013).
  - An approach to Landscape Character Assessment Guidance (Oct 2014) prepared by the Natural England.
  - Utilisation of some of the approaches used in recent Harborough District Council Landscape Character and Capacity assessments; and

- The Landscape Institute (2011) Photography and photomontage in landscape and visual impact assessment. Advice note 01/11.
- 9.3.5 In accordance with the published guidance, landscape character and visual impacts are assessed separately. Visually verified montages (included in **ES Volume 3, Appendix F.1**), the design and access statement (DAS), cross sections and plans of the proposals (in **ES Volume 3, Technical Appendix A.1**), forming part of the planning application submission, have been prepared in order to assist in the appreciation of the nature of the changes to the existing landscape and visual context.
- 9.3.6 An iterative design process has led to a scheme design that has been informed by landscape and visual issues and has incorporated design and planning measures to address any potentially significant effects. Therefore, this specific chapter does not attempt to describe effects without and then with, mitigation measures incorporated, as the measures form part of the scheme design description.

### **Sensitivity and Magnitude Assessment and Significance Criteria**

- 9.3.7 Topic specific landscape and visual sensitivity and magnitude considerations and level of effect criteria, have been used for this assessment and these are included in **Volume 2, Appendix F.2**. A final judgement regarding the overall significance of landscape and visual effects has been provided. In the landscape and visual assessment levels of effect above moderate are considered to be effects that are likely to be significant and important considerations at a local level or district scale and if adverse, are potential concerns to the project and may become key factors in the decision making process. For all professional judgements reached a narrative has been used to explain conclusions.

### **Scope, Consultation and Study Area**

- 9.3.8 The scope of this landscape and visual assessment has been discussed and agreed with the landscape officer representing Harborough District Council (HDC). The scope reflects formal comments on the outline application at the time of the submission of the detailed DHL application scoping; the scope of the assessment also reflects comments received in that scoping opinion from The Borough of Rugby District Council and feedback received at pre application meetings with representatives from English Heritage and Leicestershire County Archaeology unit. The latest correspondence regarding scoping was received in August 2015, from Landscape Partnership acting on behalf of Harborough District Council following a second pre application meeting. Records of the scoping feedback received are included in **ES Volume 3, Technical Appendix F.4**. The project has also been subject to public consultation over two events and the LVIA scope and coverage has also been informed by the findings of the Statement of Community Engagement.
- 9.3.9 Rugby Borough Council (RBC) made a formal request within their scoping opinion (included in **ES Volume 3, Technical Appendix F.4**) which stated;

*“that the surveys relating to Landscape Character & Visual Impact chapter include both visual photographic montages from locations agreed with yourselves (HDC) AND an assessment against the provisions of the Landscape Assessment for the Borough*

*of Rugby'. RBC confirmed the basis for this being 'the sites location on the edge of and within the Harborough District Council administrative area but beside Rugby Borough Councils area administrative edge from where views of the proposal will be taken in green belt and countryside location. As such there is a potential impact that needs to be addressed.'*

- 9.3.10 The assessment therefore includes consideration of indirect impacts on the High Cross plateau - open plateau and representative viewpoints selected from within this area have been agreed with the HDC landscape officer. A visually verified montage from the end of a public footpath where it meets the A5 was also specifically identified to show the effects that would be experienced from west of the A5.
- 9.3.11 In addition to some predicted indirect effects on the High Cross plateau - open plateau character type, in Rugby Borough, the landscape character areas directly impacted by the proposals include, at a national level – the Leicestershire Vales NCA94, at a sub-regional level – the East Midland Landscape Character Assessment Character Group 5 Village Farmlands and at a local level the HDC landscape character areas, the Lutterworth lowlands and the Upper Soar. These character areas are the landscape receptors within the study area likely to be impacted by the proposals.
- 9.3.12 The following potential landscape and visual receptors, in the vicinity, have been scoped out of the assessment as, following field work, there has been no identified direct, indirect or visual relationship with the Site and the scheme proposals: The Newton Paddox Estate Historic Park and Garden, the Ullesthorpe Conservation Area, the Claybrooke Parva Conservation Area and for the visual assessment and views from visitors to the Claybrooke Parva Scheduled Monument.
- 9.3.13 The extent of the study area used for the assessment was initially determined following the preparation of desk top based Zone of Theoretical Visibility (ZTV), based upon a new building height parameter of up to 23m, which is slightly above the proposed final building height of the tallest building. There are two ZTV maps included in **ES Volume 2, Technical Appendix F.1 at Figure 9.5a and 9.5b**. The first was generated using terrain alone (**Figure 9.5a**) but with the existing Magna Park modelled so its effect could be taken into account. Whilst this mapping was helpful in informing the study area for initial field work, the limitations of this type of mapping approach are that the images produced do not otherwise take account of intervening vegetation, other buildings and elements in the landscape which would affect the visibility. Additionally, the model does not take account of the moderating effect of distance, in that the proposals would become increasingly indistinct with increased distance.
- 9.3.14 The second ZTV(**Figure 9.5b**) is a more refined plan which utilises digital surface model (DSM) data within a 5km square around the Site to refine the ZTV by taking account of the vertical elements including woods, other buildings and other features to generate a more refined visual envelope for the development. The areas identified on the ZTV plans were then used to inform subsequent field surveys and the identification of potential angles and locations where the site would be visible from and to and enabled a provisional list of representative, specific and illustrative viewpoints to be identified. This work was then tested in the field with the HDC landscape officer in order to agree a final set of visual receptors and viewpoints to be



used in the visual assessment and to confirm the study area as being reasonable. An additional viewpoint, from the Ullesthorpe Windmill was also identified, for assessment following consultation by Leicestershire County Archaeology Unit and English Heritage.

- 9.3.15 The representative viewpoints for Zone 2 of the application Site, to the south of Magna Park, were agreed with Landscape Partnership on behalf of Harborough District Council and formally confirmed in August 2015.

## 9.4 Baseline Conditions

- 9.4.1 This section establishes the baseline landscape and visual conditions. The information below when reviewed alongside the description of development has been used to identify and describe the changes that would result to the landscape and the visual effects that would arise from the proposal in **Sections 9.6 and 9.7**.

### Landscape Character Baseline

- 9.4.2 This assessment adopts the definition of landscape character described in 2000 by the European Landscape Convention<sup>1</sup>, as follows:

*“... an area, as perceived by people, whose character is the result of the action and interpretation of natural and/or human factors.”*

- 9.4.3 The aim of the landscape baseline:

*“is to provide an understanding of the landscape in the area that may be effected –its constituent elements, its character and the way this varies spatially, its geographical extent, its history, its condition, the way the landscape is experienced and the value attached to it.”(GLVIA 3rd Edition, P32 Paragraph 3)<sup>2</sup>*

- 9.4.4 Landscape character is defined by the locality’s key characteristics. Taken together these components form a collective landscape character area which can be used to define the locality. An evaluation of these character areas has been made below to identify the qualities and sensitivities which could be potentially affected by the proposed development. The anticipated trends for evolution and change in the landscape, without the proposed scheme, have also been described.

- 9.4.5 An assessment of the site’s landscape character has been developed through a review of published assessments and at a more detailed local level following field and desk study. Field studies together with the desk study have identified three specific landscape receptors that relate to the Site and which would be affected by the proposed development. The specific landscape receptors, include:

- Landscape Receptor 1 - A small part of the Lutterworth Lowlands (LCA) which incorporates the part of the Zone 1 Site to the south east of Mere Lane and Zone 2 of the application Site to the south of Magna Park;

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<sup>1</sup> Council of Europe. European Landscape Convention. Florence, 2000.

<sup>2</sup> Landscape Institute and IEEMA. Guidelines for landscape and Visual Impact Assessment. 3rd Edition, 2013.

- Landscape Receptor 2 - Part of the Upper Soar (LCA) which incorporates the main Zone 1 Site area and road infrastructure to the north-west of Mere Lane; and
- Landscape Receptor 3 - The High Cross Plateau (LCA) - open plateau landscape type, to the west of the A5 where indirect effects on landscape character could potentially arise from both the Zone 1 and Zone 2 schemes.

9.4.6 These local landscape character areas/receptors, as they relate to the Site, have been identified in **ES Volume 3, Technical Appendix F.1, on Figure 9.3**. Notable landscape features and elements within and providing the immediate local context of these areas are also mapped in **ES Volume 3, Technical Appendix F.1, on Figures 9.4a-c**. More detailed mapping of vegetation features is included within the Hayden's Arboricultural Report in **ES Volume 3, Technical Appendix F.6**.

9.4.7 Once landscape character has been defined, classified and described through reference to published landscape character assessments, below, the baseline then considers the strength of landscape character and the condition of each of the three identified landscape receptors. This baseline information is used to inform judgements about the landscape value, susceptibility and sensitivity of each landscape receptor in **sections 9.5 and 9.6**.

9.4.8 Conclusions regarding the value of each landscape receptor are then, within the assessment of effects section, combined with consideration of the susceptibility of the landscape receptors to the type of development envisaged, in this location, in order to reach a conclusion about the overall sensitivity of the identified landscape receptors. Note, *'that the level of sensitivity of the landscape receptors in LVIA 'is specific to the particular project or development that is being proposed and to the location in question'* (GLVIA 3<sup>rd</sup> Edition, P88, Paragraph 5.39).

### Published Landscape Character Assessments

9.4.9 The following published landscape character assessments, character areas and types are of relevance to the site and study area and their extent is identified on **Figure 9.3 in ES Volume 3, Technical Appendix F.1**:

#### *National*

- National Character Area (NCA) Profile 94 Leicestershire Vales, February 2014. Natural England

#### *Regional*

- The East Midlands Landscape Character Assessment (EMRLCA), March 2009, East Midlands Landscape Partnership

#### *County*

- The Leicester, Leicestershire and Rutland Landscape and Woodland Strategy, February 2001 and Addendum February 2006, Leicestershire County Council
- Leicestershire and Rutland Historic Landscape Characterisation Project. January 2010
- The Warwickshire Landscape Guidelines Dunsmore, High Cross Plateau, Mease Lowlands, November 1993. Warwickshire County Council, Countryside Commission (as they were then)

*District*

- The Harborough District Landscape Character Assessment, September 2007. Atkins
- Landscape Character Assessment and Landscape Capacity Study for Harborough District Council, December 2011. The Landscape Partnership
- Harborough Rural Centres Landscape Character Assessment and Landscape Character Study, July 2014. The Landscape Partnership
- The Landscape Assessment of the Borough of Rugby, Sensitivity and Condition Study, April 2006. Environmental Design Group.

9.4.10 The relevant findings of the Leicestershire and Rutland Historic Landscape Character Assessment are also referenced, in more detail, within the **ES Volume 2, Heritage and Archaeology Chapter 11** and the **Heritage Statement and Desk Based Assessment that form associated appendices**.

9.4.11 The national and regional character assessments have been referenced below, alongside the lists of defining landscape characteristics extracted from more local studies. The national and regional landscape assessments are the most recent published assessments and these reflect the latest guidance on character assessment and have been the subject of substantial consultation, adding weight to their findings. Also, these have been prepared, with reference to the previous landscape assessments, developed at a more local level.

9.4.12 As the regional landscape assessment does not extend into the adjacent land of Warwickshire and Rugby Borough extracts from relevant Warwickshire and Rugby Landscape assessments and their conclusions have also been included here, in the main text, to establish the wider landscape context of the Site.

**National Landscape Character Areas**

9.4.13 The Leicestershire Vales National Character Area Profile 94 summaries the wider area, in which the Site is located, as:

*"a large, relatively open, uniform landscape composed of low-lying clay vales interrupted by a range of varied river valleys. Its sense of place comes less from its overall landform and more from its visually dominant settlements and views towards surrounding higher ground. The city of Leicester dominates the north eastern corner of the NCA."*

9.4.14 After the city of Leicester, Lutterworth, Market Harborough and Hinkley are identified as the main large- to medium-sized settlements in an area that otherwise includes attractive villages, buildings and features of historic interest, set in between.

9.4.15 The southern part of character area is described as having a *"distinctly more rural feel, where a mixture of arable and pastoral farmland is found"* than the north, around Leicester. *"Country houses, historic designed parkland, waterside trees and meadows"* are identified as common features throughout. The area is identified as being *"rich in historic character, with country houses, parkland and surviving examples of ridge and furrow."* Numerous features and sites of historic interest are also identified.



- 9.4.16 The summary profile of the Leicestershire Vales also makes reference to the major road networks that traverse the area including the M1 and the M69, together with, other main roads including the A6 and the A5, both of which it identifies as having “*ancient origins.*”
- 9.4.17 Following a review of ecosystem services in the wider area the profile states that “*other than the historic environment, most of the ecosystem services within this NCA are locally beneficial, but its river valleys – especially the River Soar and its tributaries –provide regional benefits for water flow and water quality.*”
- 9.4.18 The ongoing challenges in this area are identified as “*principally development growth of the city of Leicester and many of the smaller towns which has an impact on the rural parts of this NCA.*” However, it also identifies that “*development also provides opportunities to raise design standards, strengthen sense of place and increase resilience of some habitats, by improving habitat connectivity and networks through associated green infrastructure provision.*”
- 9.4.19 Key published defining landscape characteristics which are of relevance to the Site include:
- *“an open landscape of gentle clay ridges and valleys underlain by Mercia Mudstone and Lias groups bedrock but with an extensive cover of superficial deposits occasionally giving rise to moderately steep scarp slopes. There is an overall visual uniformity to the landscape and settlement pattern.*
  - *land use characterised by a mixture of pasture and arable agriculture that has developed on the neutral clay soils.*
  - *the NCA's woodland character is derived largely from spinneys and copses on the ridges and more undulating land and hedgerow trees and hedgerows.*
  - *distinctive river valley of the Soar and Swift, with flat flood plains and gravel terraces together with tributaries including the Sence. Riverside meadows and waterside trees and shrubs are common, along with waterbodies resulting from gravel extraction.*
  - *woodland character derived largely from spinneys and copses on the ridges and the more undulating land and from waterside and hedgerow trees and hedgerows. The density, height and pattern of hedgerows vary throughout.*
  - *diverse levels of tranquillity associated with contrasts between busy urban areas and some deeply rural parts. Large settlements dominate the open character of the landscape. Leicester, Lutterworth, Hinckley and Market Harborough and related infrastructure, including major roads, are often visually dominant.*
  - *frequent small towns and large villages often characterised by red brick buildings and attractive stone buildings in older village centres and eastern towns and villages. Frequent, imposing spired churches are also characteristic, together with fine examples of individual historic buildings.*
  - *rich and varied historic landscape, with the nationally important Bosworth Battlefield near Sutton Cheney, prominent historic parklands and country houses, ridge-and-furrow earthworks and important medieval settlement remains, for example at Wistow Hall, Gumley, Knaptoft and Peatling Magna.”*

9.4.20 The published National Character Area profile for the Leicestershire Vales also includes a Statement of Environmental Opportunity with four key items identified which are important design considerations within the Leicestershire Vales, these include the following:

*“SEO 1: Protect and appropriately manage the strong historic character and heritage and the geological assets within the rural and urban landscapes, maintaining the evidence of past land use and connections between agriculture, settlement pattern and topography, as well as the significant places and events that took place within the area, so that the area can be enjoyed by all. Ensure that development is fully integrated into and informed by the landscape.*

*SEO 2: Manage, conserve and enhance the woodlands, hedgerows, streams and rivers – particularly the rivers Soar, Sence, Swift and Welland – in both rural and urban areas, to enhance biodiversity and recreation opportunities; improve water quality, flow and availability; benefit soil quality; and limit soil erosion.*

*SEO 3: Increase, manage and enhance the recreational assets, principally the rights of way network, country parks such as Watermead and historic linear features such as the canals. Improve access to these assets and the open countryside from the city of Leicester and surrounding rural communities and provide green infrastructure to help improve people’s health and wellbeing.*

*SEO 4: Create new habitats where opportunities exist, such as woodlands and wetlands at old gravel extraction sites, to extend, link or buffer areas of existing habitat to reduce the impacts of fragmentation. Manage existing grassland, woodlands, coverts and spinneys that contribute to sense of place, enhancing biodiversity resilience and habitat networks.”*

### Regional Landscape Character Types

9.4.21 The East Midlands Landscape Character Assessment (EMRLCA) prepared in March 2009 identified 31 regional landscape character types (RLCTs). The EMRLCA was produced following consultation with stakeholders drawn from a wide range of statutory agencies, local authorities as well as full public consultation. Under the aims and objectives of the study it states that: *“Government agencies, local planning authorities, voluntary organisations, private sector bodies and local communities should seek to use the findings of this and other assessments to meet the European Landscape Convention’s aspiration for a landscape that:*

- *“Is beautiful, rich and productive;*
- *Provides a basis for entrepreneurial business and sustainable communities; and*
- *Contributes to a positive regional identity and sense of pride and place.”*

9.4.22 The two landscape types which are most relevant to the Site and its setting include: 5A: Village Farmlands and Type 5C: Undulating Mixed Farmlands. Mere Lane is broadly the dividing line between these types. The Site falls predominantly within RLCT 5A to North-west of Mere Lane. The new access road to Magna Park and the service farm improvements effecting land to the south east of Mere Lane falls within RLCT 5C. Published key

characteristics, forces for change and stated landscape guidelines listed, for each Regional Landscape Character Type, have been referenced below:

For RLCT 5A Village Farmlands (North-west of Mere Lane) stated Key landscape characteristics include:

- *“gently undulating lowlands, dissected by stream valleys with localised steep slopes and alluvial floodplains;*
- *moderately fertile loamy and clayey soils with impeded drainage over extensive till deposits on higher ground and gravel terraces bordering main rivers;*
- *mixed agricultural regime, with localised variations but with a predominance of either dairy farming on permanent pastures, or arable cropping;*
- *small and moderately sized broadleaved woodlands and copses, often on sloping land; extensive new areas of planting associated with The National Forest;*
- *hedgerows and frequent oak and ash trees along hedge lines and streams contribute to well treed character of landscape;*
- *moderately sized well maintained hedged fields across rolling landform create patchwork landscape of contrasting colours and textures;*
- *extensive ridge and furrow and small historic villages linked by winding lanes contribute to historic and rural character of the landscape; and*
- *localised influence of large estates.”*

Relevant Identified and stated forces for change and guidelines for ‘shaping the future’ in this landscape include, under the following headings:

#### *Built development*

*“Villages are under increasing pressure from development, especially those closer to Derby and Leicester, which are popular with commuters. In-fill development on available land within settlement boundaries, and development on village margins, can damage architectural and historic character, create visual intrusion and extend the urban fringe into the countryside.”*

*“The aim should be to protect the character of villages and consider the visual impact of any new development. Planting of new trees around settlement fringes should also be encouraged, helping to integrate new development into the landscape.”*

*“The aim should also be to manage the growth of larger settlements, ensuring development is appropriate in terms of design and scale. As with development in more rural areas, tree and woodland planting can help minimise adverse impacts. There should also be a place for the use of innovative architectural solutions that take inspiration from local distinctiveness and character whilst utilising eco-friendly and high quality design. Care should also be taken to prevent coalescence, ensuring separation is maintained between the urban fringe and surrounding settlements.”*

#### *Infrastructure*

*“Although parts of the landscape type retain a quiet, rural character, a network of transport routes crosses the landscape, in particular major roads such as the M42, M69, A5 and A50. Continued improvements to roads, including new junctions and road widening, further fragment the landscape and reduce the sense of tranquillity, whilst also generating opportunities for further development. Road improvements are also occurring on the network of minor roads, better connecting isolated villages with larger towns and cities.”*

*“The aim should be to manage the expansion of the transport network, ensuring improvements are carefully planned to provide positive environmental and landscape enhancements. In more rural areas, road improvements should reflect local character and avoid bringing a degree of standardisation to the countryside.”*

#### *Agriculture and land management*

*“The Village Farmlands has a mixed agricultural regime, with localised variations in permanent pastures and arable cropping. While the landscape generally has an intact and well maintained appearance, some areas have suffered from a loss of hedgerows and hedgerow trees, resulting in larger fields and a sense of exposure. The intensification of farming across the landscape has also resulted in the loss of semi-natural habitats, leaving occasional areas of meadow and unimproved grassland.”*

*“The aim should be to protect existing hedgerows and semi-natural habitats, whilst encouraging positive management of those features lost or under threat. This will create a stronger pattern of land use and reinforce the rural character. In particular, the restoration of meadow and grassland should be considered, enhancing biodiversity and landscape character. Linear features in this landscape, such the Ashby Canal, dismantled railways and numerous streams could also benefit from habitat enhancement to improve connectivity.”*

#### *Forestry and woodland*

*“Woodlands in the Village Farmlands are typically small and scattered. Small scale woodland and tree planting could be used in and around settlements to integrate new development into the landscape and in more intimate low-lying areas to help maintain a mixed pattern of land-use.”*

*“Outside of The National Forest, the aim should be to plant new small-scale woodland in suitable locations and consider the management of existing trees and woodland. The opportunity exists to enhance biodiversity value and age structure through new planting and creation of woodland edge habitats.”*

*“The National Forest Strategy highlights the potential for large scale plantations and community woodlands in this landscape type, complementing the pattern of the large scale fields. In addition, a range of other tree and woodland planting is recommended including farm woodlands in more open area and where possible, new woodlands would be linked with existing semi-natural woodland, together with improvements to hedgerows and riparian habitats along streams and rivers.”*

For RLCT 5C Undulating mixed farmlands (along and to the south east of Mere Lane), stated key landscape characteristics include:

- *“varied landform of broad rolling ridges, steep sided valleys, rounded hills and undulating lowland;.*
- *well treed character arising from abundant hedgerow trees, copses and woodlands;*
- *upland areas mark a major watershed in Middle England and are the source of major rivers;*
- *mixed farming regime with mainly arable land uses on hills and ridges and in fertile lowlands; intact hedgerow networks generally associated with pastoral land uses;*
- *sparse settlement patterns with limited modern development; widespread use of local limestone and ironstone in vernacular buildings and churches;.*
- *network of quiet country lanes linking rural communities;.*
- *remote, rural and sometimes empty character; and frequent and prominent ridge and furrow and evidence of deserted or shrunken medieval settlements.”*

Relevant stated forces for change and associated landscape guidelines for ‘shaping the future’ in this landscape type include:

#### *Built development*

*“The Undulating Mixed Farmlands have seen limited late 20th century growth and development and many areas remain remote and rural. However, modern mixed-use development is evident on the fringes of larger settlements such as Leicester, Northampton and Daventry and in and around those villages closest to the main towns. This creates visual intrusion and extends the urban fringe.”*

*‘The aim should be to protect the character of the countryside and consider the visual impact of any new development included areas of large scale mixed use development associated with the identified Growth Areas. Specific mechanisms include best practice innovative architectural design and planning solutions, and planting of new trees and woodland, helping to integrate new development into the landscape. Care should also be taken to prevent coalescence, ensuring separation is maintained between the urban fringe and surrounding settlements.”*

#### *Infrastructure*

*“Localised road improvements are evident in the road network in order to better connect isolated villages with larger towns and cities. This has an urbanising effect and brings a degree of standardisation to the landscape.”*

*“The aim should be to manage road improvements, maintaining the existing character of the rural road network, whilst having regard to user and safety requirements. Any road improvements should be carefully planned and designed to provide positive environmental and landscape enhancements and strengthen prevailing character. This may include grassland, hedgerows and trees along road verges to enhance character and increase the occurrence of semi-natural habitats.”*



#### *Energy provision*

*“Although not currently characteristic of the Undulating Mixed Farmland Landscape Character Type, the more elevated areas face pressure for wind farm development, including the potential for cumulative impacts. Such development can create prominent landmarks and reduce the sense of remoteness and isolation.”*

#### *Agriculture and land management*

*“While the rural landscape retains a mixed land-use, with areas of pasture and arable, there is evidence of agricultural intensification, resulting in the loss or damage of many typical landscape features. This includes loss of hedgerows and hedgerow trees and damage to areas of ridge and furrow. There is also a proliferation of new large scale agricultural buildings, reflecting the loss of smallholdings and the general increase in farm size.”*

*“The aim should be to protect the structure and unity of the landscape and consider the impact of any new structures and changes to farming practices. New large scale agricultural buildings should be carefully sited, away from visually prominent locations and amongst existing buildings where possible. Specific design guidance for farmsteads may be appropriate, establishing the criteria for new development. Consideration should also be given to the management of those features lost or under threat. In particular the restoration of hedgerows should be given priority, creating a stronger pattern of land use and reinforcing the well-treed character.”*

#### *Forestry and woodland*

*“Woodland cover and type varies dramatically across the landscape, with generally more woodland within upland areas, and a range of broadleaved, conifer and mixed plantations. New woodland planting should therefore be considered at a county level, reflecting local variations. However, opportunities exist to use new tree planting and small-scale woodland as screening of new residential and agricultural development and to link existing woodlands.”*

*“The aim should therefore be to manage existing trees and woodland, including the protection of ancient semi natural woodlands including measures to reduce their fragmentation. In addition new tree planting should be encouraged to ensure a varied age structure and creation of woodland edge habitats to enhance their landscape and biodiversity character.”*

### **Leicestershire County and Harborough District Character Assessments**

- 9.4.23 The Leicester, Leicestershire and Rutland Landscape Character Assessment referred to as the ‘Leicester, Leicestershire and Rutland Landscape and Woodland Strategy’ was carried out in 1995 (and published in 2001) by members of Leicestershire’s County Council Landscape Team. The assessment was based on the 1976 Leicestershire County Landscape Appraisal which identified twenty three landscape character areas which were reduced and redefined to 18 in 1995. Five of these character areas fall fully or partly within Harborough District. The broad study of the area examined policies, landscape characteristics, woodlands

and forestry, the proposed character areas and provided general objectives and guidelines. The character area study focused on the visual character of the countryside concentrating on landscape and woodland issues but did not address issues of built design.

- 9.4.24 The information formulated in the above study was used as a reference point in preparing the Landscape Character Assessment for Harborough District and where relevant, information drawn from the county assessment has been added to the summarised findings of the Harborough District Character Assessment below where it is not repetitive or considered superseded.

### **Harborough District Council Landscape Character Assessments**

- 9.4.25 Two specific local landscape character areas within the Harborough District Council (HDC) Landscape Assessment of 2007 and parts of subsequent HDC Landscape studies relate to the Site and these overlap with the regional landscape character types referenced above.
- 9.4.26 The Site falls predominantly within the Upper Soar Landscape character area and is partially within the Lutterworth Lowlands to the east.
- 9.4.27 The following extracts from the Leicester, Leicestershire and Rutland Landscape Character Assessment (LLRCA) and Harborough District Landscape Assessments (HDCA) are of some relevance to the study area.

#### *The Upper Soar Local Character Area*

*“This area lies on the westernmost boundary of the District although only the eastern edge of the Upper Soar lies within Harborough District. It includes the periphery of the wide elongated basin with steep ridges to the River Soar that contain the significant settlements of Broughton Astley and Ullesthorpe. It is characterised as a large wide river basin with high ridges which forms a small part of larger character area extending outside the District to the west. The landscape is open to visible influences from outside the character area. There is a general lack of woodland across the landscape, with predominantly pasture agricultural land use, but urban influences are apparent in particular around Broughton Astley.”*

*“This character area forms a large elongated basin, running south-west to north-east. Its south-western end is dissected by a series of ridges which run broadly south-west to north-east. These ridges often give long views over the whole of the character area and beyond. The landscape is generally open and gently rolling.”*

*“Farming gives the impression of being well-managed. Well defined, usually regular, fields are divided by generally low cut hedges of thorn, elm and field maple. However, there are localised variations in hedgerow pattern and some arable areas in particular have suffered from the loss of hedges and hedgerow trees. Oak and ash are the two most common hedgerow trees. In the valley bottoms groups of willow and alder are locally significant alongside minor watercourses.”*

*“Disused railway lines are a locally important feature in the south-east of the area. They are often associated with small woodlands and other sites of ecological value,*

*and their often well-vegetated appearance is important in an area that generally lacks tree cover.”*

*“with the exception of the larger villages, such as Broughton Astley/Primethorpe, individual settlements remain clearly separated by open countryside.”*

Distinctive features within the Upper Soar as identified by the above Landscape Assessments are as follows:

(the list of characteristics has been combined to avoid repetition):

- *“elongated basin;*
- *open rolling landscape with distinct high level ridges;*
- *large villages with evidence of industrial past;*
- *urban influences from larger settlements and Leicester;*
- *mixed agriculture - arable emphasis to west, pasture to east;*
- *little woodland;*
- *local rock outcrops and former quarries;*
- *River Soar corridor a significant feature through built up area;*
- *visible influences from outside character Areas.”*

The HDCA makes some broad comments regarding the capacity of this character area to accommodate development which include the following:

Overall the development capacity for the Upper Soar character area within Harborough District is described in the HDCA as ‘*medium*’ with the following explanatory paragraphs:

*“The rural character of the Upper Soar has already been encroached upon by the urban character of its settlements. The rural character which remains undisturbed requires protection and has low capacity to accommodate change.”*

*“Overall, the Upper Soar represents a relatively developed landscape with the capacity to accommodate further change.”*

The capacity of the areas around Magna Park for development are not specifically addressed as the focus of the study was on existing settlements and predominantly was a search for housing potential.

However, relevant issues identified within the Upper Soar, as identified by the LLRCA and HDCA are:

- *“a lack of woodland management;*
- *loss of hedgerows and hedgerow trees;*
- *further urban development and increased urban influences;*
- *insensitive siting of new built development. and*
- *road widening.”*

*“The wide, open landscape which lacks large scale woodland cover is vulnerable to the adverse visual impacts of development. Appropriate mitigation measures as part of the*



*design process would be important to the successful integration of new development into the landscape.”*

*“Development pressures may impact on landscape character and appropriate design and mitigation measures are key.”*

*“Care should be taken to conserve remaining landscape features and elements which otherwise could be lost to inappropriate development.”*

*Identified Objective (Taken from the LLRCA)*

- *“To enhance the appearance of the agricultural, urban and suburban landscapes which comprise the character area.”*

*Guidelines (Taken from the LLRCA) include:*

- *“enhance the existing woodland resource through improved management;*
- *increase woodland cover in small to medium sized blocks;*
- *strengthen the hedgerow network through improved management and new planting;*
- *increase tree cover through new planting of scrub and willow fringe to streams;*
- *enhance the amenity and ecological value of the River Soar corridor.”*

9.4.28 The existing Magna Park site to the south and the part of the Site immediate to the south east of Mere Lane, fall within the local landscape character area of Lutterworth Lowlands.

Distinctive features within the Lutterworth Lowlands as identified by the above Character Assessments are as follows:

- *“open landscape, flat or slightly undulating;*
- *rural area with few large settlements;*
- *low tree cover;*
- *farming is predominantly grazing;*
- *scattering of small villages with larger settlements of Kibworth and Fleckney to the north and Lutterworth to the south;*
- *localised sand and gravel extraction;*
- *parkland locally significant;*
- *contains Bruntingthorpe Airfield;*
- *the M1 and the A426 run through the area;*
- *contains Magna Park Distribution Park to the west of Lutterworth.”*

The HDCA makes some broad comments regarding the capacity of this character area to accommodate development which include the following:

Overall, the development capacity for the Lutterworth Lowlands character area within Harborough District is described in the HDCA as ‘*medium to high*’ with the following explanatory paragraphs:

*“The Lutterworth Lowlands character area represents a changing landscape with many recent developments around the fringes of existing settlements. Expansion due*

*to new development areas may mean that the area is under threat of losing some of its rural characteristics.”*

*“The Lutterworth Lowlands character area has the capacity to accommodate further residential development. Lutterworth, Fleckney and Kibworth in particular have the capacity and infrastructure in place to allow for further development, within and adjacent to their current urban envelopes.”*

The capacity of the areas around Magna Park for development are not specifically addressed as the focus of the study was on existing settlements and predominantly was a search for housing potential.

However, relevant issues within the Lutterworth Lowlands as identified by the LLRCA and HDCA are:

- *“loss of hedges and hedgerow trees;*
- *lack of hedge management;*
- *unsympathetic development, particularly on the edges of Settlements;*
- *given the degree of change already experienced in the landscape character area further development proposals should be carefully assessed to avoid additional adverse or irreversible change to the remaining landscape character;*
- *landscape character is relatively open, with a lack of enclosing landscape elements, such as mature woodlands and hedgerows. Any new development should take account of longer distance visual impacts on the landscape setting;*
- *there is a general lack of vegetation cover across the character area where both mature woodlands and hedgerows have been previously lost. Remaining vegetation cover therefore needs adequate protection against detrimental impacts and supplementary planting where opportunities arise;*
- *elsewhere, the southern parts of the landscape character area contain fewer and smaller settlements, with the exception of Lutterworth. Any development, even small scale should preserve remaining landscape features and mitigate against adverse impacts in the wider landscape.”*

*Objective (Taken from the LLRCA)*

- *“To conserve and enhance the rural character of the lowland agricultural landscape.”*

*Guidelines (Taken from the LLRCA)include:*

- *“Increase woodland cover through planting in blocks of all size;.*
- *maintain and strengthen the existing hedgerow network through improved standards of hedgerow management and new planting;*
- *increase tree cover through new hedgerow tree planting.”*

9.4.29 There have been more recent Landscape Studies prepared for Harborough District Council including the Lutterworth and Broughton Astley Landscape Character Assessment and Landscape Capacity Study for Harborough District Council<sup>3</sup>. The conclusions in this

<sup>3</sup> Lutterworth and Broughton Astley Landscape Character Assessment and Landscape Capacity Study for Harborough District Council, December 2011. The Landscape Partnership (p15, 22&23).

document have been referenced where they refer to landscape sensitivity in the Lutterworth Lowlands LCA - Magna Park - open farmland, to the south of Magna Park. The findings of this sensitivity study has been used to inform this assessment in respect of the Zone 2 part of the application site and considerations regarding the cumulative effects of the application lodged for land at Glebe Farm by DB Symmetry Limited. This Harborough study focusses on settlement fringe areas and potential areas for housing growth and does not extend into the area covered by Zone 1 of the application site. However, the same field study work recording form has been used for establishing baseline information associated with this development.

### Warwickshire County and the Borough of Rugby Character Assessments

9.4.30 The landscape character context to the west of the A5, which could potentially be in directly impacted by this development, incorporates the High Cross Plateau Character Area, which was first identified in the Warwickshire Landscape Guidelines Nov 1993. This character area is further subdivided into two local landscape types the open plateau and village farmlands. Published key characteristics of this landscape character area and Open plateau landscape type, which occurs to the west of the A5 Watling Street are summarised below:

Stated Key Characteristics of the High Cross – Open plateau include:

- *“a large scale open rolling landscape characterised by wide views and a strong impression of ‘emptiness’ and space.*
- *a rolling plateau dissected by broad valleys;*
- *a medium to large scale, often poorly defined field pattern;*
- *a sparsely populated landscape of hamlets and isolated manor farmsteads;*
- *deserted medieval village sites surrounded by extensive areas of ‘empty’ countryside;*
- *pockets of permanent pasture often with ridge and furrow;*
- *prominent belts of woodland.”*

Relevant stated forces for change, summarised here, include:

- Agricultural intensification, urban expansion and the suburbanisation of the countryside, compounded by natural disasters including Dutch elm disease resulting in gradual erosion of local character and sense of place.

Relevant stated general development guidelines included for this landscape character area in the Warwickshire Landscape Assessment include:

- *“conserve all sites of archaeological and historical importance;*
- *conserve the rural character of villages by retaining existing features and local patterns in all developments schemes;*
- *conserve the historic nucleated settlement pattern by avoiding new development in open countryside;*
- *new agricultural buildings should be sited, designed and landscaped to blend with the surrounding farmed landscape;*

- *landscape assessment should be a major consideration at the inception of all road schemes;*
- *conserve rural character by limiting standardised treatments during highway improvement schemes;*
- *protect the character and special features of country roads. In north east Warwickshire, roads are typically bounded by hedgerows set back behind wide grass verges;*
- *highway landscaping should be strongly linked to the surrounding landscape pattern. Geometric slope profiles should be avoided.”*

Stated Management Strategy and Guidelines for the High Cross Plateau character area include:

*Management strategy*

- *“Conserve and enhance the remote rural character of the region.”*

The associated text states that: *“conversely, influences such as new development or moving traffic are often very visible in these open landscapes. This is particularly apparent along the major road corridors. Ameliorating the impact of such influences is a key element in maintaining the distinctive character of the landscape.”*

*Guidelines*

- *“any new development should reinforce the existing settlement pattern.*
- *conserve rural character and avoid types of farm diversification which are inappropriate to an agricultural landscape.*
- *conserve the character of the rural villages by retaining farmsteads within settlements.*
- *conserve all remaining deserted medieval villages and ridge and furrow landscapes.*
- *conserve and enhance the value of rivers and streamlines as wildlife corridors.”.*

Specific identified management strategy for the Open plateau landscape type

- *“Strengthen the structure and unity of the landscape through large scale woodland planting. ”*

*Guidelines include:*

- *“conserve and restore all primary hedge lines and manage them more positively as landscape features;*
- *enhance the continuity and wooded character of the river and stream corridors;*
- *conserve and enhance tree cover within and around rural settlements;*
- *enhance tree cover through large scale woodland planting on rising ground. In the sub text it states: ‘new planting should not be so extensive that the feeling of openness is lost’. Also it states that ‘Mixed woodlands would be acceptable as long as edges and skylines are sensitively handled’;*
- *new woodland should appear predominantly broadleaved and favour Oak with Ash as the major tree species (Note: Ash cannot be planted currently due to disease restrictions.”*

9.4.31 In addition, the Landscape Assessment of the Borough of Rugby Sensitivity and Condition Study, April 2006<sup>4</sup>, includes a further appraisal of these landscape types and specifically reaches the following conclusions regarding the High Cross plateau – open plateau:

9.4.32 Stated key landscape characteristics include:

*“This is a remote, large-scale, open, rolling plateau dissected by broad valleys, characterised, for the most part, by wide views and a strong impression of “emptiness” and space. This is reinforced by an absence of roads and settlements, with sparsely populated hamlets and isolated manor farmsteads prevailing. In places there are extensive areas of largely inaccessible countryside, which relates closely to deserted medieval village sites. Field pattern is generally medium to large in scale but is often poorly defined and tends to be a relatively minor element in this landscape, as the eye is naturally drawn to distant skylines rather than to foreground views. In places, however, smaller fields may occur, often associated with pockets of permanent pasture, and ridge and furrow. Shelterbelts may also form prominent features in an otherwise open and featureless landscape.”*

9.4.33 In the ‘Summary of Findings’, regarding Sensitivity and Condition, the following conclusions were reached:

**“Sensitivity – Fragility:** *Whilst the Open Plateau is a planned landscape, the cultural sensitivity varies with the central plateau summit having a more consistent pattern than the rest. Ecological fragility is low across the whole LCT.*

**Sensitivity – Visibility:** *The rolling topography gives rise to a moderate sensitivity, but on the plateau summit the more gently rolling landform, together with the presence of very distinctive shelterbelts, results in reduced visibility. The area between Harborough Magna, and Cosford, north of Newbold on Avon, has a high visual sensitivity due to lack of tree cover.*

**Overall sensitivity:** *Due to a combination of cultural coherence and rolling topography, the overall sensitivity is rated as **moderate**. This becomes high to the north of Newbold on Avon where the landscape is rolling but unwooded.*

**Condition:** *There is an extensive area to the north of Rugby whose condition is considered to be weak. To the north and west of Newbold on Avon, as too with land around Coton House, condition is strong.*

*Elsewhere it is in decline.”*

9.4.34 Taken together the above published assessments identify some of the key characteristics of the local area, identify the trends for change anticipated in the landscape, without the development. The above published character assessments have also provided useful guidelines to inform and guide the scheme design to deliver a sensitive and responsive approach to change within this landscape context (**See the scheme Design and Access Statement and Planning Statement for further details**)

<sup>4</sup> the Landscape Assessment of the Borough of Rugby Sensitivity and Condition Study, April 2006

## The Landscape of the Site and its immediate setting

- 9.4.35 The application site (the Site) comprises approximately 246ha of land in two zones. The two zones form the Site of the hybrid planning application.
- 9.4.36 Zone 1, indicated on **Figure 9.4a in Volume 3 Appendix F.1**, is a c 232ha triangular parcel of predominantly agricultural land to the north and north west of Magna Park, Lutterworth. Zone 1 is the site of the outline proposals for distribution warehousing, the National Centre for Logistics Qualifications and its campus, the small business space and the new estate office, together with the related access, SUDS, country park and service facilities.
- 9.4.37 Zone 2, indicated on **Figure 9.4b in Volume 3 Appendix F.1**, situated approximately 1.0 km to the south east of Zone 1, is a 7ha rectilinear parcel of agricultural land to the rear of the George headquarters building on the A4303 near the junction with the A5 Watling Street trunk road, and close to the main access point to Magna Park. Zone 2 has an existing planning consent for a HGV Park and associated gateway and vehicle maintenance building and is the site of the detailed proposals for the dedicated Magna Park rail freight shuttle terminal and HGV parking facility.

### *The Site - Zone 1 history and site description*

- 9.4.38 The part of Zone 1 of the application Site, to the south east of Mere Lane, was originally farmland connected with land to the west of Mere Lane. This changed when the farmland to the east was requisitioned for the creation of Bitteswell Airfield in 1939. At the same time, Mere Lane was constructed as a new road connection diverting traffic from the old road that bisected the new aerodrome. The creation of the airfield and road, in combination with continued more intensive arable farming practice to the west of Mere Lane has led to substantial hedgerow loss, changes to the field patterns and loss of woodland across the Site. Since the closure of the airfield, the land to the east of Mere Lane has been progressively developed as a logistics park and the piece of the Site to the south east of Mere Lane is now largely occupied by the Magna Park services farm and water treatment pond, with woodland plantations enclosing it. In more recent times, Mere Lane has become increasingly wooded on both sides of the road. The land to the north-west has continued as farmland.
- 9.4.39 Bittesby House, to the west, which dates back to the Georgian era, has been substantially modified over time. Access to the house originally was from the north, then from the west from the A5 (formerly Watling Street, a Roman road)) and is currently from the south. Bittesby House has a small garden area to its front and now currently overlooks a lake, arable fields and the existing buildings of Magna Park beyond. Bittesby House and farm was occupied for office use in more recent times. A small sewage works was originally located on land that was restored to create the Mere Lane Lagoon at the northern end of the Site.
- 9.4.40 Further north west beyond Bittesby House is the A5 (Watling Street) and the line of the former Midland Counties railway and the historic site of the deserted village of Bittesby, which is located within the main tributary valley of the Soar. The deserted village site and main valley was bisected by the installation of a now disused railway, in 1838. To the north of the site there is a further ridge coinciding with the parish boundary. Within the large arable fields around the Bittesby scheduled monument site ridge strip field patterns and ridge and furrow



are no longer present and many old field boundaries have been removed in the past, further enlarging fields. The Stewardship scheme which covers parts of the application site has included some hedgerow replanting within the three gently sloping fields to the east of the A5 beyond the railway and has contributed various blocks of woodland planting and has involved the improvement of field shores for wildlife. Some blocks of wet woodland, small wetland areas and some conversion of arable to pasture has occurred in the bottom of the main valley alongside the main Soar tributary, to the east of the application site, since 2006. Areas outside the stewardship scheme in different ownership continue to be farmed, as arable, and suffer from hedgerow loss and boundary neglect with no signs of reparatory works.

- 9.4.41 Zone 1 is linked to and extends Magna Park. Its boundaries are created by the A5 to the south and west, Mere Lane to the east and the ridgeline hedgerows following the parish boundary to the north.
- 9.4.42 The nearest local settlement to Zone 1 is Willey which is 0.45 km away, beyond the A5 to the north are the villages of Ullesthorpe and Claybrooke Parva which are located, at the closest point from the Site, 1.0 km and 1.3 km distant. Bitteswell is located 2.0 km to the east of the Site and the market town of Lutterworth is located 2.2 km to the east. The nearest residential properties are those at White House Farm, bordering the application site to the north, some residential properties on the eastern edge of Willey and then at a greater distance some properties on Woodway Lane and the Lutterworth Road on the edge of Ullesthorpe.
- 9.4.43 Vehicle access to Zone 1 is currently provided by Mere Lane, which in turn connects to the A5 and the wider strategic highway network. Junction 20 of the M1 is located beyond Lutterworth, approximately 4.5 km to the east of the Site. Further afield, Junction 1 of the M69 and Junction 1 of the M6 are situated to the north west and south west respectively. Bittesby Farm, the Brick Barn (occupied by Holovis) and Bittesby House, all located within Zone 1, are connected to Mere Lane by two minor access roads.
- 9.4.44 Zone 1 comprises large open arable fields, smaller enclosed fields, some mature hedgerow boundaries and mixed native tree belts. Zone 1 slopes away from the high ground of its boundaries towards the Upper Soar Valley that crosses the centre of the site. The vertical level difference changes by more than 20m across the site from highest ground along the eastern Mere Lane and the northern boundary at circa 125m AOD, to the lowest point of 103m AOD in the valley bottom. From this central valley, the ground rises gently again towards White House Farm at the north-western corner of Zone 1. Two smaller tributary streams meet the Upper Soar and run along small valleys to the east of Zone 1. To the west, two small folds in the landscape also carry ditches towards the main valley bottom.
- 9.4.45 The water courses in field boundaries to the Zone1 are marked by hedgerows and riparian trees that form large, predominantly arable fields. Wet woodland tree species and woodland blocks punctuate the valley bottoms whereas broadleaf spinneys and hedgerows mark the ridgelines of Zone 1.
- 9.4.46 Other landscape features in Zone 1 include the wooded embankments of the dismantled Midland Counties railway that follows the Upper Soar valley at the centre of the site and the tree lined avenue of Bittesby House. Other built elements include Bittesby Cottages and Lodge and Emmanuel cottages, on the A5, both non- residential properties in the control of IDI

Gazeley UK Limited. The horizon to the east of the site is dominated by the existing built environment of Magna Park and the trees and hedgerows along Mere Lane. The Manor Farm Wind Turbine is another built feature that also punctuates the skyline to the north-east of the site. To the south and west, the hedgerows and embankments of the A5 trunk road contain immediate views, with Long Spinney (located parallel to Coal Pit Lane) forming the more distant horizon. To the north west, views extend over gently rolling fields towards Wibtoft and Woodway Lane. To the north, St Peter's church spire in Claybrooke Parva and the windmill of Ullesthorpe can be seen via tree filtered views along the Upper Soar Valley, as can the church spire of St Leonards in Willey to the south. Many of the views at the centre of Zone 1 are more internal, being framed or truncated by the railway embankment and barns of Bittesby House farmyard.

- 9.4.47 In addition to the arable fields, woodland, grazing pasture and habitat zones, game rearing and apiculture is also evident on the site. To the north east of the site, the Mere Lane Lagoon (an attenuation feature for Magna Park) has previously been used as a fishing lake.
- 9.4.48 Included within the application boundary are a part of the Magna Park services farm and existing areas of grassland and plantation woodland.
- 9.4.49 Further north, parts of three further arable fields are included within the Zone 1 area, up to the ridge line which is marked by a bridleway. To the north west, the red line boundary of the site also includes a 20 m wide strip of arable land proposed for offsite tree planting. The strip lies alongside an existing hedgerow and continues across an arable field to meet the existing ridgeline hedgerow that forms the Ullesthorpe Parish boundary.
- 9.4.50 At the north eastern end of the site is the Mere Lane Lagoon which attenuates water draining from Magna Park and feeds a watercourse that runs along a small tributary valley of the River Soar to the northern and western flanks of the site.
- 9.4.51 Zone 1 of the Site also contains the Scheduled Monument of Bittesby Deserted Medieval Village (reference 1012563). The village is recorded in the Domesday Survey (1086 AD) and is likely to have been established in the late Saxon period. The Scheduled Monument is located at the centre of the site between the railway embankment and Upper Soar tributary. This land with permissive open access until 27<sup>th</sup> October 2017 (under the current the HLS) comprises visible earthworks maintained by sheep grazing.
- 9.4.52 No development is proposed for the Scheduled Monument. Geophysical and field walking surveys of the accessible areas within Zone 1 have been carried out in support of the current application. There is evidence of archaeological assets to the north east and east of the Scheduled Monument which contribute to the significance and setting of the Monument
- 9.4.53 Twenty listed buildings and two conservation areas lie within a 2 km radius of Zone1. These include listed buildings in Willey, Ullesthorpe and Claybrooke Magna to the north west. The historic core of Ullesthorpe village and Claybrooke Parva are designated as a Conservation Area. In addition, Ullesthorpe Moat scheduled monument is located 1.1km away to the north west and the Claybrooke Moat scheduled monument 1.2km to the north.



- 9.4.54 Bittesby House, Bittesby Cottages and the former 'lodge' to Bittesby House represent the three non-designated heritage assets located in Zone 1. Bittesby House, formerly a farmhouse and is now used as office space, dates from at least the 18th century. Bittesby Cottages, lying to the north-east of Bittesby House, date from the late 19th century. The former 'lodge' to Bittesby House also dates from the late 19th century, and lies to the south-west of Bittesby House century. The impact of the proposed development on designated and non-designated heritage assets is considered in detail within **Chapter 11 Archaeology and Heritage and the appended Heritage Statement**.
- 9.4.55 Zone 1 does not include, nor is it adjacent to, nor is it within a 2 km radius of, any statutory designated sites for wildlife such as SSSIs, SPA/ SAC/ RAMSAR, AONB, all of which are areas defined in Regulation 2 of the EIA Regulations.
- 9.4.56 There are four Local Wildlife Sites (LWS) within the search area falling into the County of Leicestershire, the closest being Old Manor Reedbed LWS situated approximately 800 m to the north of Zone 1. In addition, there are two candidate LWS and a Potential (p) LWS between 1.5 km and 2 km from the Zone 1 boundary, neither of which have been designated. Numerous Parish, District and County level sites have been identified within the search area, all designated in the 1980's and 1990's. These include a designation at Parish level for the stream which bisects Zone 1, whilst there is a pond approximately 30 m to the south-east of the zone. Within the search area covered by Warwickshire, there are 4 Ecosites, the closest being the disused railway line beyond the A5 to the west, which is a continuation of that which bisects Zone 1 north- east to south-west.
- 9.4.57 Habitat enhancements executed under the current Natural England Higher Level Stewardship scheme (which expires in October 2017) occur on parts of the site and include mixed native broadleaf woodland plantations, hedgerow enhancements, set-aside wildflower beaches, grazing pasture and wetland scrapes. Also, associated with the stewardship scheme are a network of permissible bridleways, bridleway gates and orientation signage.
- 9.4.58 To the south east of Mere Lane, the site includes an area of rough grassland and two belts of trees located adjacent to the Magna Park service farm with its associated plant, bio discs and a water treatment/settlement pond. Another water course drains from this pond, flows under Mere Lane and along the south western end of the main part of the site. To the south and east of this part of the site, are the logistics warehouses of the existing Magna Park development, located on Argosy Way, Vulcan Way and Hawke Way, where occupiers include Eddie Stobart Limited, CML, Unipart and Primark.
- 9.4.59 Alongside the Magna Park service farm and to the west, the Site boundary includes a section of Mere Lane; existing woodland belts either side of the lane and a strip along the edge of two large arable fields. Further west, the site includes a linear parcel of land to the east of the A5 corridor where there are some scattered existing trees and intermittent sections of hedgerow and some individual native shrubs. This vegetation is located on a bank sloping down from a wide grass verge at the edge of the carriageway. To the south of Mere lane there is a wide grass verge, running up to a mature hedgerow which is located on level ground in front of a woodland planted embankment which forms the boundary to Magna Park. Further to the

north, on this side of the A5, alongside Lodge and Emmanuel Cottages there is a conifer belt and a line of deciduous trees located at the roadside.

*Zone 2 Site description*

- 9.4.60 On the western side of the of the A5, there is a public footpath and bridleway connecting to the edge of the A5 from Willey and these run up to and pass through two rows of post and rail fence set behind a wide grass verge. A mature hedge line and with occasional trees follows the fence alignment nearest to the A5 and partially follows the fence line set further back on the field boundary. Widening works (with the exception of part of a new roundabout junction) will be focussed on the eastern side of the road.
- 9.4.61 Zone 2 forms part of the developed southern edge of Magna Park. Immediately to the zone's north, is a distribution building occupied by Pearson (Plot 7100) and the George House office building. Zone 2 is located approximately 1.6 km from Willey to the north west, 1.6 km from Lutterworth to the east and 2.5 km from Cotesbach to the south east. Access to Zone 2 is via the southern arm of the roundabout on Coventry Road (the A4303), which to the north also provides the main point of vehicular access to Magna Park.
- 9.4.62 Zone 2 benefits from an extant planning permission for a HGV parking facility which was granted by HDC in November 2012 (reference 12/00851/FUL: Change of use of land to provide HGV and car parking; formation of hard standing; erection of vehicle maintenance unit building, administration building, fuel island and vehicle washing facility, associated landscaping (revised scheme of 11/01757/FUL), Land South Of And Adjacent To Asda George Headquarters, A4303, Magna Park, Lutterworth). IDI Gazeley is in the process of discharging the pre-commencement conditions relating to the approved HGV parking scheme and will begin the development once the requisite approvals have been secured. The existing arrangements for both the main Magna Park access point and Zone 2 access will benefit from improvements and upgrading works associated with the proposed DHL Supply Chain project, currently subject of a planning application (15/00919/FUL) and the extant planning permission for the HGV parking facility.
- 9.4.63 Zone 2 consists of two fields, neither of which is currently in agricultural use. Zone2 slopes from the north to the south, with an overall fall of some 12 metres. Some existing mature trees and hedgerows are located on the northern and southern edges of the zone and there is an existing hedgerow running through it from north to south. A brook runs adjacent to the southern boundary. Beyond Zone 2 to the south and east is open farmland.
- 9.4.64 Zone 2 does not accommodate any designated or non-designated heritage assets. However, a programme of archaeological work based upon a Written Scheme of Investigation will shortly be undertaken, in accordance with Condition 20 of the extant planning permission.
- 9.4.65 Zone 2 is not subject to any international or domestic statutory wildlife designations and there are none adjacent, nor within a 2 km radius of its centre. Within the search area that falls within Leicestershire there is a single Parish Local Wildlife Site (PLWS), Bitteswell Brook, at a distance of 1.1 km from the eastern Site boundary. There are 9 Parish level sites, two of which fall within Magna Park; however, none are on or adjacent to the Site. In accordance with Conditions 17, 18 and 19 of the extant HGV parking permission, broad-leaved woodland and replacement badger foraging habitats will be created.

9.4.66 In regard to the search area covered by Warwickshire, there are 7 PLWS's found within a 2 km radius from the Site centre, all lying west of the A5 in Worcestershire.

9.4.67 There are no public rights of way, bridleways or public footpaths crossing or abutting Zone 2.

### **The nature of the landscape receptors**

9.4.68 The following sections consider the strength of landscape character and the landscape condition associated with each of the three identified landscape receptors. Judgements have been based upon the findings of desk top review of published landscape character assessments and field work to record the site landscape characteristics. Copies of the field survey/evaluation forms used for this assessment, which reflect those used for other published Harborough District Council landscape assessments, are included in **ES Volume 3, Technical Appendix F.3**.

9.4.69 Before considering the identified landscape receptors, individually, it is important to first confirm that the Site does not fall within a designated landscape area at a national, regional or local level and is not therefore formally recognised for its landscape value. However, this is not to say that a landscape, at a local community level, is automatically to be considered as being of low value because it is not recognised by designation. Site specific character assessments have been carried out, in this case, to supplement published information, in order to establish the landscape value of the different parts of the application site.

9.4.70 The specific findings in terms of landscape character and condition are set out below:

*Landscape Receptor 1 - Lutterworth Lowlands LCA (Part of the Site to the south east of Mere Lane in Zone 1 and to the south of Magna Park in Zone 2)* Also within East Midlands Regional Landscape Character Type 5C -Undulating Mixed Farmlands and National Character Area Profile 94 - Leicestershire Vales

(The extent of the Lutterworth Lowlands LCA and the site landscape character and features that form the assumed baseline in each Zone of the application site are indicated on **ES Volume 3, Appendix F.1, Figures 9.3, 9.4a and 9.4b)**

#### *Zone 1- to the south east of Mere Lane*

##### *Strength of Character*

- The landscape to the south east of Mere Lane has a landform that is gently undulating between 125 and 120m AOD and sloping down to the north-west. This part of the site includes part of a shallow side valley connecting with the larger tributary valley of the Soar to the west. The hydrology for this area includes a large off site settlement pond, which forms part of the Magna Park services farm, and this is connected via a pipe connection under Mere Lane and then via a ditch to connect with the main Soar tributary. The gently undulating landform is apparent but this is localised as the landform has otherwise been substantially modified by the settlement pond and the landform is difficult to read given the amount of tree cover.
- The land cover comprises predominantly a small field of semi improved grassland, some establishing blocks of birch, oak, cherry, hawthorn, hazel and Ash woodland belt planting (including along the edge of Mere Lane), patches of scrub (in the area of the proposed

two bio discs) and wetland areas which are off-site in the vicinity. The primary land use in this area (outside the application area) is the water treatment facility and the secondary land use is grass land and tree cover. Establishing tree cover interlocks with adjacent areas and now defines the boundaries of this area. In addition to a sloping area of rough grassland, grass verges also follow the edges of Mere Lane. The land cover is apparent and localised.

- The historic pattern to the south east of Mere lane has been lost due to previous changes in land use. The principle change was the change in use of what was planned enclosed, farmland to Bitteswell Airfield in 1939. At the same time, Mere Lane was created as a diversion from the old road that passed through the centre of the airfield. Subsequent, further land use change has occurred since associated with Magna Park and the creation of its service farm. As a result of these changes there was substantial hedgerow loss, historic woodland cover removal, removal of farmland land use and a progression of changes to the built context. The context of this land is now dominated by the twentieth century logistics warehouse buildings to the south and east. The former historic patterns are now considered insignificant in this part of the site.
- The area is visually concealed and contained by surrounding buildings and establishing woodland on the edge of Mere Lane. The landscape has an unusual mix of uses but cannot be considered unique or rare and levels of tranquillity are low given the adjacent service yards, Mere Lane and nearby A5.
- In terms of the key published defining landscape characteristics of the Lutterworth Lowlands this part of the Site does still comprise a small localised area of slightly undulating topography but it can no longer be described as an open landscape, which is typical of the Lutterworth Lowlands. This part of the Lutterworth Lowlands cannot be considered to be a rural area, given the built influences. The Lutterworth lowlands generally has low levels of tree cover and therefore the land cover is not typical and the land has not been farmed for a long time and the land is separated from other farmland by Mere Lane. Former hedgerow cover has been lost and there is no evidence of ridge and furrow. This area cannot be considered remote, rural or as having an 'empty' character and has low levels of tranquillity and visual unity, given its context. Mere Lane to the north-west has some positive attributes however, it was introduced in 1939 and is not an historic country lane and it is a busy route, close to the A5. This land is within the immediate context of the twentieth century Magna Park distribution park, a feature in the Lutterworth Lowlands in its own right.
- Some aspects of the distinctive landform and land cover are apparent in localised areas of this part of the site, however, the historic pattern is insignificant, the tranquillity of the area is low, the features on the site are relatively commonplace and there is a limited presence of published distinctive landscape characteristics. There is also a low level of visual unity given surrounding land uses and therefore the strength of character is considered to be **weak**.

#### *Landscape Condition*

- The historic integrity of the land to the south east of Mere Lane has been lost as there has been a widespread amount of land cover change on and around this part of the Site, over

time. Trees on the site are all relatively young and the field and hedge patterns have been lost.

- The ecological integrity is average in that there is some linkage between habitats provided by woodland belts and Mere Lane does not provide a significant obstacle to the movement of wildlife. The management of woodland and woodland edges could be improved for biodiversity gain.
- The existing visual impact of built development including the adjacent warehouse buildings, the service farm, roads and utilities is high given the local setting of Magna Park. Strong visual containment is currently provided to this area by surrounding establishing woodland blocks and the existing buildings of Magna Park.
- Therefore, the condition is considered to be **moderate to poor**.

#### *Zone 2- to the south of Magna Park*

##### *Strength of character*

- The area surrounding and including the Zone 2 Site is located within the Lutterworth Lowlands district LCA includes Magna Park as one of its identified characteristics and the site sits alongside and to the south of this area, The influence of adjacent office buildings, warehouses, the A4043 are all apparent in the local context of the site. There are also some longer views out across more open undulating arable farmland from parts of the site. The area of the Lutterworth lowlands off site to the south is characterised by more open and undulating farmland, dissected by a tributary valley of the River Swift. The Lutterworth and Broughton Astley Landscape Character Assessment and Landscape Capacity Study for Harborough District Council, December 2011 (pages 15,22 &23), identifies the Lutterworth Lowlands LCA - Magna Park - open farmland, within which the DB Symmetry site is located, as being a landscape of moderate (medium) to low landscape sensitivity. This area is not formally designated or at any level for its landscape value.
- The site itself includes some of the published characteristics of the Lutterworth Lowlands which include two sloping medium sized fields. The Zone 2 site slopes at between 1 in 20 and 1 in 25 and falls from 128mAOD in the north west to 117m in the south east corner. The main field in the site was arable, now unmanaged and the other field to the west which is partially within the application site is semi improved pasture. There are also hedgerows and hedgerow trees, which are gappy in places away from the southern boundary forming the boundary to the site and running through the centre between the two field there is a hedge that has rejuvenated following previous coppicing. The southern native hedgerow has mature specimen trees intermittently along it and this hedge has grown on to a height of 4m plus and this hedge and the central hedge are combined with a ditch. There is a small area of ditch extending into the Semi improved grassland area mid-way down the field. Hedgerow trees include Ash, Oak and Willow species. The historic field pattern of hedges, but the hedgerow structure is interrupted and intermittent on the northern and eastern boundaries and in places there is only fencing. Levels of tranquillity are generally low given the proximity to the A5 and A4043. The land cover and



site features are not rare or unusual in the Lutterworth Lowlands. The visual unity is generally low given the mixture of land uses and activity in the immediate area, however, visual unity is more coherent off site to the south. The site in its local context is considered to overall have a **moderate to weak** strength of character a despite having typical land cover and a generally intact historic pattern, the landform of the core of the site is relatively insignificant, the site features are frequent in the Lutterworth Lowlands and the site has low levels of tranquillity and is moderately impacted by built development in the surrounding area.

*Landscape Condition*

- The landcover on this site includes arable land and some semi improved grassland which are currently intact but unmanaged. There is some disruption to the landcover on the northern edges of the site. The pattern of hedgerows is interrupted locally by fencing but the remaining hedges provide habitat linkages between other areas of adjoining establishing vegetation and adjacent field boundaries. Habitats are not obviously managed for wildlife. The visual impact of built development and features is moderate alongside and in the vicinity. Office buildings, warehouses, the A5 and the A4043 and the associated infrastructure impact on the perceived condition of this area. Overall the condition of the existing site is considered to be **moderate** as despite habitat linkages being good, the condition of the site is influenced by the relatively high impact of adjacent built development around and otherwise landcover change is only localised, tree cover is in average condition, management of habitats is not obvious and the cultural pattern of hedges is interrupted at present.

*Landscape Receptor 2 – Upper Soar LCA (Part of the Site to the north-west of Mere Lane)- which has been split into two distinct landscape types which have been considered separately below* Also within East Midlands Regional Landscape Character Type 5A – Village Farmlands and National Character Area Profile 94 - Leicestershire Vales .

(Given the scale of the Zone 1 application site it been evaluated below at a finer grain using two smaller landscape units (Landscape Character Types), which are present within the Site and this part of the Upper Soar LCA. These are the: low lying clay vale farmland with gentle ridges and the Soar tributary flat floodplains and terrace landscape types. The extents of these landscape types are indicated on the **ES Volume 3, Appendix F.1 Figure 9.4a**).

*Strength of Character – in the low lying clay vale farmland with gentle ridges landscape type*

- This part of the application site adjoins Mere Lane and is set alongside the existing Magna Park to the south, abuts the A5 corridor to the west, up to White House Farm and extends up to the parish boundary in the east. The Manor farm wind turbine is a notable feature in the intervening landscape between this part of the application site and Ullesthorpe. This part of the site is not formally recognised at any level for its landscape value.
- Key published Upper Soar landscape characteristics that are present in this landscape type include some areas of predominantly very large to medium scale rolling arable farmland. Some of these areas have in the past been pasture. There are some distinct local ridges and some small areas of steeper ground, including the main noticeable ridge

on the site running south east to north west, east of the Bittesby Scheduled Monument site. There are some other local ridges too, in peripheral areas, including along parts of the parish boundary and on parts of the site alongside the A5 corridor. There are some areas of spinneys and copses, which are largely of more recent origin, found on sloping ground and alongside Mere Lane. These more wooded features have become a more frequent characteristic on this site than found in other parts of the Upper Soar, where the farmland character can be more open. Some of this tree planting is due to farm woodland initiatives, included some supported by the Forestry Commission. There are also hedgerows of various ages, some of which include mature Oak and Ash trees, however, the majority of these trees are along the edge of Mere Lane. Mature trees stands otherwise can be found mostly on the boundaries of this area and there are some mature tree stands including an avenue and some a tree groups, around Bittesby House.

- The farm estate, which appears to have been centred on Bittesby House, in the eighteen century, has been progressively altered and reduced in size over time, particularly when Mere Lane was constructed and farmland was requisitioned, for the building of Bitteswell Airfield in the 1940's. Intensive arable production has also resulted in the loss of many further field boundaries and some very large fields. Bittesby House itself has also substantially been altered since its humble origins as a farm house and for some time has not functioned as a farm enterprise, with the land being managed from elsewhere. There are readily apparent visual influences, in this part of the site from Magna Park on higher ground and traffic on the A5 corridor. There are also diverse levels of tranquillity, present with lower levels alongside the A5 corridor and some more tranquil areas away from this part of the site and this landscape type further to the east. Longer views to other character areas are generally limited due to intervening tree lined ridges to the north but do extend toward Long Spinney and across parts of the High Cross plateau LCA to the north west. There are also some historic landmarks visible from this part of the site including to the towers of St Peter' Church, Claybrooke Parva, St Leonard's Church, Willey and the Ullesthorpe Mill.
- The landscape of the low lying clay vale farmland in Zone 1, of the site, to the north-west of Mere Lane has an undulating landform and forms part of a broad valley. In this part of the Site, the land slopes from 126m to 110m AOD, the low point being to the east of Bittesby Farm. The clay vale farmland on the site includes some areas that are gently undulating and some steeper sloping areas further to the north and to the west alongside the main tributary valley. The slopes in this landscape type generally range from 1 in 40 to 1 in 15. The undulating landform is generally apparent and widespread. The exception to this is local ridge which runs on the line of bridleway W88 and some areas of steeper sloping land to the north of this on the edges of the tributary valley which are more dominant features.
- The specific hydrology features in this part of the site include the relatively recently introduced Mere Lane Lagoon, connected to the existing Magna Park, a network of ditches and a small part of a spring fed stream linking to the main Soar tributary valley to the south east. Some ditches combine with boundary hedges before connect into the main tributaries in the adjacent valley. There are two relatively recently installed amenity ponds

in the vicinity of Bittesby House. The drainage network is apparent and localised in this landscape type.

- The primary land use is arable farmland and generally large with some partial enclosure from trees, woodland and hedges. The Magna Park logistics park, Bittesby House, Bittesby Cottages and other cottages are all noticeable built structures in the scene. There are some areas of interlocking recently planted woodland introduced along Mere Lane and some fragmented areas of woodland on some field edges. Field boundaries generally comprise medium sized hedgerows, where they remain, including some hedgerow trees, often combined with ditches.
- There are some apparent historic field patterns but these are localised and in places the pattern has become so eroded as to become insignificant. The original planned enclosure to the south, east and west of Bittesby House has been largely lost and the setting to the east and west has been substantially changed and the estate pattern, extent and fabric eroded (**See Chapter 11 Heritage and Archaeology for further details**). The former main drive avenue trees that would have defined a former route from the west is a positive landscape feature that survives around Bittesby House and farm. The current field patterns include predominantly large fields, two medium sized fields and four smaller fields. Some of the large fields run directly up to the edge of the A5 (Watling Street), where like Mere Lane the route has distinct wide grass verges either side and some of the fields have grass shores, on their margins (of wildlife benefit), which have been introduced under the HLS. Local transport routes include the A5 which is a straight route to the west and Mere Lane which is more winding. The former Midland Counties railway to the in the centre of the area truncated the main tributary valley and used to cross the arable field to the west of Bittesby House, but this section has since been restored to arable. The profile of the former railway route is evident in the previously modified landform, in this area and the incorporation of the railway appears to have prompted hedgerow clearance in the area of the Site.
- The field patterns in large post war fields to the north west, follow slightly curved alignments following field ditches and shallow folds in the landform and the hedges here have been recently replanted under the HLS to restore some pattern where previously the fields and been enlarged for arable production, There are some intermittent sections of hedge alongside the A5, but historic hedges to the east of these fields are no longer present. Former tithe map hedgerows in the fields to the east and south of the Bittesby Scheduled Monument are also disrupted and interrupted and former strip field systems/ ridge and furrow has been lost to arable cultivation. Some buried archaeology in these fields is currently being investigated further. The current settlements in the locality are on hill tops, or in the case of Willey, are in a fold in the landform, but the historic settlements now deserted, were in valley bottom locations. There is some map evidence that when the village of Bittesby was deserted the population moved itself to a location in the valley bottom alongside the Bittesby Farm and created a small settlement there. The intervisibility from Ullesthorpe with the Site is partially interrupted by the ridge along the parish boundary and limited as most of the village is inward focussed. There is limited intervisibility between Willey and the Site due to the topography and intervening tree belts along the disused railway.



- The A5 which follows the western boundary of the site, with its current traffic levels and in places poorly defined boundaries, make the route intrusive in places and creates significantly lower levels of tranquillity in the western fields of the site, compared with areas further to the east. The built visual setting to this area of the site also includes twentieth century buildings of Magna Park to the east, on higher ground, the notable feature of the Manor Farm wind turbine to the north, an adapted and modified Bittesby House and farm and some more modern cottages of limited architectural merit to the north and south of the house. White House Farm, which has been converted in a variety of residential properties, is located to the far north of this part of the Site. The arable fields, in this part of the site whilst being a distinctive land cover are widespread features and there are no features within the large more gently sloping fields that are rare or cannot be alternatively accommodated or re-created. The area is locally visible but also includes more enclosed and visually contained areas.
- Overall, whilst the arable fields and landform are key characteristics identified in published assessments, the cultural patterns in this particular landscape type on the application site are substantially eroded in the vicinity of Magna Park and alongside the A5. In these locations and around Bittesby House the tranquillity levels are now low and the disturbance created by traffic along the A5 Watling Street, is much greater in this era. Substantially modified former farmsteads like Bittesby House itself the large arable fields with fragmented hedges are frequent and commonplace features in the local area, however, it is recognised that the south east to north west local ridge is a feature of local value a visual relationship with the scheduled monument site, in the valley bottom and coincides with an historic route way and current bridleway. The strength of character overall is therefore considered to be **moderate** but with some areas of weaker character to the south east and west.

#### *Landscape Condition*

- Land cover change has occurred within the landscape type but it has generally remained as farmland with other changes in cover relatively localised (including the creation of the Mere Lane Lagoon, the previous dismantled section of railway, additional houses around Bittesby House, some localised grading works and woodland planting). The tree cover is comprises a combination of some mature trees, in variable condition and some even aged younger plantation woodland, in need of management. There are some linking areas of habitat and other areas where the habitat is more scattered and fragmented, particularly to the east where hedgerow connectivity is frequent and disrupted. The evidence of habitat management varies across the site with some better areas in land managed under the higher level stewardship scheme, The fields to the south of Bittesby House and alongside the A5, are not in the HLS scheme and their management state, is declining, Whilst some historic field patterns survive or have been reinstated as part of the HLS, the cultural pattern in this area has also been significantly interrupted by the Bitteswell Airfield/Magna park, some changes around Bittesby House and to the house itself, its approaches and degradation of surrounding historic field patterns. Some of the trees that survive in the former avenue lined drive are good quality mature specimens, however the better quality trees are concentrated on one side and in some parts of the avenue with

other avenue trees of lower quality or in places missing. There are also a higher quality group of trees to the north of the house, which is part of a fragmented boundary. The two ponds near Bittesby House lack management and are recent introductions. In addition, the field areas surrounding the Bittesby medieval village, to the south have suffered extensive loss of ridge and furrow and strip farming systems as a result of intensive arable farming operations. The impact of the existing built development of Magna Park and the A5 is moderate to high from this landscape type. Therefore, the condition is considered to be **moderate** overall.

*Strength of Character – In the Soar tributary flat floodplains and terrace landscape type*

- This landscape type includes the main tributaries of the River Soar within the application site. The main tributary runs broadly east to west with a branch running south collecting water from a finer network of ditches following folds in the landscape. The tributaries and their floodplains are identified as regionally important ecosystem services features in the statement accompanying the National Character Area Profile 94 - Leicestershire Vales. In addition to their vital function in conveying water from the catchment to the River Soar to the north east they also provide wetland habitat, have strong associated tree and shrub lines in parts of the site, and are features of cultural significance that historically influenced the siting of the now deserted villages including Bittesby and the site of Ullesthorpe Moat off site to the North east, further along the tributary. There are also some springs that feed the tributaries both on and off site. Further to the North east of the application site the floodplain to the main Soar tributary broadens out and there are some areas of grassland and scrapes introduced under a higher levels Stewardship Scheme and woodland areas introduced under Forestry commission schemes that have further enhanced the character of the Valley bottom and the disused railway embankment that truncates it. The remains of part of the deserted medieval village of Bittesby and visible earthworks in an area of grazing land provide on the floodplain terrace in the base of the main tributary valley are designated as a scheduled monument and are one of a chain of monuments in the valley connected by rights of Way and some off site open access land. The strength of character of the tributary valley landscape type is considered to be **moderate** with evidence of a combination of published key landscape characteristics which off-site to the north-east begin to exist in more rural and tranquil surroundings, as they become more remote from the A5 corridor. There are areas of stronger character, in this character type, where it extends off site to the north east.

*Landscape Condition*

- As identified above, the main part of the Soar valley tributary running east to west that occurs within the application site has been substantially modified, most significantly by the embankments and structure associated with the Midland Counties Railway which truncated the valley in the 1838, At the same time the alignment severed the remains of the Bittesby Deserted village. Ditches in the south west part of the application site now connect via pipes to the main watercourse. This one of a number of agricultural improvement works, together with hedge removal that have altered this area in an attempt to improve its drainage and the size of fields for arable cultivation. Whilst there have been some recent interventions to restore the land, the historic integrity has been irrevocably

disrupted. In addition to this, the setting of the scheduled monument appreciated from the valley bottom terrace area in addition to the effects of the railway, has substantially changed to the east and south east where the Manor Farm Wind turbine forms a skyline feature and where Magna Park buildings can be seen on the sky line on high ground. To the south traffic on the A5 is visible and audible. The section of the tributary valley nearest the A5 is the most visible disrupted and least tranquil part of the valley which would benefit from an enhanced boundary to the A5 corridor and restored green infrastructure where arable large arable fields have in the past lost their hedgerows and enclosure.

- Despite the elements that have degraded the condition of the tributary valley being in evidence, there have been some attempts to restore some hedge lines and improve woodland cover, to introduce grassland margins to water courses and some additional wetland habitat for wildlife. The management of some of these features has been effective in restoring some linkages and habitat connections but woodland areas would benefit from thinning and habitat for a variety of species could be improved further. In addition, the ongoing positive management of this landscape type and the additional access opportunities that are currently made available under a permissive scheme are not secured, after October 2017, when the HLS agreement comes to an end.
- The condition of this landscape character type is therefore overall is considered to be **moderate** overall.

*Landscape Receptor 3 – High Cross Plateau LCA– Open plateau Landscape Type (West of the A5) Also within National Character Area Profile 94 - Leicestershire Vales*

**(ES Volume 3, Appendix F.1, Figures 9.3 and 9.4h** indicate the extent of the High Cross Plateau LCA and the site landscape character and features that form the assumed baseline for this adjacent landscape character area, to the west of the A5).

#### *Strength of Character*

- The landform to the west of the A5 is predominantly gently undulating and sloping from between 127m and 110m AOD. However, there is a broad valley to the north of Willey which rises up to a plateau area to the north of Willey Fields Farm. The High Cross Plateau LCA to the west of the A5 has landform to the north-west of Willey fields Farm that is prominent due to lack of vegetation cover. To the south of Willey Fields Farm the landform is apparent within the broad valley but further south and west is less so, as field boundaries and Long Spinney conceal the local landform and are more dominant. The local hydrology is represented by a stream and some ponds in the base of the broad valley tributary to the Soar. The A5 severs the valley but the watercourse continues under it and connects with the broad valley and watercourse in the Upper Soar LCA, to the east.
- In terms of land cover, the farmland is more open to the north of Willey Fields Farm and to the south; there are more hedgerows and hedgerow trees. A strong hedgerow borders the A5 to the south of Willey. To the west of the area is the significant shelterbelt feature of Long Spinney. The primary land use in this area is mixed farmland, which is prominent; however, the disused former Midland Counties railway line is a notable feature to the

south of the village of Willey. Woodland cover is typically linear in the landscape and hedgerows are generally accompanied by hedgerow trees.

- To the north of Willey Fields Farm the historic field pattern now comprises very large post war fields and to the south the pattern is planned enclosure with regular rectilinear small to medium sized fields. The transport network in this area comprises the straight A5 (Watling Street – Roman Road), some straight lanes around Willey and along Coal Pit Lane, but otherwise the road network is sparse. The next lane to the north of Willey Fields Farm is more sinuous in alignment. All the roads in this area have wide grass verges and hedged enclosure of varying heights.
- The settlement pattern includes one nucleated small village, Willey, with the listed stone church of St Leonard which dates back to the 14th century. The village includes some twentieth century dwellings on the roadside to the south. Otherwise, the pattern is one of isolated farmsteads, set largely on the upper edges of the broad Soar valley tributary to the north of the village. The country house estate of Newnham Paddox is located further to the west but this estate is visually and physically separated from the rest of the High Cross Plateau by Long Spinney. Other historic built features in the landscape include: Cottage Nurseries which a listed thatch cottage in the centre of Willey and The disused remnants of the Midland Counties Railway to the east of Willey village.
- In terms of visual and sensory perception, the settlement of Willey is concealed, as it is located in a fold in the landscape. The farmland of the High Cross Plateau is generally concealed in views to the area by Long Spinney to the west, planting along the eastern edge of the A5 and the strong hedgerow network south of Willey Fields Farm. The landscape of the High Cross Plateau feels quite visually contained to the immediate north-west and to the east of Willey but becomes more open with some longer views further to the north-west along the upper edges of the Soar Valley tributary. The levels of tranquillity in this landscape character area are low alongside the A5, where boundaries are weak and along the edge of Coal Pit Lane, levels of tranquillity improve in the valley area, as it progresses to the north-west. The generally low levels of built development and the sense of rural ‘emptiness’, perceived in some places is an unusual and distinctive quality in this landscape.
- In terms of the key published defining landscape characteristics of the High Cross Plateau – Open Plateau, this adjacent area to the Zone 1 and Zone 2 Sites includes some parts that could be considered larger scale and more open valley landscape with some wider views and a strong impression of emptiness, however, in this part of the High Cross Plateau some of these views are intruding upon by the A5 and already include a view to existing built development that effect some of these views. The landscape does include an area of plateau dissected by a broad valley. There are medium and large scale fields and the larger fields on the plateau have field boundaries that have declined. This area within the High Cross Plateau is sparsely populated; there are areas of permanent pasture and some prominent belts of woodland.
- Some aspects of the distinctive landform and land cover are apparent and in one place more prominent. The land cover pattern is generally strong and prominent. The historic pattern of fields and settlement is apparent and widespread. The levels of tranquillity are

discordant alongside the A5 and Coal Pit Lane but higher away from these roads. The area is unusual in its lack of visible built development and sense of emptiness, in some views. The visual unity is quite coherent where the A5 is not a detractor in the scene and therefore the strength of character is considered to be **moderate**.

#### *Landscape Condition*

- The historic integrity of the field and settlement pattern appears largely intact due to the lack of development and continuing traditional farming practices. Land cover change is evident where there has been some village expansion to the southern edge of Willey and where there has been some infill. There are some indications of farm diversification (including at Willey Fields Farm and Wood Farm). The age structure of vegetation appears to be mixed and the survival of the cultural pattern appears to generally be intact and well managed with some interruption to field pattern, locally, to the north of Willey Fields Farm.
- In terms of the ecological integrity, around Willey, the extent of habitat connectivity appears to be widespread with numerous valley meadows, the disused railway corridor and a strong hedgerow network. To the north of Willey Fields Farm, the fields are more open and networks are more scattered. The management of habitat appears to be good in the case of meadows and some areas of good and some poor, hedgerow management. Willey and the area to the east, along the line of the continuing disused railway, have been identified as part of the Borough of Rugby Green Infrastructure Network.
- The visual impact of built development within or experienced from this part of the High Cross Plateau is considered to be low to the north of Willey Fields Farm and moderate further south where the A5 corridor, pylons, the Manor Farm wind turbine and the existing Magna Park are present in views looking east and south east. From the village of Willey, from the adjacent footpaths and bridleways to the south and from local farmsteads, and the impact of built development on views out, is considered to be low, due to the undulating topography, hedges and some existing woodland along the disused railway and some trees along the A5, which are strong intervening features.
- Therefore, the overall condition is considered to be **moderate to good** in the far north of the area and away from the A5 and **moderate** elsewhere.

9.4.71 The evaluation above, carried out in the field has established the strength of character and condition of each of the identified landscape receptors and has been used to inform judgements about the value of the landscape receptors in **section 9.5 and 9.6**, within and around the Site.

#### *Future Baseline*

9.4.72 In the absence of the scheme, the existing landscape is anticipated to persist with the exception of further maturation of the existing planting and in the case of land in Zone 1 to the north west of Mere Lane, there would be reduced public access, as permissive routes and permissive open access onto the Bittesby SM site, are due to come to an end, in October 2017.

9.4.73 Following consideration of the baseline findings the following landscape receptors (listed in **Table 9.1**) have been identified and are used for considering the landscape effects of the proposed development in **sections 9.5 and 9.6**.

**Table 9.1: List of landscape receptors effected the development**

Receptor
<b>Receptor 1 – Lutterworth Lowlands LCA</b> (part of the Site to the south east of Mere Lane in Zone 1 and the part of the site to the south of Magna Park in Zone 2)
<b>Receptor 2 – Upper Soar LCA</b> – Broken down into two sub unit landscape types – The Low lying clay vale farmland with gentle ridges and the Soar tributary flat floodplains and terrace (part of the Site to the north-west of Mere Lane in Zone 1)
<b>Receptor 3 – High Cross Plateau LCA</b> (adjacent character area west of the A5) alongside the parts of the application site in Zone1 and Zone 2

### Visual Baseline

9.4.74 The extent of potential visibility of the Site was established through use of the following methods to identify a zone of theoretical visibility ( ZTV):

- an initial computer generated extent based upon up to a 23m building height to ridge parameter for the whole of the Site and bare terrain alone with the exception of the projected height and visual barrier of the Magna Park buildings. This is indicated in blue, on **Figure 9.5a, in ES Volume 3, Technical Appendix F.1**.
- a more refined ZTV was then computer generated with an extent based upon up to a 23m building height to ridge parameter but also with 5x5km square of Digital surface modelling (DSM) data to demonstrate the additional effects of visual barriers on potential visibility. This is indicated in blue on **Figure 9.5b, in ES Volume 2, Technical Appendix F.1**.
- The above in combination with field verification, feedback from public consultation as included in the submitted Statement of Community Engagement (SCI), a site visit with Harborough District Council (HDC), in January 2015, and subsequent consultation, in August 2015, have led to definition of the study area, the selection of potential visual receptors and the identification of representative viewpoints. Potential viewpoints indicated by the terrain only based ZTV were visited, however, at distances of around 6km and greater the site makes up such a small proportion of the view as to be barely discernible.

### The Site visual context

9.4.75 Following a more refined desktop and field assessment, the area identified in blue on **Figure 9.5b in Volume 3, Technical Appendix F.1** has been defined as the area where a building of 23m high (the tallest component of the proposals) on the Site would be potentially be visible to



some extent. Key aspects to note about the broad zone of visual influence (ZVI)/visual context of Zones 1 and separately Zone 2 of the Site, include:

*Zone 1*

*Day time*

- the observation that visibility of the proposals is predominantly limited to an arc from north west to north-north east. The existing Magna Park buildings to the south east have a much wider zone of visual influence with the visual envelope extending further south and east. Between the A5 and Long Spinney, to the west, visibility is limited to intermittent sections of footpath from higher elevations or from upper sections of the Soar tributary valley in that area, where hedgerows, tree belts, farm buildings and landform do not restrict views;
- Magna Park buildings which are at a higher level above ordnance datum than the proposed application site buildings, provide a visual barrier preventing potential views from residents and walkers of the proposed development from Lutterworth and Bitteswell, in the east;
- the extent of visibility is limited in extent, west of the A5 (within the Borough of Rugby, in Warwickshire), by the notable landscape feature of Long Spinney which is a mature woodland belt with a height and thickness that prevents views across toward the application site from further west, even in winter;
- day time views of the application site from the nearest village, Willey and its Grade 11\* listed St Leonard's Church are limited by intervening buildings and some dense mature vegetation in the church yard, gardens, along the disused railway line and by mature belts of trees along the western edge of the A5.
- the appearance of the landscape in the vicinity of the much of the proposed built parts of zone 1 of the application site is heavily influenced by its existing local context, which includes: Existing Magna Park buildings on higher ground, Wind turbines visible in the local scene, in particular the Manor Farm wind turbine to the north, a post medieval and modern landscape that includes visible built infrastructure including the Midland Regions Counties railway line. Also, Mere Lane installed in 1939 when land to the east was requisitioned for the Bitteswell Air field and visual disruption arising from the adjacent busy A5. In addition, a notable number of the visible landscape features have been relatively recently been introduced (since 2006) as part of a Higher Level Countryside Stewardship scheme or in the case of the Mere Lane tree belts, the Mere Lane attenuation pond and service farm, as part of the expansion of Magna Park;
- views identified for consideration and assessed to inform the scheme design also include views from properties at White House Farm, from the edge of Claybrooke Parva, Willey and Ullesthorpe, from footpaths and bridleways within and to the north and north east of the application site, Views from listed buildings in the surrounding area, from the scheduled monument sites of the Ullesthorpe Moat and the deserted medieval village of Bittesby and from the surrounding road network;

*Night time*

- at night, there are views experienced by surrounding residential communities to the north and west of Magna Park. Night time views have been considered toward the application site from the edges of the three nearby villages (Ullesthorpe, Claybrooke Parva and Willey) and representative of views are also considered from a small number of residential properties Woodway Lane and from properties near the A5 to the west. One key identified local issue, identified at public consultation, was the existing sky glow and glare from a lit up existing Magna Park, which is already perceived as having obtrusive effects in surrounding villages;

*Zone 2*

*Day time*

- the observation that visibility of the proposals is predominantly limited to a localised area around the site, with some potential for longer views limited predominantly to the east and outside the main urban area of Lutterworth. Potential views from Lutterworth, Bitteswell and from Churchover and Cotesbach, are not considered significant as the Zone 2 site would be seen at a distance and within wide panoramas already occupied by Magna Park, on the skyline. The view from Churchover is limited as the land slopes away beyond the A5. There are not any direct views from houses on the B4428 and the main parts of the site would not be readily visible from this location in any event;
- existing Magna Park buildings, to the north of the Site, are also a visual barrier restricting visibility from places the north, beyond office and warehouse buildings on the edge of the Park. There are some filtered views toward the site from some upper storey offices in the George building and Notts Sport office to the east through there establishing boundary vegetation. the Views from the Lutterworth Road, A5 and Coventry Road are the nearest views and in each case are limited to short sections of each of these routes;
- there is potential to view the site from two sections of bridleway and Moorbarns to the south, however, from both these locations the views of Zone 2 of the application site are limited by foreground mature vegetation and in both cases the site is seen against the backdrop of buildings and woodland planting on the edge of the Magna Park;

*Night time*

- Potential lighting effects would be perceived principally from road users on the A5, in winter, against a backdrop of existing lighting at Culina, associated with the adjacent George Headquarters Building and on the Coventry Road, however, the effects on the surrounding area are considered to be imperceptibly different from those arising from consented HGV Park on the site (which has been compared in this assessment), which would also be in operation 24/7.

9.4.76 Photographs included in **Appendix F.1** show the viewpoint locations discussed and agreed with HDC, specific and representative views of the Site and under each photograph there is a description of the following:

- a baseline description of the nature of the viewers/visual receptors;
- the nature of the view;
- the duration of the view;
- the importance of the view; and
- the context of the Site in the view, currently experienced in each case.

9.4.77 This information has been used in section 9.5 below to assist in reaching judgements on first the value and susceptibility of each visual receptor group, then the corresponding sensitivity of viewers and also to judge the nature (or magnitude) of changes that are likely to be experienced by each receptor group as a result of the proposed logistics development. By combining these judgements, the level of the visual effects on each identified receptor group has then been established.

*Visual receptor groups identified in the local area and the nature of the existing views experienced (Day and Night)*

9.4.78 The following paragraphs should be read in conjunction with **Figure 9.5b in ES Volume 3, Technical Appendix F.1**, which shows the zone of visual influence, **Figure 9.5c** which indicates the main receptor groups, the nature of the places from where views can be experienced and the location of agreed representative viewpoints which have been used to assess the nature of the existing views experienced and which will be used to assess the potential effects of the proposed scheme on visual receptors. The winter photographs, used for this assessment, can be found on **Figures 9.6a – 9.6zzr in ES Volume 3, Technical Appendix F.1**).

Zone 1

(To be read in conjunction with **ES Volume 3, Appendix F.1 Viewpoints 1 to 17 Figures 9.6a -9.6zzm**)

*North-west*

9.4.79 Site visibility from the north-west and east of the A5, at greater distances is restricted to walkers, road users and a small number of residents on south east facing upper slopes of local ridges at High Cross and Woodway Lane. The local ridge at Woodway Lane, together with existing tree lines and built development prevent views from the Village of Wibtoft and the Leicestershire Round footpath trail after it descends from High Cross, into lower lying land.

9.4.80 At night, residents on Woodway Lane will have ground floor views toward the Site which are partly filtered by a roadside hedge line and trees and otherwise clearer views from upper stories. As with the views experienced from Ullesthorpe, the Site, although unlit at present, is seen in the context of and against the existing backdrop of Magna Park where there is some existing sky glow, flood lighting effects on facades and some glare/spill from other lights. The view is wider but from a greater distance.

9.4.81 Also, to the north-west, visibility from the village of Claybrooke Parva is predominantly limited to walkers on sections of footpath outside the Conservation area and residential area. There is some very limited visibility out, toward the northern part of the site, from visitors to the Grade 1 listed Church of St Peter, but views are restricted by the density and layers of intervening

foreground mature hedges and tree vegetation, even in winter. Lodge Farm and the planted embankment of the disused railway also prevent outward views from the settlement. Views from other residences within the village are prevented by the topography as they are on lower lying ground orientated to the north.

- 9.4.82 At night, there are no direct views toward the Site from residents at Claybrooke Parva, however, there is potential for some indirect effects from sky glow. In the existing view from a footpath on the edge of Claybrooke Parva, there is some existing skyglow from Magna Park and the Site would be located in the foreground in a small part of the scene.
- 9.4.83 Closer to the Zone 1 part of the Site, from the north west, visibility is limited to walkers on sections of public footpaths, some residents at the White House, farm workers, and bridle way and permissive path users, within and in the countryside, to the west of the disused railway. From the east of the railway there are potential views from permissive paths and permissive open land (including visitors to an information sign at the northern corner of the Bittesby Village Scheduled Ancient Monument) and from users of a public bridleway W88. The disused railway embankment and establishing woodland along it restrict potential views to the east from the existing public footpath W89 between Ullesthorpe and Willey until they reach higher ground to the north where walkers and users of, part of, an area of open access land (outside the defined area of the Ullesthorpe Scheduled Ancient Monument site) have views in a south and south westerly direction from a location close to the south western edge of the village of Ullesthorpe. There are also some open near views of the north western part of application site from a section of footpath W89 after it crosses the parish boundary.

#### *North*

- 9.4.84 From the far north at a distance of 2.7km, there are some very limited views toward parts of the application site from Frolesworth Lane and the Frolesworth Road. In these views the settlement of Ullesthorpe is notable in the foreground on high ground edging the tributary valley and the views toward the Site over and along the valley are interrupted by layers of hedgerows and trees in pasture fields and aligning the watercourse and the Site is seen against a wooded backdrop.
- 9.4.85 From the village of Ullesthorpe itself, the topography, buildings, existing mature vegetation and the embankments of the disused railway prevent any views out from the Conservation area or core of the village. There are no direct views to the Site from visitors to the listed Ullesthorpe Windmill (when it is occasionally open to the public) in the centre of the village, as the direct views experienced through infrequent small leaded windows are orientated away from the Site and further to the east and west. There are some oblique views at two floor levels toward the eastern parts of the site, but these are partial and the site is seen in the context of the existing Magna Park beyond on higher ground. Visibility to the Site from the residential community of Ullesthorpe village is otherwise limited to views from some residents on the eastern fringe of the village to the north and south of the Lutterworth Road. From most properties the views are oblique in nature due to property orientations, are from the rear aspect and some are only from upper stories. However, there are also views from road users leaving the village on the Lutterworth Road where the Site will be largely seen in the context of the Manor Farm Wind turbine and the backdrop of Magna Park behind.

9.4.86 The Zone 1 Site itself is not visible from within the Ullesthorpe Moat scheduled monument site due to the intervening landform. However, there are some limited partial views to small parts of the north western part of the Zone 1 site, from the top parts of the surrounding field which is in open access land.

9.4.87 At night, there is some direct visibility from residents toward the Site from the eastern edge of Ullesthorpe and indirect views of the sky glow generated by Magna Park experienced by residents (identified at public consultation) elsewhere in the village. The Site, although unlit at present, is seen in the context of and against the existing backdrop of Magna Park where there is some existing sky glow, flood lighting effects on facades and some glare/spill from other lights.

*North-North East*

9.4.88 From the north-north east views toward the Site are limited to walkers on short sections of public footpath and road users on a short section of the Lutterworth Road in area of sloping high ground, south of the village of Ashby Parva. Views from the village of Ashby Parva and its residential community prevented by the rolling topography, with the exception of some limited views from the rear upper stories of four properties on the south western edge of the village which are largely screened by evergreen boundary vegetation enclosing the property boundaries.

9.4.89 There are closer views that will be experienced by bridleway users from intermittent sections of a public bridleway south of Chuckey Hall approaching the Site which are filtered by foreground hedged and treed field boundaries and occasional farm buildings and crops in summer. The most open views of the Site will be experienced by what appears to be a low frequency of users of the bridleway W88 where it passes through the application site, along a local open ridgeline.

*South East*

9.4.90 From the east, potential visibility is restricted to some workers at Magna Park and logistics park road users on the immediate western fringes of the logistics park and road and bridleway users on permissive paths along Mere Lane. Views from workers and road users within Magna Park are limited by existing woodland blocks enclosing the Park along the edge of Mere Lane and around the periphery of the field containing the Service Farm. Road users on Mere Lane predominantly experience a wooded character and wide grass verge appearance along this road, there are limited intermittent views toward the Site at field access points and where the field boundaries at the roadside are weak;

*West*

9.4.91 To the west of the Site visual receptors include walkers on a public footpath and bridleway users, in the Borough of Rugby, to the west of the A5 (see **Photo viewpoint 13**), road users on a short stretch of the A5 and road users on a short section of the Lutterworth Road (B4428) and a resident at Walton Lodge Farm. Walkers and bridleway users on routes to the south of the disused Rugby to Leicester Railway currently have limited views of the Site largely obscured by dense hedge lines and existing trees lining the A5 corridor, however, the views are more open where the routes meet the A5 (see **Photo viewpoint 16b**). Road users and a

resident at Walton Lodge Farm experience views of the Site and toward the A5 that are limited by existing foreground A5 roadside tree and hedge belts and by existing buildings within Magna Park;

- 9.4.92 There are also some views from some residents on Main Road in Willey directly across toward the central part of the site across the line of the disused railway. Views at an oblique angle in a more northerly direction are generally restricted by farm buildings in back lands. There is a partial view experienced by road users toward and over the north western part of the site. There is also very limited view from the church yard of St Leonard, Willey and an oblique view from a property, toward the north western part of the site.
- 9.4.93 Two locations on the edge of the A5 to the west of the Site between the proposed works and the village of Willey and a location on Main Street in Willey have been selected to consider the night time context from this orientation. The existing view toward the Site experienced by road users and indirectly from residents from this angle of view includes some glare and sky glow arising from the existing Magna Park and the frequent stream of headlights from vehicles on the A5 (not depicted in photographs to enable capture of Magna Park and the Site). There are no existing street lights in the foreground section of the A5 nor on Mere Lane nor on the arable fields of the Site. From Main Street, some limited sky glow from Ullesthorpe is present but the sky is generally quite dark.

#### *Future baseline*

- 9.4.94 In the absence of the scheme, the existing daytime visual context is anticipated to persist with the exception of the following: some limited further growth of the woodland around the adjacent Magna Park but not to the extent that it would conceal buildings from view, further growth of the woodland on the existing disused railway embankment, potentially some decline in hedgerow Ash trees from disease, some further growth of woodland plantations in, alongside the Site introduced under the Countryside Stewardship Scheme and a reduction in accessible views across the landscape following the ending of permissive access rights in October 2017.

#### *The night time visual context of the Site and receptors*

- 9.4.95 The Site is located within an area defined as brighter and adjacent to an area of greater light saturation, on the CPRE night skies Map for the East Midlands.
- 9.4.96 The Site, at night, can broadly be classified into two Institute of Lighting Engineers 'Environmental Zones'<sup>5</sup>. The area of the Zone 1 Site to the south east of Mere Lane is enclosed on three sides by the existing lighting of Magna Park and there is some existing street lighting where the Site adjoins the existing Argosy Way, in Magna Park. Therefore although not directly lit from within, this part of the Site is heavily influenced by and can currently be considered to closely reflect the characteristics of 'Environmental Zone 3 - a medium district brightness area, equivalent to a small urban location'. Similar existing conditions exist in the local context to the Zone site, south of Magna Park.
- 9.4.97 On the part of the Zone 1 Site to the north-west of Mere Lane the context and nature of the night time baseline conditions is considered to be different. Whilst there are the immediate

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<sup>5</sup> Institute of Lighting Engineers, Guidance Note for the reduction of obtrusive light, 2005



effects of illumination arising from a context alongside Magna Park and sky glow from the park and some from surrounding villages, there is no existing street lighting on Mere Lane, or on the section of the A5 to the west. This part of the Site does not have any existing lighting and is only otherwise currently lit up by passing car headlights on the A5 and the headlights of vehicles moving to and from Bittesby House and farm. There is also some lighting arising from Bittesby House and farm buildings and from the nearby cottages and from White House Farm but all at relatively low levels. Therefore, the existing Environmental Zone for this part of the Site is considered to be '*Environmental Zone 2*' – '*a low district brightness area*' – equivalent to a '*rural, small village or relatively dark urban situation*'.

9.4.98 A separate lighting engineer report for Magna Park and a lighting strategy for the proposed Site have been included in **ES Volume 3, Technical Appendix F.7**, to inform the night time visual assessment and judgements made regarding potential night visual effects, arising from the proposals.

9.4.99 A visual 'night time' /darkness survey was carried out in the field, in February 2015, and this has enabled a baseline assessment of potential visual receptors, to be established, in the following locations, which have been agreed with HDC. Viewpoints have been identified as representative of the surrounding communities of Willey, Ullesthorpe, Woodway Lane and Claybrooke Parva. An assessment of the impact of lighting arising from this development on the village of Bitteswell, has been scoped out of this assessment, as despite mention of that settlement in the lighting report, effects on the community of Bitteswell are considered to principally arise from the existing Magna Park which is in an intervening location. Representative Viewpoints included in **ES Volume 3 Technical Appendix F.1**, on the edges of Willey, Ullesthorpe and Claybrooke Parva has therefore been used for the assessment of potential night time effects, as a proportionate response. As for daytime viewpoints, a baseline description of the nature of the visual receptors and the nature of existing night time views is provided under night photographs, identified below and included in **ES Volume 3, Technical Appendix F.1**.

*Future baseline*

9.4.100 At night, in the absence of the scheme, the existing levels of light and night time context are likely to persist, with some limited, incremental improvements as existing lights are upgraded, as there is no planning justification or commercial basis for modernising the lighting otherwise.

Zone 2

(To be read in conjunction with **ES Volume 3, Appendix F.1 Viewpoints 18 to 22 Figures 9.6zzn -9.6zzr**)

*South-west and South*

9.4.101 To the south west the viewers of the scheme include road users passing along a short stretch on the Lutterworth Road at a distance of 650m. From this location, Zone 2 of the application site is located alongside the existing Culina warehouse and set behind mature trees and hedgerows and on land that is lower than the viewpoint. Combined, these would limit views of the application site in both winter and summer. Traffic passing along the A5 also interrupts views toward the application site.

9.4.102 There are closer views of the Site from the north bound carriageway of the A5 alongside the Liberty Hotel at a distance of 400m. The application site is set in the middle ground, in the centre of the view; behind a mature hedge and tree lined field boundary (tree canopies would be more open, in winter). The site is seen within a local setting of office and warehouse buildings with tree belts developing around them. The foreground arable field and positive long views across to Lutterworth are maintained outside the application site.

*North*

9.4.103 From the north the main viewers of the Site are workers, on the edge of Magna Park, in nearby in offices and road users on a section of the A4303, at a distance of 300m. The application site is located alongside the existing Culina warehouse and George building from which there would be some direct views from four windows at upper levels, which would look largely over and across the site, as it slope away. Developing planting on the boundary of the George Site partially filters views to the access road and at lower levels. The site otherwise is set behind a dense hedgerow that would limit views in winter and summer at lower levels in views experienced by passing traffic on the A4303.

*East*

9.4.104 From the east the main viewers of the application site are horse riders and walkers on bridleway X32 at the end of Moorbarns Lane. From this location, Zone 2 of the application site is seen set down on the local horizon below and against the back drop of existing warehouse and office buildings and/or establishing woodland belts. The mature hedge and tree line on the southern boundary of the application site is largely concealed by mature woodland blocks in the foreground which interrupt views toward the application site in summer and would filter views in winter. Eventually as these belts mature further views toward the application site would predominantly be restricted to the foreground arable field.

*South east*

9.4.105 From the south east the Site can be viewed by horse riders and walkers on another section of Bridleway X32 and a resident at Moorbarns. The application site is seen in the distance, in the centre of the view, set behind the tree and hedgerow defined southern boundary and is set down in the foreground of existing office and warehouse buildings. Foreground arable fields and hedgerows are maintained and are unaffected by the application site.

*Future baseline*

9.4.106 In the day time, the future baseline is considered to be the implemented and operational consented HGV Park scheme, with its associated developing new landscape infrastructure and maturing existing boundary vegetation.

*The night time visual context of the Site and receptors*

9.4.107 The lighting and levels, on the application site, assumed to exist and providing the baseline is the implemented LED lighting scheme that forms part of the consented HGV lorry Park for the site and associated building lighting. This lighting scheme includes would be in operation to support 24/7 activity and extends across the Zone 2 application site and along the main access road to tie in with existing lighting serving the George Headquarters to the north. The

proposed light fittings are directional, have flat glass and are supported on columns of 10m in height. This lighting would add to the immediate context of street lights within the adjacent office and Warehouse units and would be seen from the principal receptor, at night, road users on the A5 against the backdrop of this lighting and the existing sky glow emanating from Magna Park.

*Future baseline*

9.4.108 At night, in the absence of the detailed application scheme, the same existing levels of light and night time context but with the lighting associated with the consented HGV Park on the site, would persist, with incremental improvements anticipated over the long term, to the existing lighting around buildings in the adjacent Magna Park.

*Selected Representative Viewpoints*

9.4.109 Following consideration of the baseline findings and following scoping consultation, the following visual receptors (listed in **Table 9.2**) have been identified for considering the landscape and visual effects of the proposed development in **section 9.5**.

9.4.110 **ES Volume 3, Technical Appendix F.1, Figures 9.5b and 9.5c**, show the viewpoints that have been selected from a variety of locations, receptor groups and distances, together with static and transient viewpoints, in order to create a representative series of photographs to assess the effects of the proposed development.

**Table 9.2: List of visual receptor groups/viewers of the development**

<b>Visual Receptors /viewers</b>	<b>Photograph Ref in Vol 3 ES Tech. Appendix F.1</b>
<i>Zone 1 Parts of the Application Site</i> Walkers on the Leicestershire Round from within and near to the Scheduled Monument at High Cross	Representative Viewpoints 1a and 1b (Figure 9.6a and 9.6b)
Resident at Claybrooke Grange and road users on Frolesworth Road	Representative Viewpoint 2a and 2b (Figure 9.6c and 9.6d)
Residents and road users on Woodway Lane	Representative Viewpoints 3 (Figure 9.6e)
Night time Residents on Woodway Lane	Representative Viewpoints 3 (Figure 9.6f)
Visitors to St Peter's Church, Claybrooke Parva	Representative Viewpoints 4ai (Figure 9.6g)
Walkers on footpaths south of Claybrooke Parva	Representative Viewpoints 4aii and 4aiv (Figures 9.6h and 9.6j to 9.6k)

<b>Visual Receptors /viewers</b>	<b>Photograph Ref in Vol 3 ES Tech. Appendix F.1</b>
Night time - Community of Claybrooke Parva	Representative Viewpoint 4aii (Figure 9.6i)
Walkers on footpath W92 and residents at the White House	Representative Viewpoint s 4bi and 4bii (Figures 9.6L and 9.6m)
Bridleway users on W86	Representative Viewpoints 4ci-4cvii (Figures 9.6n and 9.6s)
Visitors to the Ullesthorpe Moat SM	Representative Viewpoints 5ai and 5aii (Figures 9.6t and 9.6u)
Visitors to the Ullesthorpe open access land	Representative Viewpoint 5aiii (Figure 9.6v)
Walkers on footpath W89 and in open access land south of Ullesthorpe	Representative Viewpoints 6ai to 6aiv (Figures 9.w and 9.6z)
Walkers and horse riders on a permissive path south of Ullesthorpe	Representative Viewpoints 6b (Figure 9.6za)
Specific view and visitors on permissive paths and on permissive open access land at Bittesby Scheduled Monument	Representative Viewpoint 7 (Figure 9.6zb)
Residents and users of the Lutterworth Road on the eastern edge of Ullesthorpe	Representative Viewpoint 8ai (Figure 9.6zc)
Night time Community of Ullesthorpe	Representative Viewpoint 8ai (Figure 9.6zd)
Sequential views taken from the Ullesthorpe Windmill	Representative Viewpoints 8aii and 8aiii (Figures 9.6ze, 9.6zf and 9.6zg)
Road users and a resident on Lutterworth Road	Representative Viewpoint 8b (Figure 9.6zh)
Bridleway users between Chuckey Hall and the A5, near Willey	Representative Viewpoints 9a,9bi, 9bii and 9c (Figures 9.6zi to 9.6zL)
Walkers on a footpath, some residents and road users on the Ullesthorpe Road, to the south of Ashby Parva	Representative Viewpoints 10a and 10b (Figures 9.6zm and 9.6zn)

<b>Visual Receptors /viewers</b>	<b>Photograph Ref in Vol 3 ES Tech. Appendix F.1</b>
Workers within Magna Park	Representative Viewpoint 11 (Figure 9.6o)
Road users on Mere Lane and users of adjacent permissive bridleway routes	Representative Viewpoints 12a to 12f (Figures 9.6zp to 9.6zu)
Road users on Coal Pit Lane and nearby walkers on footpaths to the north of Willey in the Rugby Green belt	Representative Viewpoints 13,14a and 15 (Figures 9.6zv,9.6zw and 9.6zzd)
Walkers on footpaths to the south of Willey	Representative Viewpoint 14b (Figure 9.6zx)
Road users and residents on Main Road in Willey	Representative Viewpoints 14c and 14 d (Figures 9.6zy and 9.6zza)
Night time - Road users and residents on Main Road in Willey	Representative Viewpoints 14c and 14 d (Figures 9.6zz and 9.6zzb)
Visitors to the Churchyard of St Leonard, Willey	Representative Viewpoint 14e (Figures 9.6zzc)
Road users, walkers alongside the A5 and workers at Willey Fields Farm	Representative Viewpoints 16a to 16eii (Figures 9.6zze, 9.6zzf, 9.6zzh, 9.6zzi,9.6ssj and 9.6zzL)
Night time – road users on the A5, the Community of Willey and residents at White House Farm	Representative Viewpoints 16b and 16d (Figures 9.6zzg and 9.6zzj)
A resident at Walton Lodge Farm and road users on the Lutterworth Road to the south	Representative Viewpoint 17 (Figures 9.6zzm)
<i>Zone 2 Parts of the Application Site</i> Road users on the Lutterworth Road	Representative Viewpoint 18 (Figures 9.6zzn)
Road users on the A5 and visitors to the Liberty Hotel	Representative Viewpoint 19 (Figures 9.6zzo)
A resident and walkers and horse riders on bridleway X32	Representative Viewpoint 20 (Figures 9.6zzp)
Walkers and horse riders on Bridleway X32	Representative Viewpoint 21 (Figures 9.6zzq)

Visual Receptors /viewers	Photograph Ref in Vol 3 ES Tech. Appendix F.1
Road users on the A4303 and adjacent workers in offices	Representative Viewpoint 22 (Figures 9.6zzr)

### Visually verified montages

- 9.4.111 In addition to the representative day and night time views, locations for visually verified montages (VVM's) have also been agreed with Harborough District Council.
- 9.4.112 The selected viewpoints **Photo viewpoints 3,4aii, 5aii, 6ai, 7, 8ai, 12d, 13, 14e, 16b and 19** were agreed with HDC, as the locations where Visually Verifiable Montages (VVM's) should be prepared (**See ES Volume 3, Technical Appendix F.4 – Part 2 HDC Consultation note**). The selected verified views have also been shared with and presented to English Heritage and representatives from Leicestershire County Archaeology to enable them to give them their consideration. For these views which depict the development proposals, winter photographs have been used, as far as possible and wire line and block model images have been prepared for the Outline Application Area and a realistic montage in the opening year and at year 10 for the detailed application Site.. The vegetation growth rates indicated in the VVM's have been based upon observed growth rates for native species recorded in the Hayden's Arboriculture survey report (appended to this chapter in the **ES Volume 3, Technical Appendix F.6**) where usefully vegetation planted in 2006 under the HLS has been re measured. A summary note explaining the vegetation growth assumptions made and then used in VVM's, is also included at the front of **ES Volume 3, Technical Appendix F.6**.
- 9.4.113 The list of the visual receptor groups/viewers and VVM's of the Site have been used in the next section to assess the visual effects of the development.

### Further considerations

- 9.4.114 Two further points of note before the consideration of visual effects are first, that Emmanuel and Lodge Cottages, Bittesby House and Bittesby Cottages within the application boundary, on the grant of planning permission will be demolished to make way for the Zone 1 scheme. Therefore, consideration of the effects of viewers at these places is not included in this visual assessment.
- 9.4.106 Also, a further point of relevance to this baseline and the following assessment of visual effects, is the consideration that whilst some viewpoints have been selected to represent effects from visual receptors/viewers using current permissive routes and permissive open access land (in the case of Bittesby Scheduled Monument), in and around the Site, it is important to note that access to these locations is not permanent and that the landowner's Natural England Higher level Stewardship Agreement and permissive access is due to end in October 2017 (as stated on published site signs). Therefore, views from these locations may need to be considered as temporary (unless future permanent access is proposed in these positions, as part of this application). The location of the current permissive routes, in Zone 1,



is shown on **ES Volume 3, Appendix F.1 Figure 9.4a**. Intended, future access routes are indicated in the scheme design and access statement. Where viewpoints are from permissive paths or open access areas this has been identified under viewpoint photographs and in the text which describes the nature of visual receptors and the effects upon them in **sections 9.5 and 9.6**.

## 9.5 Construction Effects and Mitigation

- 9.5.1 The assessment of construction effects on identified landscape and visual receptors groups has been prepared with reference to the construction phase description of development included in **Volume 2, ES Chapter 2**. The identification of the likely level of effects on the landscape as a resource and the visual context has been used to help inform the design process and highlight where it may be important to prevent/avoid, reduce and where possible remedy any adverse landscape and visual effect or provide opportunities for enhancement. The development has been assessed on the basis that all landscape and visual mitigation has either been included in the scheme design (as part of an iterative design process) and/or within Hayden's Arboriculture Report, submitted with the application and included in **ES Volume 3, Appendix F.6**. Included mitigation, during construction, will be referred to as the 'scheme design' in the process of determining the magnitude of effects. The same approach will be adopted for the assessment of operational impacts in this chapter.
- 9.5.2 Only measures that are evident in the scheme parameter plans and lighting strategy in the case of Zone 1 of the application site are given primary consideration when assessing the predicted nature of effects, as further details are not available in the context of an outline application. Full details are assessed in the case of the detailed application for the Zone 2 part of the application site.
- 9.5.3 As mitigation measures have been incorporated into the scheme design, consented planning drawings and subsequently, a consented arboriculture method statement (AMS) and the formal approval of the measures incorporated in a project Construction Management Plan CMP and/or Construction and Environmental Management Plan CEMP, would ensure the deliverability of mitigation proposed.
- 9.5.4 The key mitigation measures incorporated into the scheme design in response to potential impacts identified during construction include:

*Within the Landscape Receptor 1 - Lutterworth Lowlands LCA*

(This includes part of the Zone 1 Site to the south east of Mere Lane and addressed separately below, the Zone 2 site to the south of Magna Park)

*Zone 1 – to the south east of Mere Lane*

Avoidance measures include:

- avoidance of a road alignment through the area to the south east of Mere Lane that would impact upon the adjacent settlement pond and its margin. Protective construction fencing to be used alongside the road construction working area to avoid access and disturbance to grassland, beyond the essential limits;

- creation of the new access road through this area, as a first phase of the development, to avoid the use of Mere Lane for construction traffic;
- the use of an existing access route for construction access alongside the Magna Park service farm when constructing additional bio discs, avoiding the need for an additional route. Also, use of this corridor for any required service connections.

Reduction Measures include:

- focussing the alignment of the new road corridors, during construction, toward narrow woodland strips on the part of the Site to the south east of Mere Lane;
- incorporation of advanced tree and vegetation protection fencing measures and a watching brief and Arboriculture method statement for conserving existing vegetation, through the construction phase;
- limiting establishing scrub/woodland removal, by defining the site strictly with tree protection fencing, during construction, alongside the service farm, where additional bio discs are to be accommodated;
- tree protection fencing to be employed to limit encroachment of the new A5 road edge widening works, alongside Magna Park, during construction, to reduce any effects on trees and vegetation on roadside embankments.

#### *Zone 2- to the south of Magna Park*

Avoidance Measures include:

- tree protection fencing to be employed along the southern boundary, during construction, to protect existing boundary trees and vegetation, from earthworks and other construction activity and operations.

#### *Within the Landscape receptor 2 - Upper Soar LCA*

(Within Zone 1 to the north-west of Mere Lane and comprising two landscape types each considered separately below)

#### *Zone 1 - Landscape Type - Low lying clay vale farmland with gentle ridges*

Avoidance measures include:

- during construction, avoidance of mature vegetation, as far as possible;
- the scheme generally avoids the existing main watercourse routes, shallow valley bottoms and marginal vegetation, during construction, however, there are places where watercourse crossings cannot be avoided to deliver access, Water flow and habitat connections will be maintained, in each of these locations (also **See ES Volume 2, Chapter 8 Hydrology and Chapter 12 Ecology and Nature Conservation**);
- avoidance of the existing hedges and trees forming providing a wooded character to the eastern boundary of the main site, along Mere Lane, and the majority of the

section of hedge between the Mere Lane Lagoon and the area proposed for site attenuation ponds;

- grading of the proposed wooded bank on the western edge of Parcel G to avoid extending impacts into adjacent land further than necessary;
- interventions that would remove the positive characteristics of the winding, wide grass verges and wooded context of Mere Lane have been avoided;
- a new small visitor car park is proposed to be constructed on the edge of a small arable field to the north of the Mere Lane Lagoon. This location avoids impacts on existing woodland, wider visual effects and is a location with good links to the lake and the wider network of paths for informal recreation.
- avoidance of spreading of top soil for reuse in the area proposed for arable reversion to meadow land, in the large fields to the east of the scheduled monument where this would encumber future archaeological investigation of remains. Areas for top soil spreading to be agreed with the County Archaeologist and incorporated into an approved construction management plan;
- avoidance of new hedge or tree planting on arable farmland to be converted to meadow land to the east of the Bittesby Scheduled Monument where this would be in conflict with the protection of buried archaeological deposits. Detailed areas for any proposed planting in this area to be agreed with the County Archaeologist and incorporated into detailed planning submission drawings.

Reduction Measures include:

- potential impacts have been reduced, by siting a building of the scale of up to 23m on Parcel G, in large scale arable fields where effects on existing boundary landscape features can be reduced. Other parcels have also been focussed where the existing field pattern is large to reduce hedgerow and boundary feature impacts as far as possible;
- reduction of potential woodland belt loss and loss of existing arable land by siting the new access road and junction arrangements alongside but set away from existing woodland edges along Mere Lane;
- reduction of top soil removal from site to a minimum by its incorporation into planted banks in forms and locations where they contribute to safeguarding adjacent landscape character or avoid adverse impacts on existing mature vegetation. The scheme landscape proposals indicate some locations that can be utilised;
- incorporation of advanced tree and vegetation protection fencing measures, a watching brief and Arboriculture method statement for conserving existing vegetation through the construction phase;
- taking opportunities to transplant and re use young trees below 150mm girth, that have to be cleared in the vicinity of proposed new Mere Lane roundabout junction and other locations to be confirmed as suitable. These works would to be carried out in

accordance with an arboriculture method statement (AMS) and coordinated with detailed phasing and access arrangements;

- a new service farm would be installed at the far northern end of this part of the site on lower land and this has been scaled and sited away from nearby residential properties and in a location where it would be shielded from those properties by the future Parcel L. This location also is responsive to the prevailing wind direction, also to safeguard residential amenities;
- drainage and service infrastructure to be focussed within the proposed main access road principally its immediate footpaths and designated verge service strips and under roads branching off this;
- reduction in the use of temporary lighting, to a minimum and the use of shielding measures, on all fittings to prevent glare effects, including during the construction of the widening works along the A5 and along the A5 link road and at new roundabout junctions;

Remedial Measures include:

- temporary and new alternative access arrangements would be provided, during construction of the new buildings and access roads, to maintain agricultural accesses and access to Bittesby House and Farm in the shorter term. An alternative access routes can be sited and designed in a manner that maintains arable land uses and is consistent with the nature of existing farm tracks in the local landscape.
- some existing public rights of way (PROW's) including bridleways W86 and W88 and footpaths W89, W92 and some permissive routes in the south east and west of this area, that would be impacted by earthworks operations would need to be diverted (some permanently), to their new positions and this would be coordinated with detailed phasing arrangements in the context of a construction management plan( to be approved by the LPA, to avoid live construction sites;
- replacement planting would be implemented around the edges of the Site in key strategic locations, on the edges of parcels and along new roads to replace removed woodland and hedge vegetation. New road side planting would be introduced in locations around the new roundabout junction on Mere Lane and to create a replacement hedged and wooded edge to the new roads;
- where there are small areas of existing woodland planting or sections of existing hedges within this part of the site that need to be removed, during construction, connectivity between adjacent areas of existing planting will be restored through the use of new planting in the form of hedges, spinneys and wet woodland copses;
- the scheme also proposes to include some reversion of the intensively farmed arable fields to the east of the Bittesby Scheduled Monument, after some targeted top soil disposal, to the meadow land, for heritage, recreation, nature conservation and water quality benefit. A new series of SUDS ponds will also be introduced and will contribute additional wetland habitat and contribute to restore and maintain a wildlife corridor and manage water quality, throughout this part of the site and outside of the floodplain.

These areas would add to the positive adjacent existing wetland habitat retained around the Mere Lane Lagoon;

- timing of earthworks to coincide with spring and early summer to limit damage to excavated top soil. Movement of topsoil to final resting places as far as possible to reduce double handling. The 'Code of practice for the sustainable use of soils on construction sites', DfE, March 2011<sup>6</sup>, is to be referenced in a project CEMP at the planning condition stage and client requirements so that its good practice is followed by the groundwork contractor;
- road crossings of existing ditch/stream watercourses to be constructed in accordance with best practice and culverts constructed in accordance with Environment Agency requirements **See Chapter 8, in ES Volume 2, Hydrology**, for further details. Mammal ledges would be incorporated within culverts to maintain habitat connectivity alongside the water course.

Compensation Measures include:

- Local ditch diversions would be required in the southern and western parts of this area and new culverts built under the new bank on the site boundary of Parcel G and under the new access road to link with new attenuation wetlands in the adjacent tributary valley. Existing ditches habitats and flow paths would be compensated for by the creation of alternative swales and the wetland attenuation areas (**See Chapter 8, in ES Volume 2, Hydrology and the appended scheme drainage strategy**);
- If removed trees are not suitable for transplanting, as they are above 150mm girth, the removed tree timber would be utilised as secured woodpiles within the scheme for nature conservation benefit.

#### *Zone 1 - Landscape Type - Soar tributary flat floodplains and terrace*

Avoidance measures include:

- avoidance of any direct or indirect effects on the Bittesby Scheduled Monument and the disused railway embankment and associated woodland and habitat features in the vicinity. Avoidance of any changes to the hydrological regime passing through the Bittesby Scheduled monument and onward from the Site (**See Chapter 8, in ES Volume 2, Hydrology and the appended scheme drainage strategy for further details**);
- during construction, avoidance of any potentially damaging works near to vegetation identified to be retained on Hayden's Tree Protection drawings and within the arboriculture method statement (AMS) included in ES Volume 3 Technical Appendix F.6;
- avoidance of the existing hedge and trees providing a wooded character to parts of the riverine corridor and providing a buffer between construction operations along the

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<sup>6</sup> Code of practice for the sustainable use of soils on construction sites, Department for the Environment, March 2011

the western edge of Bittesby deserted village scheduled monument site and heading south east toward Bittesby Farm.

- incorporation of a buffer zone defined by tree protection fencing along the western edge of Parcel F, to protect the watercourse and associated vegetation and habitat;
- avoidance of any construction lighting within this area of the site;
- avoidance of areas for wetlands on land south of the Bittesby Scheduled Monument site, in the tributary valley where there could be heritage features which would need to be conserved.

Reduction Measures include:

- clear access restrictions to prevent any access or works on the scheduled monument site and the main watercourses, with advanced tree protection fencing sited to define strict boundaries to the works;
- the scheme construction works would generally avoid the existing main watercourse routes, shallow valley bottoms and marginal vegetation, during construction (as identified above), however, there is one location in this area where a watercourse crossing to create a bridging point for the new internal access road cannot be avoided. Water flow and habitat connections will be maintained through a construction method statement and the corridor effected restricted to a minimum with defined tree protection fencing in this location (also **See ES Volume 2, Chapter 8 Hydrology and Chapter 12 Ecology and Nature Conservation**);
- potential impacts of adjacent road building and building construction works have been reduced, by siting road corridors and building parcels away from the Soar Tributary valley landscape type as far as practicable and by limiting potential encroachment in the vicinity of the most sensitive areas. The existing railway embankment assist in buffering some of the potential construction disturbance on the scheduled monument site during regrading works to the north;
- reduction of potential wet woodland belt loss in the tributary valley to the north of the railway embankment and loss of existing grassland alongside the watercourses and the recently created wetland scrapes habitat by limiting the extent of earthworks for new attenuation features in this area through the scheme design and protective fencing measures.
- reduction of top soil removal from site to a minimum by its incorporation into banks in forms and locations where they contribute to safeguarding adjacent landscape character, mitigating visual effects and in this area in particular, for the creation of a new attenuation wetland to the east of Parcels J and K, but in a manner that avoids adverse impacts on existing mature vegetation. The scheme landscape sections in **ES Volume 3 Appendix A.1** indicate some locations that would be utilised;
- incorporation of advanced tree and vegetation protection fencing measures, a watching brief and Arboriculture method statement for conserving existing vegetation through the construction phase;



- taking opportunities to transplant and re use young trees below 150mm girth, that have to be cleared in the vicinity. These works would be carried out in accordance with an arboriculture method Statement (AMS) and coordinated with detailed phasing arrangements.
- drainage and service infrastructure to be focussed within the proposed main access road principally its immediate footpaths and designated verge service strips and under roads branching off this,

Remedial Measures include:

- temporary and new alternative access arrangements would be provided, during construction earthworks operations, to maintain agricultural accesses in the shorter term. Alternative access routes to be agreed with the farmer and identified within a construction management plan to be submitted under a pre commencement planning condition;
- some existing public rights of way (PROW's) including bridleways W86 and W88 and footpaths W89 and some permissive routes in this area that would be impacted by earthworks operations and the road crossing of the main tributary would need to be diverted (some permanently), to their new positions and this would be coordinated with detailed phasing arrangements in the context of a construction management plan( to be approved by the LPA, to avoid live construction sites;
- replacement wet woodland and other planting would be implemented around the new attenuation features, also, alongside the adjacent road corridor south east of the railway and on edges in key strategic locations, including on the banks to the east of parcels J,K and L;
- where there are small areas of existing woodland planting or sections of existing hedges within this part of the site that need to be removed, during construction, connectivity between adjacent areas of existing planting will be restored through the use of new planting in the form of hedges, spinneys and wet woodland copses;
- a new series of SUDS wetlands would be introduced and will contribute additional wetland habitat and contribute to enhance wildlife and recreation corridors and manage water flow and quality, throughout this part of the site and in the adjacent landscape type of the site, outside of the floodplain. These areas would add to the conserved positive wetland habitat already in this area;
- timing of earthworks to coincide with spring and early summer to limit damage to excavated top soil. Movement of topsoil to final resting places as far as possible to reduce double handling. The '*Code of practice for the sustainable use of soils on construction sites*', DfE, March 2011<sup>7</sup>, is to be referenced in a project CEMP at the planning condition stage and client requirements so that its good practice is followed by the groundwork contractor;

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<sup>7</sup> Code of practice for the sustainable use of soils on construction sites, Department for the Environment, March 2011

- the road crossing of the existing main tributary ditch/stream watercourse to be constructed in accordance with best practice and with any abutments avoiding interrupting water flow. Culverts, if required, would be constructed in accordance with Environment Agency requirements **See Chapter 8, in ES Volume 2, Hydrology**, for further details. Mammal ledges would be incorporated within any culverts to maintain habitat connectivity alongside the water course.

Compensation Measures include:

- Local ditch diversions would be required in the northern parts of the site in the low lying clay vale farmland and would connect into newly constructed water attenuation features, located outside the flood plain and seasonally wet areas within the tributary valley area. Existing piped connections from these ditches that pass under fields in the tributary valley would be compensated for with the creation of alternative shallow swales, out falling from the wetland attenuation areas to meet the existing main channel. The final locations and form of the features would need to be agreed with the Environment Agency (**See Chapter 8, in ES Volume 2, Hydrology and the appended scheme drainage strategy**).

#### *Landscape Receptor 3 - The High Cross LCA*

(Including parts to the west of the A5 alongside Zone 1 to the north of Magna Park and considered separately below, parts to the west of the A5 alongside Zone 2, south of Magna Park)

#### *Zone 1 – parts to the west of the A5 to the north of Magna Park*

Avoidance measures:

- General avoidance (with the exception of a small length alongside the new roundabout junctions) of existing hedge planting and verge areas to the west of the A5 and avoidance of some existing mature roadside trees to the south-west of Emmanuel and Lodge Cottages.

Reduction measures:

- Reduction of the potential effects of night time working and associated lighting along the widened stretch of the A5. Any introduced lighting would face away from nearby residential properties wherever possible and lights would be shielded to prevent glare to any residential property and road users. This would be secured through the Construction Management Plan (CMP) to be submitted and approved/secured by planning condition.

Remedial Measures:

- Replacement of removed section of hedgerow to the west on land controlled by the applicant and replacement planting along the eastern side of the A5 to address vegetation loss and deliver a positive roadside character.

*Zone 2 - parts to the west of the A5 to the south of Magna Park*

Avoidance measures:

- There are no significant construction impacts anticipated affecting this area. The application site avoids impacting upon the line of trees and vegetation bordering the A5, off site, which would continue to provide some visual containment of construction operations, but this, would be less effective in the winter months.

Remedial Measures:

- Replacement of a removed section of hedgerow to the west of the application site with the planting of a new western native boundary planting belt to define and begin to provide some further visual containment along the western boundary of the new scheme.

9.5.5 The construction stage assessment findings in terms of the predicted level of effect reflect the incorporation of the above measures.

**Potential Impacts/Issues**

9.5.6 Summary tables of the anticipated construction impacts effecting landscape and visual receptor groups are provided below in **Table 9.3**. This section then first assesses the construction impacts and associated effects on the identified landscape receptors and this is followed by consideration of the construction stage effects on identified visual receptor groups.

**Table 9.3: Anticipated construction impacts**

Landscape Receptor	Anticipated construction stage impacts
<b>Landscape receptors</b>	
<p><b>Receptor 1 – Lutterworth Lowlands LCA</b> Zone 1 – To the south east of Mere Lane</p>	<p>Enabling stage vegetation removal Construction stage earthworks road and landscape Infrastructure installation construction traffic/activity</p>
<p>Zone 2 – To the south of Magna Park</p>	<p>Enabling stage vegetation removal Construction stage earthworks Road and landscape Infrastructure installation Drainage works Building construction and lighting installation Construction traffic/activity</p>

Landscape Receptor	Anticipated construction stage impacts
<p><b>Receptor 2 – Upper Soar LCA</b> Zone 1 - Low lying clay vales farmland landscape type</p> <p>Zone 1 - Soar tributary floodplains and terrace landscape type</p>	<p>Enabling stage vegetation removal Demolition of Bittesby House, Bittesby Farm, Bittesby Cottages, Emmanuel and Lodge Cottages Construction stage earthworks Building, new roads installation (including A5 works) Attenuation/drainage/ service farm works Landscape Infrastructure Construction traffic/activity Diversion of Permissive and public rights of way Indirect effects from Soar tributary floodplains and terrace landscape type construction works</p> <p>Enabling stage vegetation removal Demolition of part of Bittesby Farm Construction stage earthworks Building Construction in part of Parcel F, new internal roads and main tributary road crossing installation Attenuation/Drainage works Landscape Infrastructure Construction traffic/activity Diversion of Permissive and public rights of way Indirect effects from Soar tributary floodplains and terrace landscape type construction works</p>
<p><b>Receptor 3 – High Cross Plateau</b> Zone 1 – West of the A5, north of Magna Park</p> <p>Zone 2 –West of the A5, south of Magna Park</p>	<p>Indirect effects of vegetation removal Construction of the A5 widening/junctions Construction stage earthworks building construction activity including cranes Construction traffic/activity</p> <p>Indirect effects of vegetation removal Construction stage earthworks building construction activity including cranes Construction traffic/activity</p>
<p><b>Visual receptors</b></p>	

Landscape Receptor	Anticipated construction stage impacts
<p><i>Zone 1 parts of the Application Site</i></p> <p>Walkers on the Leicestershire Round and two residents, from within and near to the Scheduled Monument at High Cross</p>	<p>Views 1a and 1b - Temporary building construction activity including cranes</p>
<p>Resident at Claybrooke Grange and road users on Frolesworth Road</p>	<p>View 2a and 2b - Temporary building construction activity including cranes</p>
<p>Residents and road users on Woodway Lane</p>	<p>View 3 - Vegetation removal along Mere Lane and around Bittesby House, some limited hedge removal in parcels, temporary construction operations including, earthworks, some limited road construction, building construction including temporary concrete mixing plant, cranes for installation of new buildings in Parcels G, I, J and Land fit out operations</p>
<p>Night time - residents on Woodway Lane</p>	<p>View 3 - Some temporary construction operation lighting during building, road construction and from building cranes used for installation of new buildings</p>
<p>Visitors to St Peter's Church, Claybrooke Parva</p>	<p>View 4ai – Views of some building construction operations and cranes associated with buildings in Parcels L and K</p>
<p>Walkers on footpaths south of Claybrooke Parva</p>	<p>View 4aii – Some visible vegetation removal around Bittesby House, Temporary building construction activity, including from cranes in all parcels. From View 4aiii - some limited visible building construction, and cranes</p> <p>View 4aiv- Views of some building construction operations and cranes associated with buildings in Parcels G, J and K, planting works</p>
<p>Night time - Community of Claybrooke Parva</p>	<p>View 4aii – Glimpsed views of some temporary construction operation lighting during building and road construction and lighting on cranes used for installation of new buildings.</p>
<p>Walkers on footpath W92 and residents at the White House</p>	<p>View 4bi-Building construction cranes and building construction would be visible in most Parcels. Some earthworks operations partially visible.</p> <p>View 4bii – Walkers-Some hedgerow removal, construction of buildings in Parcels L, K, J, I and G</p>

Landscape Receptor	Anticipated construction stage impacts
	cranes, and earthworks operations, planting works Resident Earthworks and Parcel L building construction and cranes, planting works
Bridleway users on W86	View 4ci- Cranes and upper building frame construction in Parcels K and L  View 4cii, 4ciii and 4civ-Parcel J, K and L building construction, cranes, earthworks filling to create wetlands and creation of service farm and planting works  View4cv- Parcel J and E building construction, cranes, internal road and watercourse crossing construction  4cvi- Parcel E, and H and I , building construction earthworks, cranes, pitch creation and planting works
Visitors to the Ullesthorpe Moat SM	View 5ai – No effects anticipated  5aaii – Visible Cranes and construction of the top part of building frames works in Parcels J and K
Visitors to the Ullesthorpe open access land	View 5aiii- Visible cranes and the upper parts of building frame construction in Parcels J, K and G
Walkers on footpath W89 and in open access land south of Ullesthorpe	View 6ai and 6aiv– Visible cranes, and building construction and earthworks / wetland creation and planting works on Parcels J, K and L. Visible Cranes and the upper parts of building frames in parcels G H and I  6aii and 6aiii- Visible cranes, and building construction and partial view of earthworks / wetland creation and planting works on Parcels K and L
Walkers and horse riders on a permissive path south of Ullesthorpe	View 6b - from the permissive footpath, some vegetation removal, visible cranes, building construction operations and earthworks, in all Parcels and planting works
Specific view and visitors on permissive paths and on permissive open access land at Bittesby Scheduled Monument	View 7 - building construction, some earthworks and cranes for installation of new buildings and top spreading operations and planting works in Parcels G, I and E and D the meadow land
Residents and users of the Lutterworth Road on	View 8ai- Some visible construction operations



Landscape Receptor	Anticipated construction stage impacts
the eastern edge of Ullesthorpe	principally cranes and the upper parts of building frames in Parcel G and H
Night time - Community of Ullesthorpe	View 8ai - Temporary construction lighting in Parcel G
Sequential views taken from the Ullesthorpe Windmill	View 8aii and View 8aiii - Construction operations including, building construction and cranes for installation of new buildings in Parcels G, H and I.
Bridleway users between Chuckey Hall and the A5, near Willey	Views 9a and 9bi - some vegetation removal earthworks including top soil spreading , building construction, cranes for installation of new buildings and fit out operations in Parcels G, H, I, F and partial views of Parcel E building construction and earthworks  View 9bii- As above with visible cranes and building construction operations on Parcels J, K and L as well  View 9c – Visible cranes for installation of new buildings, some limited views of temporary construction operations including, building construction on Parcels G H and I and part of the A5 widening works
Walkers on a footpath, some residents and road users on the Ullesthorpe Road, to the south of Ashby Parva	View 10a and 10b - Temporary building construction activity, principally cranes and the partial views of the top of building frames on Parcels G and I
Workers within Magna Park	View 11 - Some vegetation removal, construction operations including construction deliveries, earthworks, road building and installation. Construction traffic
Road users on Mere Lane and users of adjacent permissive bridleway routes	View 12a - This part of Mere Lane would be maintained in its current use and there would be no changes to it until a new junction and access from the A5 are completed, then the road closed to vehicle traffic and converted to a footpath. View 12b - Some vegetation loss on both sides of the road, construction operations including cranes for installation of new buildings, construction activities associated with the building of a new roundabout junction across the line of the existing Mere Lane in the foreground. View 12c - Some vegetation loss associated with new junctions

Landscape Receptor	Anticipated construction stage impacts
	<p>and access roads. Temporary construction operations including construction of new access roads and junctions. Visible Construction traffic entering the site for the proposed building, new building construction and cranes in Parcels H and I View 12d - Temporary construction operations including earthworks, road infrastructure and building works, boundary fence installation, cranes used for installation of new buildings and associated construction traffic within the Site. View 12e – Some limited awareness of activities listed under view 12d.</p> <p>View 12f - Temporary construction operations including, some grass verge adjustments, the introduction of some kerbs on the rights side of the road, the creation of an improved access into the Mere Lane attenuation lake and creation of a visitor car park partly within an arable field alongside retained bridleway routes.</p>
<p>Road users on Coal Pit Lane and nearby walkers on footpaths to the north of Willey in the Rugby Green belt</p>	<p>View 13 and View 14a – the upper parts of building frame construction activity and cranes in all parcels except H. View 15 - Some vegetation loss, visible construction operations including earthworks, building and service yard construction in Parcel G, Building construction and cranes in Parcels J, E, H and I , cranes for installation of new buildings.</p>
<p>Walkers on footpaths to the south of Willey</p>	<p>View 14b - Some tree/vegetation loss predominantly focussed on the eastern side of the A5, construction and building operations, including cranes for installation of the new building and building frame construction in Parcels G, H and I.</p>
<p>Road users and residents on Main Road in Willey</p>	<p>View 14c &amp; View 14d-Residents - Building frame construction and cranes in Parcels E, Road users – Building Frame Construction and Cranes on parcels J and K</p>
<p>Night time - Road users and residents on Main Road in Willey</p>	<p>View 14c &amp; View 14d- construction security/ works lighting in Parcels E (residents) and J and K road users</p>
<p>Visitors to the Churchyard of St Leonard, Willey</p>	<p>View 14e- partial views of the construction of building</p>

Landscape Receptor	Anticipated construction stage impacts
	frames and cranes in parcels J and K
Road users, walkers alongside the A5	<p>View 16a - Some limited vegetation removal, construction operations including earthworks, building and service yard construction, cranes for installation of new building in Parcels J , K, I, H and G . View 16b - Some vegetation removal along the eastern edge of the carriageway opening up views, construction operations including earthworks, the creation of banks, building and service yard construction, access road and junction construction and visible cranes and the installation new buildings in Parcels G, H and I .</p> <p>View 16c - Some vegetation removal along the eastern edge of the A5 carriageway, construction operations associated with A5 junction construction and lighting installation, visible cranes and the installation new buildings View 16d- Parcel E, J and K Cranes and building frames construction, earthworks, internal road and water course crossing works, pitch construction and planting works View , 16ei- Parcel I and H building works, earthworks, cranes and planting works View16eii-Parcel K and J upper parts of building Frame construction and visible cranes</p>
Night Time- road users on the A5, the Community of Willey and residents at White House Farm along the A5	<p>View 16b – Road users - Some temporary lighting can be anticipated associated with construction works along the A5, over an 11 month period. Construction phase lighting from the A5 widening works unlikely to be directly perceptible by the community of Willey.</p> <p>View16d – temporary lighting at new A5 junction to north and Parcel E and J compound/security lighting</p>
A resident at Walton Lodge Farm and road users on the Lutterworth Road to the south	View 17 - Some vegetation removal along the eastern edge of the A5 carriageway, construction operations associated with A5 junction construction and lighting installation, visible cranes for installation of new buildings in Parcels G, H and I , and some associated visible building frame construction

Landscape Receptor	Anticipated construction stage impacts
<p><i>Zone 2 parts of the Application Site</i></p> <p>Road users on the Lutterworth Road</p>	View 18 -Visible cranes for installation of new building, building and lighting installation
Road users on the A5 and visitors to the Liberty Hotel	View 19 -Visible cranes for installation of new building, earthworks operation, hard and soft landscape works, building and lighting installation
A resident at Moorbarns and walkers and horse riders on bridleway X32	View 20 -Visible cranes for installation of new building, earthworks operations, hard and soft landscape works, building and lighting installation
Walkers and horse riders on Bridleway X32	View 21 -Visible cranes for installation of new building, building and lighting installation
Road users on the A4303 and adjacent workers in offices	View 22 -Visible cranes for installation of new building, building and lighting installation.

9.5.7 The next section assesses the implications of these identified impacts.

### Consideration of construction effects on identified landscape and visual receptors

9.5.8 Construction stage impact assessment summary tables for landscape and visual receptors are provided in **ES Volume 3, Technical Appendix F.5**.

9.5.9 Judgements regarding the potential landscape and visual effects are made below following the step process identified in the good practice guidance for landscape and visual assessment, GLVIA 3rd Edition and included in the **Volume 3, Technical Appendix F.2 Detailed LVIA Methodology**. The initial step is to consider each identified receptor in terms of its sensitivity, made up of judgements about the value of the landscape receptor and its susceptibility to the changes being proposed and then the next step is to consider the nature of the effects or magnitude of change. To reach conclusions about magnitude, judgements are made about the size and scale of effect, the geographical area that would be affected and the duration of the effect and its reversibility. The next step is to combine these judgements and to explain the level of effect envisaged and whether this is likely to be negative or positive. The final steps are to provide a summary statement, which includes a narrative explaining the predicted overall level of, first, landscape and then visual effects, which would result from the scheme proposals. The level of effect criteria that have been used to inform the professional

judgements made, are included in **ES Volume 3, Technical Appendix F.2. Section 9.7**, includes the final judgements made regarding the overall significance of the landscape and visual effects.

### **Consideration of construction effects on identified landscape receptors**

9.5.10 The construction stage effects on each of the identified Landscape receptors are considered first, below:

#### *Landscape Receptor 1 – Lutterworth Lowlands Landscape Character Area (LCA)*

(Including the part of the Site to the south east of Mere Lane in Zone 1 and the detailed application site to the south of Magna Park in Zone 2, each are considered separately below.

#### *Zone 1- south east of Mere Lane*

##### Sensitivity considerations

- 9.5.11 Value - This area is not recognised by a landscape designation and it is currently private land with no existing public access. A local site specific assessment of the strength of character, perceptual qualities and condition of the landscape and has led to the judgement that the value of this part of the Site is **low**. For the above reasons, this area has a weak landscape character and is in poor to moderate condition. There is a clear indication of some damage, deterioration and limited visual cohesion. The landscape has lost elements and patterns of potential heritage value, the area has low levels of tranquillity, by day and by night and there is noticeable impact arising from existing built development. There is some recently created habitat areas in the vicinity and some linkage between habitats provided by establishing tree belts, however, there is potential to improve this.
- 9.5.12 Susceptibility - The land is gently sloping and able to accommodate a road, without major earthworks. It is a landscape with high levels of enclosure afforded by establishing tree cover and existing buildings, leading to reduced potential for any intervisibility of moving traffic and lighting. The land and its immediate context have a patchwork character of varying land uses including roads and buildings. A new road would connect with this mixed land use context. The land has strong evidence of human activity and man-made structures in the vicinity. The heritage interest on this land is degraded; the areas of most valuable habitat in the form of wetlands, their margins and the majority of the establishing woodland can be avoided. Linkages between habitats can be largely maintained, however, there would be some disruption. The land has some areas of low scenic quality given the surrounding infrastructure and some other areas like the woodland along Mere Lane where the trees positively contribute to scenic quality of the Lane.
- 9.5.13 Overall, the susceptibility to change, of this part of the Site, within the Lutterworth Lowlands, to the incorporation of a new road link serving a new logistics building and operation in landscape terms is therefore considered to be **low**. The landscape characteristics are robust and are therefore less likely to be adversely effected.

##### Sensitivity

9.5.14 Following the above assessment it is considered that the landscape of the Site would be able to accommodate the new link road and the two additional bio discs and associated infrastructure proposed.

9.5.15 The area to the south east of Mere Lane would be able to accommodate change, of the type proposed, as it comprises some features and elements, identified in the baseline assessment, that are discordant resulting in an indistinct character, there are no recognised landscape designations applying to this area, the area no longer includes landscape features of value, through use, perception or historical or cultural associations and contains no features that could not be replaced. The area has low levels of scenic quality due to its existing mixed built context and has very limited visual sensitivity due to the significant woodland and built containment afforded to this area. The sensitivity of this part of the Lutterworth lowlands is therefore considered to be **low**, at a community level.

Magnitude Considerations–During construction

9.5.16 Size or scale of change - The principal effects arising, during construction, arise from some vegetation removal, some construction stage earthworks, road and landscape infrastructure installation and temporary disturbance caused by associated construction traffic.

9.5.17 Specific effects on existing vegetation are identified on the Grant Associates Tree/vegetation Removal Plan, included in **ES Volume 3 Technical Appendix A.1** and within the Hayden's Arboriculture Impact Report included in **Volume 3 Appendix F.6**, include:

- The removal of two parts of an area of some establishing oak, hazel, cherry, hawthorn, hazel and ash woodland (Hayden's Arboriculture Report Ref. A001), to make way for the construction of a new link road from Magna Park to the new Mere Lane junction and associated with a small part of the A5 widening works (**on Hayden's drawing 4902-D-4**);
- the removal of some hawthorn scrub (Category C2) (Hayden's Arboriculture Report Ref. A048) to make way for two new bio discs;
- the removal of a group of crack willow trees (Category B3), G027 (**on Hayden's drawing 4902-D-4**);
- a length of relatively recently planted native hedgerow located behind a wide grass verge on the edge of the A5 by Magna Park, would also need to be removed to accommodate the A5 widening works;
- an area of semi-improved grassland would need to be removed prior to earthworks for the road, commencing;
- tree protection measures as identified in the **Hayden's Arboriculture Report, on Drawings 4902-D-8 included in ES Volume 3, Technical Appendix F.6**, include protective fencing, installed prior to vegetation removal, to limit any potential impacts beyond the required working corridor and to conserve the remaining existing planting. This fencing would also set the limit to any earthworks operations.

9.5.18 The earthworks required for the new link road construction are localised and would tie back into the existing ground levels in close proximity given the generally shallow gradient of the



site. The earthworks, during construction, avoid extending into and affecting the edge, of the existing service farm lake and its marginal vegetation. Tree protection fencing would limit the width and extent of disturbance, from construction activities, on adjacent open areas.

- 9.5.19 The edges of the new road would be restored to grassland and a hedgerow and scattered trees incorporated behind a grass verge on the west side of the road during the landscape implementation works to make good and restore positive landscape features and ecological connectivity on the edge of the installed road corridor.
- 9.5.20 There would be some localised disturbance caused by construction traffic, which would be reduced on the wider area through the routing plan and by the phasing of the development. This approach, to be confirmed and approved within a CMP, would enable the utilisation of the new link from Magna Park, as the main delivery haul route, to the main part of the Site avoiding the need to approach from other directions and Mere Lane. This would cause a significant amount of temporary disturbance and activity, during construction, in the part of the Site, however, the road linking to the area from Magna Park is designed to take heavy goods vehicles and the landscape already has limited levels of tranquillity robust and is contained by conserved areas of woodland.
- 9.5.21 The proposals would constitute a relatively minor change to establishing vegetation features this part of the Lutterworth Lowlands and would result in some limited loss and alteration to existing landscape elements and the proposed works, during construction, would form a minor new feature in the Lutterworth Lowlands landscape. The size and scale of these changes is therefore considered to be **low** on the site, **low** on the immediate locality and **very low** on the Lutterworth Lowlands district LCA.
- 9.5.22 Geographical Influence - The effects described above in terms of geographical influence, are considered to be **very low to low**, as they would be limited to small parts of this part of the Site, a very localised area, would not be perceived from locations away from the Site and would affect less than 1% of the overall Lutterworth Lowlands district LCA.
- 9.5.23 Duration and reversibility - The perceptible vegetation loss, road building operations and disturbance caused by increased construction activity and traffic would be **long term** and **permanent** in terms of the woodland and grass land removal. Otherwise, the building works and construction activities would be **short term** and **reversible**, but new traffic would continue to use the constructed route. The duration and reversibility is considered to be **medium**.

Magnitude

- 9.5.24 During construction, there would be some slight loss of existing landscape elements including grassland and establishing woodland in a small part of the Lutterworth Lowlands. There would be the addition of some new temporary uncharacteristic elements including earthworks and construction operations to install the new road. These effects would be moderated to some degree by the implementation of a hedgerow, hedgerow trees, some woodland edge planting and species rich grass margins alongside the new road, to restore habitat and some connectivity. The changes, during construction, arising from the works and construction traffic would also not be very noticeable, beyond the immediate area of this part of the Site and from within Magna Park. The level of magnitude is therefore considered to be **low adverse** on the

site, **low to negligible** on the locality, **negligible** on the Lutterworth Lowlands district LCA and **low adverse to negligible**, overall, with embedded scheme mitigation measures.

Level of effect - During Construction

- 9.5.25 The level of effects, on the Lutterworth Lowlands, which has been identified as being of low sensitivity, arising from changes occurring, during construction, in the area to the south east of Mere Lane, are considered to be **minor adverse** on the site and **negligible** on the locality and on the Lutterworth Lowlands district LCA, with embedded scheme mitigation measures. The construction operations associated with the building of the new road link would relate to small parts of this part of the Site but would slightly detract. The mitigation strategy and tree protection measures would enable the sense of place and positive characteristics of this area to generally be conserved and retained. However, the new road construction works do not quite fit with the landscape pattern leading to some permanent localised woodland loss.

*Zone 2 - south of Magna Park*

Sensitivity considerations

- 9.5.26 Value - This area is not formally recognised by a landscape designation and it is currently private land with no existing public access. A local site specific assessment of the strength of character, perceptual qualities and condition of the landscape and has led to the judgement that the value of this part of the Site is **medium to low**. This area has a moderate to weak landscape character and is in moderate condition. There is a clear indication of some damage, deterioration and limited visual cohesion. The landscape has lost elements and patterns of potential heritage value, the area has low levels of tranquillity, by day and by night and there is noticeable impact arising from existing built development. There is some recently created habitat areas in the vicinity and some linkage between habitats provided by establishing tree belts, however, there is potential to improve this.
- 9.5.27 Susceptibility - A key issue in the case of the Zone 2 site, is the existing committed development of an HGV Park and associated gateway building and vehicle maintenance unit building, that already exists with the approved planning consent, for this site. Despite the following statements this has had a significant bearing on the final level of potential susceptibility, identified for this site. This has also influenced the impact assessment with impacts focussing principally on any additional or different effects that could arise from that which is due to be implemented. Otherwise, this part of the site is relatively gently sloping, benefits from some enclosure by some tall hedgerows and mature trees on the far western and southern field boundaries, the adjacent areas have a patchwork character of differing uses including, office, warehousing and highways, There is some but limited opportunity to overlook the site and the landscape setting is a man made one. The key habitat and landscape features are largely concentrated on the site periphery and could be robust and maintained if internal land uses were to change, The scenic qualities of land to the south and positive attributes of views across to Lutterworth, could be maintained and safeguarded. There is potential to effectively mitigate impacts on adjacent areas given the nature and scale of the land uses intended within and HGV park and rail freight terminal. Overall, therefore, the susceptibility of the site to the changes envisaged is considered to be **low**.

Sensitivity

9.5.28 This area to the south of Magna Park is considered to be able to accommodate change of the type proposed, as the surrounding context comprises some features and elements, identified in the baseline assessment, that are discordant, resulting in an indistinct character. There are also no recognised landscape designations applying to this area. The area includes some landscape features of value, through use, perception or historical or cultural associations, including boundary vegetation and the grassland areas that would be lost are not a feature that could not be replaced. The area has low levels of tranquillity and lower levels of scenic quality due to its exiting mixed built context and proximity to the A5 and A4043. The conclusions regarding sensitivity in this case have also been moderated by the fact that the site already has committed development in the form of an HGV Park. Therefore, this Site appears to be able to accommodate the proposed HGV park and rail freight shuttle terminal envisaged and is considered to be of **low**, overall, landscape sensitivity.

Magnitude Considerations—During construction

9.5.29 Size or scale of change - The principal effects arising, during construction, arise from some vegetation removal, some construction stage earthworks, building construction, drainage works and surfacing operations, together with landscape infrastructure installation and temporary disturbance caused by associated construction traffic.

9.5.30 Specific effects on existing vegetation include:

- the removal of three young Ash trees growing in the central hedgerow;
- the removal of 200m length of previously coppiced native hedgerow through the centre of the site. This and the hedgerow trees, would have had to be removed under the committed scheme on the Site, proposed for the HGV Park;
- Tree protection measures as identified on Parkwood's **Drawings 4403-4 to 6 included in ES Volume 3, Technical Appendix A.1**, and this includes protective fencing, installed prior to vegetation removal, to limit any potential impacts beyond the required working corridor and to conserve the remaining existing planting. This fencing would also set the limit to any earthworks operations which would have to be offset from existing ditches in any event.

9.5.31 The earthworks required for the Site are focussed inside the existing site boundaries on the two areas of semi improved grassland; the effects would be widespread within the site to create a more level area for parking and storage and platform for the construction of a gateway building. The site would be benched and includes a roll over bank on the southern edge of the site and around the eastern edge in order to achieve suitable gradients. The bank would rise 5m above the existing level at a point back from the southern boundary to provide up 2.5m of roll over as depicted on Parkwood's proposed site cross sections in the **ES Volume 3 Appendix, A.1**. The earthworks would also involve some excavation to form an attenuation area to the south east corner of the site. Tree protection and site fencing would limit the width and extent of disturbance, from construction activities, on adjacent areas.

9.5.32 Building operations would require temporary cranes and construction of the new building frame and cladding. New surfacing and planting works would be less noticeable operations.

- 9.5.33 There would be some localised disturbance caused by construction traffic, which would be reduced on the wider area through a the routing plan, in an approved CMP, however, the road access into the site is wide enough to accommodate large vehicles and plant and has direct connection to the A4043. The Site already has limited levels of tranquillity.
- 9.5.34 The proposals would not impact upon surrounding vegetation features which afford the site some containment. There would be limited hedge and tree loss and grassland of limited value would be impacted, although at a site level the change in land use would be extensive and high. Earthworks, surfacing and planting operations would form a minor feature in the locality but temporary building construction works and cranes would be more noticeable. At a district level the effects would be low. The size and scale of these changes is therefore considered to be **high adverse** on the site, **medium adverse** on the locality and **low adverse** on the Lutterworth Lowlands district LCA and **medium adverse**, overall, with embedded scheme mitigation measures.
- 9.5.35 Geographical Influence - The effects described above in terms of geographical influence, are considered to be high at the site level. The effects would be noticeable in localised area up to 1.5km away to the south, but would only affect a very small proportion of the Lutterworth Lowlands district character area (3% approx.). Therefore the geographic extent of the construction works is considered to be **medium to low**. The effect is judged to be lower than would have arisen from the committed HGV Park development where a second building a vehicle maintenance unit would have been constructed, in addition.
- 9.5.36 Duration and reversibility - The perceptible vegetation loss, building operations and disturbance caused by increased construction activity and traffic would be short term and temporary but there would be some limited permanent effects in terms of the hedge and grass land removal from the site. The construction stage works and operations, except for the building construction, are considered reversible. The effects in terms of duration and reversibility are therefore considered to be **low**, overall.

#### Magnitude

- 9.5.37 During construction, there would be some substantial change to the existing land cover and gently sloping topography of the site. The effects would be on semi improved grassland and one length of hedgerow, over a small part of the Lutterworth Lowlands. There would be the addition of some new temporary uncharacteristic elements including earthworks and construction operations to install the new roads, surfacing and a gateway building. The construction effects would be moderated to some degree by the implementation of tree planting, some new native woodland edge planting including some on a bank and a new wetland area to restore habitat and reinforce connectivity. The effects are also anticipated to be moderated by the protection and retention of boundary vegetation on the site. The changes, during construction, arising from the works and construction traffic would be noticeable, in a localised area up to 1.5km to the south of the Site. The level of magnitude is therefore considered to be **high adverse**, on the site, **medium adverse**, on the locality and **low adverse**, on the Lutterworth Lowlands district LCA and **medium adverse**, overall, with embedded scheme mitigation measures.

#### Level of effect - During Construction

9.5.38 The level of effects, on the Site within its local context within the Lutterworth Lowlands, which has been identified as being of low sensitivity, arising from changes occurring, during construction, in the area to the south of Magna Park are considered to be **moderate adverse** on the site, **minor adverse** on the locality and **negligible** on the Lutterworth Lowlands district LCA and **minor adverse to negligible**, overall, with embedded scheme mitigation measures. The construction operations associated with installing the gateway building, forming the new levels on the site and resurfacing and landscape works would relate to large parts of the site and would be expected to noticeably detract on a 1.5km locality. The mitigation strategy and tree protection measures would enable the positive boundary characteristics of the site to be conserved and some of the existing containment afforded to the site by these features to be retained. The construction works would be conspicuous with the local landscape but are considered to be slightly less noticeable, during construction, than works associated with the HGV Park, which is a committed development on the site.

*Landscape Receptor 2 – Upper Soar LCA*

(Part of the Site to the north-west of Mere Lane, considered under the headings of the two landscape types that make up the site below)

*Zone 1 - Landscape Type - Low lying clay vale farmland with gentle ridges*

Sensitivity considerations

- 9.5.39 Value - The part of the Site to the north-west of Mere Lane, in the low lying clay vales farmland landscape type, which falls within the Upper Soar LCA, is despite falling in the countryside, is also not covered by a formally recognised landscape designation, however, parts of the land have been subject to a Higher Level Stewardship Scheme (HLS) which has partly restored the declining farmland landscape pattern and has strengthened habitat connectivity after a preceding period of decline. Permissive bridleway access has also been provided to the Site, under the HLS scheme, enabling greater appreciation of this area of farmland. This access is however temporary and is published to come to an end in October 2017. A local site specific assessment of the strength of character, perceptual qualities and condition of the landscape and has led to the judgement that the value of this part of the Site is **medium, at a community level**.
- 9.5.40 The clay vale farmland and gentle ridges landscape type within Zone 1 of the application Site has been assessed as having a moderate strength of landscape character and as being in moderate condition. This part of the Site has some positive and distinctive landscape features and elements including the ridge to the east, Mere Lane Lagoon, watercourses, at the low points in the topography, some of the tree cover, some hedges, planted spinneys and the positive wooded character of Mere Lane. However, the landscape also includes evidence of some significant loss and deterioration to the local landscape pattern and in terms of historic integrity, including within and in the setting too, Bittesby House. There are sections of two public bridleways (W88, W86) and two public footpaths (W92 and W89) passing through this area. The ecological integrity, outside of the intensively managed arable land, is in a good condition, with localised features and some clusters of mature trees and more frequent areas of even aged plantations. The immediate local context of Mere Lane, the A5, the Manor Farm



wind turbine and Magna Park reduce the level of visual cohesion experienced from within and in views across this part of the local landscape. These features also lead to low levels of tranquillity particularly to the south east and west.

- 9.5.41 Susceptibility – The low lying clay vale farmland with gentle ridges landscape type, within Zone 1 of the application site, is in the countryside, but is not within a formally recognised or designated landscape. Parts of this area, to the north and east, do however, have a visual interrelationship with the Bittesby deserted village scheduled monument site, in the bottom of the main tributary valley.
- 9.5.42 The landform of arable fields alongside the A5 and Magna Park generally comprises relatively shallow gradients, at an elevation below that of the plateau on which the existing Magna Park is sited. This is advantageous for constructing new buildings and the accommodation of new roads, however, there would be a need for some widespread earthworks to create a level base for the new logistics buildings and surrounding yard areas and to at the same time, lower the existing land in places to provide some additional visual containment of any future buildings on the site from the north-west. Steeper sloping areas of this landscape type within the site to the north and in the centre of the site alongside the main tributary valley would need to be avoided as building locations, as they would be unsuitable. The visible slopes and local ridge to the east of the scheduled monument site are considered to be visually sensitive locations, for built development, with a higher susceptibility to change.
- 9.5.43 The large arable field pattern, without any evident ridge and furrow features, would enable earthworks to be achieved within the context of some conserved site boundary features and with the exception of the locality of Bittesby House, with a limited need for existing vegetation removal. This part of the Zone 1 application site benefits from moderate to high levels of enclosure, overall, afforded by Magna Park buildings, woodland belts along Mere Lane, surrounding local ridge lines and associated trees and hedges. The parts of the application site that adjoin the A5 and abut the northern boundary could be strengthened to enhance the existing containment and restore degraded field boundaries currently comprising gappy and interrupted hedgerows. To the east of this part of the site containment could be enhanced through the introduction of wet woodland on the edge of the tributary valley and by supplementary planting along the parish boundary where it follows a local ridge. The western side of the A5 includes dense hedgerows which effectively provide visual containment from the west, to the works proposed to widen the A5 and form new junctions. The local landscape already includes a context comprising a patchwork of different land uses, a major road corridor and former railway infrastructure including logistics development and employment uses in Bittesby House and Farm.
- 9.5.44 The Site has relatively low levels of visibility with the wider surrounding area, but some higher levels, at a localised level. This part of the Site is a man-made landscape with varied evidence of human activity and includes some large fields which have been subject to intensive arable land management practices and which are located within the local context of existing logistics warehouse and other employment premises and the busy A5 corridor. The loss of quite a large area of arable farmland would result in loss of one of the defining landscape characteristics of this landscape type, however, this land use is not rare at a district or country level and there are aspects of its condition that are either weak or mean that features are



generally replaceable and commonplace rather than rare at a local level. Within the Site and its immediate context there is some evidenced existing degradation of designated and undesignated heritage assets. In the adjacent Soar tributary landscape type is the Bittesby deserted village scheduled monument. Its setting has suffered some deterioration; however, there are still recognised sensitivities. There is potential for the scheme to respond positively to these by keeping land open, to conserve the remaining positive elements of the visual setting up to and including the local ridge to the east and by reversion to a meadow land use, to afford better protection to identified buried remains.

- 9.5.45 Bittesby House, Bittesby Farm and Cottages in the vicinity and mature trees including the former avenue approach drive would need to be removed. However, the sensitivity of the built features has been judged to be low (See **Chapter 11 Heritage and archaeology** for details) and the loss of some higher quality trees in the vicinity would need to be compensated for in the extensive areas of new tree planting that can be delivered elsewhere in this part of the site. A new logistics building in this location is considered less sensitive than further north toward the main tributary valley where it could be in the direct line of sight from residential properties in Willey. The lower land adjacent to the tributary valley in the southern part of this area provides an opportunity for integrating the internal access road and its associated activity within a wooded corridor, where it would be largely concealed from surrounding areas. Further north locating the internal road in position where it can be set down, through ground lowering along the edge of the A5 corridor would also assist sensitive and practical integration of the new road in that location. There are some areas of ditch and hedge line habitat and positive connectivity in and around this part of the Site which can be avoided in places but which would otherwise need to be re provided. . The scenic quality of this part of the Site is already moderated by the immediate context of notable large scale built components in the scene, some on higher ground and the A5.
- 9.5.46 The permissive bridleways that cross parts of the Site (which come to an end in October 2017), have been identified by some members of the local community, in consultation events, as being appreciated and valued for horse riding and for the circular routes they offer for informal recreation, as part of the wider existing network. These features and the existing sections of public rights of way would need to be sensitively accommodated, as far as possible.
- 9.5.47 Overall, the susceptibility of this part of the Site, within the Upper Soar LCA, to the incorporation of new road links and a new logistics buildings and operation, in landscape terms, is therefore considered to be **medium**. Some of the landscape characteristics are less vulnerable to change and others are more vulnerable to change from the type of logistics development envisaged. There would be adverse effects on what is currently a rural landscape type and its defining characteristics, given the nature and scale of development envisaged and this would be unavoidable. However, there is some potential for the more valuable components of the landscape to be sensitively responded to, incorporated and/or enhanced within the scheme. Where existing vegetation needs to be removed, there is significant scope for some re use and positive remediation, integrated within a strong new landscape infrastructure framework in the context of a new landscape type fully integrated with a logistics which is sited alongside and already is a key feature, itself, in the locality.

Sensitivity

- 9.5.48 The overall sensitivity of this part of the Site has therefore been judged to be **medium**, at a community level.
- 9.5.49 It is considered that the clay vale farmland and gentle ridges landscape type, in Zone 1, to the north-west of Mere Lane, would be able to partly accommodate the logistics development proposed, due to the nature of its existing character and local context. Some areas of this part of the site are more vulnerable and any changes to these areas would either need to be avoided, reduced or remediated.
- 9.5.50 This area includes some large to very large arable fields which are commonplace elements and are features creating a generally unremarkable character, particularly alongside the adjacent A5 corridor but which do contribute some sense of place. This part of the site is not designated for its landscape at any levels and has been judged in this assessment to be of medium value, at a community level. This landscape type on the site does contain some features of value through their use, perception or cultural and historic associations; however there is significant evidence of degradation throughout. Some features would not be able to be replaced but nor are they of such rarity or value that their loss is significant.

Magnitude considerations –During construction

- 9.5.51 Size or scale of change - The principal direct impacts arising, during construction, are anticipated to arise from vegetation removal, demolition works, some construction stage earthworks to regrade and spread site won top soil, building and yard installation (including: concrete mixing plant and cranes, some temporary lighting, site compounds), road construction, installation of attenuation/drainage/services farm, landscape infrastructure installation and the temporary disturbance caused by associated construction traffic. Indirect effects would arise from some limited construction activity in the adjacent Soar tributary landscape type, within the Zone 1 application Site.
- 9.5.52 The effects anticipated on existing vegetation are identified within the Hayden’s arboriculture report included in **Volume 3 Appendix F.6**, and include:
- the removal of a section of hedgerow that follows the line of an historic boundary and appears to be of a significant age along part of the north-west boundary of Parcel G (**Hayden’s Arboriculture Report, Ref. H016, on drawing 4902-D-3 in ES Volume 3, Appendix F.6**);
  - the removal of what appears to be younger hedgerows, planted on the former historic field boundary lines (Including part of Refs, H023 H017, H004, H033, H030, H005, H006, H010 and H046);
  - the removal of some more recently planted hedgerow or hedgerows that do not follow historic hedge lines including: Ref. H018, H019, H025, H048, H002, H007, H021, H020, H018 and H032);
  - also, the removal of the following trees/tree groups (Identified in detail in the **Volume 3, Technical Appendix F.6 Hayden’s Arboriculture Report and shown on their Drawings 4902-D-1 to 4902-D-4**):

- in the vicinity of Bittesby House the removal of 2No category A trees (Hayden's Ref. T034 and T031) and 21No Category B trees (Hayden's Ref. T036, T037, T010, T038, T039, T040, T042, T043, T045, T046, T052, T054, T056, T071, T072, T075, T064, T062, T063, T059 and T060) and 3No category B tree groups ( Hayden's Ref. G004, G009 and G0010) which need to be removed to enable the construction of Parcel I (See **Hayden's Arboriculture Report and drawing 4902-D-4, in ES Volume 3, Appendix F.6**);
- alongside the A5 to make way for a new junction and widening of the A5, the removal of 2No Category B trees (Hayden's ref. T226 and T147) and a 1No category B tree group and 1No area (Hayden's ref. G029 and A045). These trees are shown on (See **Hayden's Arboriculture Report and drawings 4902-D-1 and 4902-D-4, in ES Volume 3, Appendix F.6**);
- also, 5No Category B trees and 1No area, in hedgerows, including Hayden's Ref. T127 (on Hayden's drawing 4902-D-1) Ref. T083, T084, A015 (on Hayden's drawing 4902-D-4) and trees Ref. T082, T085 (on Hayden's drawing 4403-D-3);
- in addition a total of 88No further individual category C trees, 19No areas, 3No groups would need to be removed from this landscape type;
- the following seven areas of trees, included within the category C, trees, areas and groups identified above are locations where removed trees ,have been identified as suitable for transplanting: A004, A016, A017, A018, A025, A026 and A039 (on Hayden's drawings 4902-D-2, 4902-D-3 and 4902-D-4);
- tree protection measures as identified in the **Hayden's Arboriculture report included in ES Volume 3, Appendix F.6, on drawings 4902-D-5, 4902-D-6 and 4902-D-8** and include protective fencing, installed prior to vegetation removal, to limit any potential impacts beyond the required working areas to conserve the remaining existing planting. This fencing would also set the limit to any earthworks operations.

9.5.53 The vegetation removal works would cause some noticeable change to some of the key characteristics in this landscape and would give rise to a conspicuous loss of these existing landscape features. Other vegetation in the area would be effectively protected during the works.

9.5.54 Demolition and site clearance works are proposed in this part of the site and would result in the removal of Bittesby House and its out buildings, immediate surrounding and buildings within Bittesby Farm. Bittesby Cottages and Lodge and Emmanuel Cottages would also be removed to make way for the construction of the A5 road widening works and buildings and associated infrastructure within Parcels I and F. The demolition works would result in the permanent alteration and loss of the only existing built features within this part of the Site. The removal Bittesby House would constitute a noticeable change to an attribute of the current landscape

9.5.55 The effects in respect of earthworks include some extensive cut and fill operations in this part of the Site and some spreading of site won top soil, associated with creating building terraces the new link road, and attenuation and new landscape infrastructure features. Proposed cut

operations would affect all the existing gently undulating landform within all the Parcels that fall within this part of the Zone 1 Site (That is all those, except Parcels C and D) In Parcel D, works would be restricted to some site won top soil spreading to raise levels but only in locations to be agreed with the County Archaeologist and formalised in an approved CMP. In Parcel C, which falls outside this landscape type and in the Soar tributary floodplains and terrace landscape type, works would be very localised and also would be limited to filling to raise some levels, to accommodate attenuation ponds, outside the floodplain and seasonally wet areas, on parts of the gentle sloping terrace area to the north west. The amount of cut and fill would vary markedly across the site but would involve some changes in ground level of approximately 5 - 6m. This has been utilised to reduce the impacts of buildings. Excavations into the more steeply sloping areas, of this part of the site, have been avoided in the scheme design and through Parcel distribution. The Grant Associates indicative cross sections included within **ES Volume 3, Appendix A.1** illustrate the anticipated strategy, in terms of earthworks and new rollover banks, associated with the scheme. The soil resource would be protected through the incorporation of good practice soil management methods, (as identified under scheme mitigation measures) to be enforced through an approved project Construction Management Plan (CMP). Consideration has been given to the distribution of new landscape infrastructure banks and top soil deposition areas to enable excavated soil to be deposited without a large carriage distance and soil can be taken to locations that avoid the need for later double handling. The earthworks operations would cause some major changes to the landform and would cause some permanent alteration to the undulating topography but have been focussed on areas where gradients are generally shallower, a key local ridge would be maintained and the main effects are targeted on large open arable fields with a degraded or more recently reintroduced field pattern.

- 9.5.56 Buildings and yard installation would include the use of concrete mixing plant and tower cranes, some temporary security lighting and site compounds. Groundworks and building construction operations would typically take 12 months with the fit out taking a further 12 months before opening. The main effects during construction arising from the construction of building parcels, after vegetation removal and demolition, principally include the visible construction operations, this would require at the largest scale, the use of tower cranes which in combination with the building frames would be conspicuous in the landscape. Other activities and features are relatively small scale features in the landscape in comparison but would give rise to noticeable effects. The presence of tower cranes and building frame construction activities would cause temporary conspicuous alteration to the existing landscape and the cranes would be a prominent feature in this landscape and the locality.
- 9.5.57 Proposed road installation works include the construction of an internal access road which would link Argosy Way to the south east with a proposed second access on the A5 to the north west. A new roundabout junction is provided on Mere Lane and a new link road would be installed to connect this with a new junction on the A5. There are also proposed widening works to a section of the A5 running from alongside the edge of Magna Park up to apposition close to the former line of the Midland Counties railway. New landscape infrastructure would be implemented along each of these routes within this part of the application Site and some associated banks would make use of Site won top soil from building parcels in the vicinity for re use. The works associated with new roads have been focussed in locations where effects

on existing vegetation have either been able to be limited or where in the case of the Mere Lane tree belts, the vegetation is young enough for transplanting and reuse. The proposed link road from the new A5 junction to the Mere Lane Roundabout would cross over an existing ditch, requiring a culvert. The culverts in the scheme, where they occur have been designed to maintain flows along these ditches and include mammal ledges to maintain the connectivity of wildlife corridors. The proposed road installation works would cause a noticeable change to some woodland areas and site boundary features and in places would form a new feature in the landscape.

- 9.5.58 The construction stage works would also include the installation of attenuation features/drainage and a services farm, together with services infrastructure. Some of the attenuation measures would be concealed in the form of permeable paving and oversized pipes but others in the form of swales and SUDS attenuation ponds are proposed in some of the arable fields of the site alongside the new internal access roads. Some of the existing ditches in this part of the site would be diverted, at this stage, and realigned before re-entering existing watercourses. A new services farm would be installed in Parcel M2 in the north of the Site, where there is currently an arable field. The installation and construction of these features would constitute a noticeable change to the land cover and land use resulting in permanent alteration to existing landscape features.
- 9.5.59 Landscape infrastructure installation would include significant areas of new woodland spinney, hedgerow, and tree planting and wet woodland planting would be incorporated and implemented during the construction phase. The extent of the new planting is indicated in **ES Volume 3, Technical Appendix A.1**, on Grant Associates Landscape masterplan, cross sections and in the scheme Design and Access Statement which includes the landscape design strategy and the principles for this area of the site. These landscape implementation works make good and remedy the effects of vegetation removal (increasing vegetation cover overall) and would add new positive landscape features and restore ecological connectivity where it had been temporarily disrupted. The extent of waterbodies and wetland habitat would be increased and water quality and run off managed through the installed SUDS systems.. The new planting belts, site levels and the banks, shown on the Grant Associates scheme cross sections, included in **ES Volume 3 Appendix A.1**, would provide a significant degree of containment to service yards around new buildings, at the opening year, this features would become more significant as planting establishes in the medium term. The proposed landscape works in this part of the site would conserve some key landscape features, would remediate the effects of vegetation loss and would enhance the boundaries of the A5, repair the landscape pattern on areas of retained farmland and the meadowland to the north and east. The incorporation of woodland spinneys on higher ground and shelter belts, hedges alongside retained verges along the edge of the A5 would assist integration through the incorporation of some distinctive Upper Soar and High Cross Plateau landscape elements. These features over time would make a positive contribution within the context of a new logistic park landscape type.
- 9.5.60 There would be some localised disturbance caused by construction traffic, which would be reduced through the routing plan and by the phasing of the development. The approach to be formalised within an approved CMP would enable the utilisation of the new link from



Magna Park, as the main delivery haul route, to the main part of the Site avoiding the need to approach from other directions and Mere Lane. These measures are considered to improve the potential construction traffic effects on the surrounding area, alongside the use of an internal main road corridor that would be generally be set down in the wider scene and could service each Parcel in a manner that would reduce the impacts of construction traffic on the locality. Access to laydown area and construction compounds off this main route is still likely to lead to activity that causes a noticeable temporary change and creates a conspicuous alteration to the landscape in the low lying clay vales farmland landscape type, within the Zone 1 Site, on the locality and within the Upper Soar district LCA.

- 9.5.61 Some existing public rights of way (PROW's) including bridleways W86 and W88 and footpaths W89, W92 and some permissive routes in the south east and west of this area, that would be impacted by earthworks operations would need to be diverted (some permanently), to their new positions and this would be coordinated with detailed phasing arrangements in the context of a construction management plan (to be approved by the LPA, to avoid live construction sites. This would cause some short term disruption or long term realignment to the routes and some adverse impacts on users of the routes, during the construction stage, however the continuity of routes would be maintained and permanent routes either restored realigned or enhanced by the end of the construction stage.
- 9.5.62 Indirect effects would also arise from some limited construction activity in the adjacent Soar tributary landscape type, within the Zone 1 application Site including some road construction, the construction of the main tributary road crossing and through the creation of attenuation features to the north of the site. These are considered to constitute noticeable changes affecting some of the key characteristics and would result in some permanent alteration to existing landscape features in the adjacent landscape type which would be experienced from this part of the Zone 1 Site, in the construction stage.
- 9.5.63 These proposals and activities during the construction stage would constitute a major change to some of the attributes of this part of the Upper Soar landscape character area resulting in the some large scale loss and permanent alteration of some landscape elements and the activities would temporarily introduce contrasting features in the landscape. The loss of landscape features would be moderated by the transplanting of some of the removed tree stock and compensated for by the installation of a more extensive coverage of new landscape infrastructure for the site, albeit, young planting, at this stage. The construction activity associated with the demolition of some buildings, the new buildings (including cranes) with the proposed works along the A5 and Mere Lane to construct roads would introduce conspicuous new activity and incongruous features into the landscape. The size and scale of these changes, during construction, are therefore considered to be a **high adverse** effect on this part of the Zone 1 site, itself, with **high to medium adverse** indirect effects on the surrounding locality and would have a **medium adverse** effect at a Upper Soar district LCA level, given the relatively large extent of the proposed works, despite embedded scheme mitigation measures.
- 9.5.64 Geographical Influence - The effects described above in terms of geographical influence, are considered to be **high** on this part of the site, **high to medium** on the locality **and medium** on the Upper Soar district LCA , as they would effect a large number of fields, with activities that



are likely to be partially intervisible in the surrounding area up to 2km away and would affect an area approx. an area directly or indirectly of approximately 20% of the Upper Soar district landscape character area.

- 9.5.65 Duration and reversibility - The perceptible earthworks, road construction, demolition works and building operations for each Parcel would in themselves be short term (typically a two year cycle), with the use of cranes and building frame installation of a much shorter duration. These activities which are anticipated to be some of the most noticeable in the wider locality would be temporary and reversible in the case of the use of cranes. However, construction for the whole extension would be carried out incrementally over a 10 to 13 year period and would cause changes to the landscape of the site which cannot be easily reversed. The vegetation loss, where it does not relate to features that have some historic integrity (where effects would be permanent), is considered to be generally short term and reversible in this instance, given the installation of remediation planting and the transplanting of some trees and woodland, as part of the landscape infrastructure implementation, which would replace the vegetation cover albeit in different locations) and increase it in the mid-term. The changes overall, in terms of duration and reversibility, are considered to be **medium**.

Magnitude

- 9.5.66 During construction, there would be large scale changes to this landscape type and the addition of some new but uncharacteristic conspicuous features and elements on this part of the Zone 1 Site itself. There would be some noticeable change and some new but uncharacteristic conspicuous features and elements introduced that would adversely affect up to a 2km area in the locality and their would also be noticeable change and partial loss of existing distinctive character directly and indirectly affecting up to 20% of the Upper Soar district LCA. The level of magnitude, during construction, is therefore considered to be **high adverse** on this part of the site, **high to medium adverse** on up to a 2km locality and **medium adverse** on the Upper Soar district LCA and **high to medium** adverse overall, with embedded scheme mitigation measures.

Level of effect - During construction on the clay vale farmland and local ridges landscape type

- 9.5.67 The construction effects arising within the clay vale farmland and local ridges landscape type within Zone 1 of the Site, during construction, at the site level, are considered to be at variance with the character of a local landscape, there would be some adverse impacts on some existing characteristic features and elements and some damage to the sense of place across a moderate sized area effecting a landscape type of medium sensitivity. However, the effects on this part of the Upper Soar, during the construction phase, are moderated by the mitigation strategy to avoid and reduce effects on the majority of the existing positive landscape features and the implementation of the landscape infrastructure which would restore and maintain characteristic elements that complement the landscape character. With these measures implemented, the construction stage works, whilst initially detracting and being at variance with the landscape, in places, would by the end of this stage begin to create a new landscape type that is starting to integrate with the surrounding intact local character, in this part of the Upper Soar. The effects would be indirect on up to 2km locality, where levels of intervisibility due to intervening ridges, built form and vegetation would moderate the level of

effects so that the magnitude of the changes experienced are limited to some parts of the local area. At the Upper Soar district LCA level the same moderating influences in terms of magnitude of the effects experienced would apply despite the potential direct and indirect influence extending over approximately 20% of the district LCA. The level of effects, on the clay vale farmland and local ridges landscape type within Zone 1 of the Site, within the Upper Soar LCA, which has been identified as being of medium sensitivity, during construction, are considered to be **moderate to major adverse** on the site, **moderate adverse** on the locality and **moderate adverse** on the Upper Soar district LCA and moderate adverse, overall, with embedded scheme mitigation measures.

*Zone 1- Landscape Type - Soar tributary flat floodplains and terrace*

Sensitivity considerations

- 9.5.68 Value - The part of the Site to the north-west of Mere Lane, in the Soar tributary flat flood plains and terrace landscape type, which falls within the Upper Soar LCA, despite falling within the countryside, is not covered by a formally recognised landscape designation, however, from a heritage perspective, this part of the Site does contain the deserted medieval village of Bittesby, scheduled monument site. Parts of the land have also been subject to a Higher Level Stewardship Scheme (HLS) and Forestry Commission planting initiatives which have partly restored the damaging effects of the former Midland Counties railway line, now disused, which truncated the valley in 1838. The HLS and woodland planting in the main tributary valley have strengthened habitat connectivity after a preceding period of decline and have begun to disguise the railway embankment and associated structures in the landscape. Permissive bridleway access has also been provided to this part of the Site, under the HLS scheme, enabling greater appreciation of this area of the tributary valley. This access, including that to the scheduled monument site, is however temporary and is published to come to an end in October 2017. A local site specific assessment of the strength of character, perceptual qualities and condition of the Soar tributary landscape type within the site and has led to the judgement that the value of this part of the Site is **medium, at a community level**.
- 9.5.69 The Soar tributaries and flat floodplain terrace landscape type, within Zone 1 of the application Site, has been assessed as having a moderate strength of landscape character and as being in moderate condition. This part of the Site has some positive and distinctive landscape features and elements including the surviving earthworks of the part of the Bittesby scheduled monument, intact sections of the meandering main watercourse, trees and shrubs along and in the vicinity of the watercourse and areas of grassland habitat, including areas of meadow, The woodland areas also contribute positively but are of even age and require management. However, the landscape also includes evidence of some significant loss and deterioration to the local landscape pattern and in terms of historic integrity, including within what was originally the full extent of the village and in places irreversibly changing the setting of, the Bittesby village scheduled monument. There are short sections of two public bridleways (W88, W86) and a section of one public footpaths (W89) passing through the Soar tributary flat floodplain and terrace landscape type, within the Zone 1 Site, from where this area can be otherwise accessed and appreciated. To the north of the railway the tributary terrace and

floodplain has a degraded field pattern and has been subject to some wetland enhancement and some recent land cover changes, with some areas of former arable land converted to grassland and some wet woodland planted. The ecological integrity, outside of the intensively managed arable land, in this area is in a good condition, with localised features along and around the watercourses and the railway embankment, some mature trees exist to the far north of the area but even aged plantations are more frequent. The local context of, the A5, the Manor Farm wind turbine and Magna Park reduce the level of visual cohesion experienced from within and in views across this part of the local landscape. These features also lead to lower levels of tranquillity particularly to the west. Higher levels of tranquillity and a more intact area of Tributary valley exist off site to the north.

- 9.5.70 Susceptibility – The Soar tributary flat floodplains and terrace landscape type within the site includes land that is low lying and is likely to be seasonally wet. The tributaries contribute key drainage, water supply and water quality functions, in terms of ecosystem services, at a regional level. There is also a sensitive archaeological site, afforded national level protection, in part of the valley bottom. The tributary valleys are a relatively enclosed area with limited intervisibility with the surrounding locality. Pasture land cover is more prevalent in this landscape type within the site and makes an important contribution to the safeguarding historic earthworks and remains as does the management of water flow through the scheduled monument Site. The visual setting to the scheduled monument site is already substantially modified and includes more recent built features and some presence of traffic on the A5. However, the land sloping up to the local ridge, to the north and east from the tributary valley does still contribute positively in a visual sense, in the limited views out that exist, from the remaining deserted village site. Large parts of the area, whilst being in a rural context have been heavily influenced by man-made structures and in places by intensive arable farming practices. There are some more remote and tranquil areas further to the north, away from the A5, particularly off site as the tributary valley extends to Ullesthorpe. There are also some quite large areas of recently created habitat for wildlife in in this part of the site and parts of the area contribute some scenic/amenity value at a local level.
- 9.5.71 The permissive bridleways that cross parts of the Site (which come to an end in October 2017), have been identified by some members of the local community, in consultation events, as being appreciated and valued for horse riding and for the circular routes they offer for informal recreation, as part of the wider existing network. These features and the existing sections of public rights of way would need to be sensitively accommodated, as far as possible.
- 9.5.72 Overall the susceptibility of this area to a logistics park extension is considered to be **high to medium**, as this part of the site includes some features that are nationally designated which are sensitive and the area has some key water management functions that contribute to the wider region, which are more vulnerable to anticipated changes direct and/or indirect in the adjacent landscape type on the application site. However, there are also parts of the area that are less vulnerable to change, given the amount of alteration and deterioration that is already present and given that some of these features, are replaceable and more resilient to anticipated interventions.

#### Sensitivity

- 9.5.73 The overall sensitivity of this part of the Site has been judged to be **medium**, at a community level.
- 9.5.74 It is considered that the Soar tributary and flat floodplains and terraces landscape type, in Zone 1, to the north-west of Mere Lane, would be able to partly accommodate the logistics development proposed, due to the nature of its existing character and local context. Some areas of this part of the site are more vulnerable and any changes to these areas would either need to be avoided, reduced or remediated.
- 9.5.75 This area includes some large to very large arable fields, extending into it, to the north, which are commonplace elements and are features creating a generally unremarkable character, where field boundaries have in the past been removed but which do contribute some sense of place. This part of the site positively contributes to the wider regional water catchment. This part of the site is not designated for its landscape at any levels and has been judged in this assessment to be of medium value, at a community level. The area does however; contain a nationally designated scheduled monument site which is of high value due to its cultural and historic associations. This landscape type on the site also contains some other features of value through their use, perception or cultural and historic associations, including the remains of the Midland Counties railway which has also substantially degraded the character of this part of the Soar valley but is now a feature of local cultural significance, in its own right; The area whilst showing some signs of significant past degradation has been recently restored through a HLS scheme and had some woodland planting, wetland enhancements and other land use changes which are of benefit to wildlife, the scheduled monument site and in terms of visual amenity. Some features would not be able to be replaced but nor are they of such rarity or value that their loss would be significant.

Magnitude considerations –During construction

- 9.5.76 Size or scale of change - The principal effects arising, during construction, are some vegetation removal, some demolition, some construction stage earthworks, construction of some road infrastructure, a road crossing over the main Soar tributary valley, construction of some small business units in Parcel F, landscape infrastructure/attenuation feature installation and temporary disturbance caused by associated construction traffic. Indirect effects would arise from some the construction activity in the adjacent clay vale farmland and local ridges landscape type, within the Zone 1 application Site.
- 9.5.77 Specific effects on existing vegetation are identified within the Hayden's arboriculture report and on drawings included in **Volume 3 Appendix F.6**, include:
- the removal of the ends of three short sections hedgerow, two of which follow the line of an historic boundary but have been recently planted under the HLS (See **Hayden's Arboricultural Report and drawings 4902-D-1 and 4902-D-4, Hedge Ref. H033, H030 and H021, in ES Volume 3, Appendix F.6**);
  - the removal of one area of relatively recently planted wet woodland (See **Hayden's Arboricultural Report and drawing 4902-D-1, Area Ref. A034, in ES Volume 3, Appendix F.6**);

- the removal of one category C tree which needs to be removed to allow the construction of the main tributary road crossing point (See **Hayden's Arboricultural Report and drawing 4902-D-2, Tree Ref. T115, in ES Volume 3, Appendix F.6**).
- tree protection measures as identified in the **Hayden's Arboriculture report included in ES Volume 3, Appendix F.6, on drawings 4902-D-5, 4902-D-6 and 4902-D-8**, include protective fencing, installed prior to vegetation removal, to limit any potential impacts beyond the required working areas to conserve the remaining existing planting. This fencing would also set the limit to any earthworks operations.

- 9.5.78 The effects on vegetation, during construction, constitute a slight loss of existing landscape features, given the limited extent and the recently planted nature of the vegetation being removed. Other vegetation in the area would be effectively protected during the works.
- 9.5.79 The effects arising from demolition, in this part of the Site include the removal of some farm buildings at Bittesby Farm. The demolition works would result in the permanent alteration and loss of the small area of existing built features, with little architectural merit, within this part of the Site.
- 9.5.80 The effects in respect of earthworks would include some cut and fill operations. There would be some fill focussed on a gently sloping terrace area outside the floodplain to the north of this landscape type, within the site, as part of works to create wetland attenuation areas. Otherwise cut and fill operations would be limited to those on the edge of this landscape type associated with construction of an internal road and some excavation of attenuation areas, set away from any archaeology features. The Grant Associates drawings and cross sections included within **ES Volume 3, Appendix A.1** illustrate the proposed changes in terms of earthworks associated with the scheme. The soil resource would be protected through the incorporation of good practice soil management methods to be enforced through an approved project Construction Management Plan (CMP). Consideration has been given to the distribution of new landscape infrastructure to enable excavated top soil to be deposited without a large carriage distance and soil can be taken to locations that avoid the need for later double handling. There would be some noticeable change to part of the existing shallow sloping, tributary terrace and existing meadow and some arable land cover and alteration to the landform. Some uncharacteristic new banks would be introduced as part of filling operations to the north of the area but the attenuation areas whilst being new features would add to existing positive wetland features in the tributary valley.
- 9.5.81 During construction, a new internal access road would be built on the fringe the southern branch of the Soar tributary and would extend locally, either side of an installed road crossing over the main Soar tributary valley. A road crossing over the existing main tributary would also be constructed. The introduction of this road and associated infrastructure planting, with some culverts underneath in places linking proposed attenuation areas to maintain water flow would introduce a new but uncharacteristic features on the edge of the Soar tributary and construction traffic using this route in the shorter term would introduce some new and uncharacteristic conspicuous activity within parts of this landscape type, within the Site.
- 9.5.82 Some new business starter units would be constructed in Parcel F, just inside this landscape type at the southern end opposite Bittesby Farm. These works would introduce some



uncharacteristic features in to a small, localised part of the tributary valley and existing positive features including an existing ditch and riverine vegetation would be conserved and protected alongside and any works kept away from the floodplain. An existing crossing over the existing watercourse would be able to be utilised to obtain access to this Parcel, avoiding the need for any further crossing at this point.

- 9.5.83 Attenuation features including some seasonally wet waterbodies would be installed in this landscape type north of the disused railway to the east of Parcels J and K and south of the railway between the proposed internal access road and the edge of the floodplain to the Soar tributary in that location. These features would positively add to the wetland habitat in the Soar tributary landscape type and would positively contribute indirectly to safeguarding the Bittesby scheduled monument and the wider catchment by maintaining the same water flow rates through this area and water quality during construction and in operation.
- 9.5.84 Significant areas of new wet woodland, wetland shrub, species rich grassland and tree planting would be incorporated and implemented during the construction phase. The extent of the proposed new planting is indicated in **ES Volume 3, Technical Appendix A.1**, on Grant Associates landscape master plan, on scheme cross sections and within the scheme Design and Access Statement, where the design principles are set out. These landscape implementation works make good and remedy the effects of vegetation removal (increasing vegetation cover overall) and would add new positive landscape features and restore ecological connectivity where it had been temporarily disrupted. The extent of waterbodies and wetland habitat would be increased and water quality and run off managed through the installed SUDS system. The new planting belts, site levels and the banks, shown on the Grant Associates scheme cross sections, included in **ES Volume 3 Appendix A.1**, would provide a some initial containment, increasing by the mid-term, as planting matures, to adjacent roads, building edges, the ends of yards alongside building Parcels J, K, and I, at day of opening.
- 9.5.85 There would be some localised disturbance caused by construction traffic accessing this landscape type, within the Site, which would be reduced through the routing plan and by the phasing of the development. The approach to be identified in the scheme CMP enables the utilisation of the new link from Magna Park, as the main delivery haul route, to the main part of the Site avoiding the need to approach from other directions and Mere Lane. Access to laydown areas and construction compounds off this main route is still likely to lead to activity that causes a noticeable temporary change and creates a conspicuous alteration to the landscape alongside this landscape type, within the Zone 1 Site, but these effects would only be perceived in the more immediate locality.
- 9.5.86 Some existing Public Rights of Way (PROW's) including bridleways W86 and W88 and footpaths W89 and some permissive routes in this area that would be impacted by earthworks operations and the road crossing of the main tributary would need to be diverted (some permanently), to their new positions and this would be coordinated with detailed phasing arrangements in the context of a construction management plan (to be approved by the LPA, to avoid live construction sites. This would cause some short term disruption or long term realignment to the routes and some adverse impacts on users of the routes, during the construction stage, however, the continuity of routes would be maintained and permanent routes either restored realigned or enhanced by the end of the construction stage.



- 9.5.87 Indirect effects would arise from some the construction activity in the adjacent clay vale farmland and local ridges landscape type, within the Zone 1 application Site. Cranes and some building construction would be perceived from parts of the Bittesby Scheduled Monument Site and these and earthworks and other construction activities proposed in the Low lying clay vales and local ridges landscape type would also be highly perceptible from within other parts of the Soar tributary landscape type, in parts of the land, to the north and west. Large scale indirect effects, through the introduction of new uncharacteristic temporary construction activity and features are anticipated.
- 9.5.88 The size and scale of the changes considered above, during construction, on the Soar tributary landscape type, with the Zone 1 Site are considered to for the most part constitute a noticeable change to the key characteristics of this part of the Site itself with some conspicuous loss of some features and alterations in places. Also some of the construction operations would introduce new features and activity into the landscape of this part of the Site. However, larger scale effects on the Site itself would be experienced through the indirect effects of the construction activity on the adjoining undulating clay vales and local ridges landscape type which would include some more intensive activity and conspicuous and uncharacteristic large scale features including tower cranes. In the locality the construction works proposed on the Soar tributary landscape type would only be experienced as a noticeable changes in some places and minor change in others, given the intervening undulating topography and more hidden nature of parts of this landscape type within the application site. At a district level, the scale of the experienced construction effects whilst likely to influence approximately up to 10% of the Upper Soar district LCA, only minor changes would be perceptible. The size and scale of these changes, during construction, are therefore considered to be a **medium to high adverse** effect on this part of the Zone 1 site, itself, with **medium to low adverse** indirect effects on the surrounding locality and would have a **low adverse** effect on the Upper Soar district LCA and **medium adverse**, overall, with embedded scheme mitigation measures.
- 9.5.89 Geographical Influence - The effects described above in terms of geographical influence, are considered to be **low** overall, as they would influence localised areas within this part of the site, up to 0.5km of the locality and up to approximately 10% of the Upper Soar district LCA.
- 9.5.90 Duration and reversibility - The perceptible vegetation loss, earthworks, some road construction including a crossing of the main Soar tributary, some demolition works to some farm buildings, the construction of attenuation features and landscape infrastructure implementation operations would be short term construction operations and would cause changes to the landscape that include some which would be permanent and others that could be reversed. The vegetation loss, is considered to be short term and reversible in this instance, given the installation of remediation planting, which would replace, the young planting areas being removed with replacement and more extensive vegetation cover albeit in a slightly different location and leading to an increased presence in the medium term. These changes in terms of duration and reversibility are considered to be **medium overall**.

Magnitude

9.5.91 These proposals and activities during the construction stage would constitute a noticeable change to some of the attributes of the Soar tributary landscape type. There would be some partial loss of built and landscape features and elements and there would be some short term uncharacteristic conspicuous construction activities and operations that would be perceptible from within this area and at a larger scale, perceptible, indirectly from the adjacent undulating clay vales and local ridges landscape type. These effects would largely be experienced at the Site level, with only slight and more partial indirect changes arising from the construction activities within this landscape type being experienced in the locality, at up to 0.5km distance. This is due to the valley bottom position of this landscape type and the nature of the operations taking place there, which would not include cranes or building construction operations. The construction stage activities would also give rise to the addition of some new and uncharacteristic activities and operations in the landscape type but would these would directly and indirectly affect only approximately 10% of the area the Upper Soar district LCA.. The level of magnitude, during construction is therefore considered to be **medium to high adverse** on this part of the site, **medium to low adverse** on up to a 0.5km locality and **low adverse** on approximately 10% of the Upper Soar district LCA and **medium adverse** overall, with embedded scheme mitigation measures.

Level of effect - During construction on the Soar tributary floodplains and terrace landscape type

9.5.92 Some of the proposed construction operations would be in conflict with the character of this landscape type and would have an adverse impact on some characteristic land cover and landform features, The construction activities both on this part of the Site and indirectly those proposed within the adjacent character type would in the short term diminish the local distinctiveness of this part of the Site. However, at a Site level the scale of the changes relate to relatively small parts/areas, away from the more sensitive key characteristics. The effects on this landscape type, during the construction phase, are also moderated by the mitigation strategy to avoid and reduce effects on the majority of the existing positive landscape features and the implementation of the landscape infrastructure which would restore and maintain the most valued features. Whilst the construction effects would be experienced within a 0.5km locality the nature of the intervening topography and features means that indirect effects of the construction activity would be limited, to smaller parts of this Soar tributary landscape type. At the Upper Soar district LCA level the short term construction effects would impact upon up to 10% of the district LCA directly and indirectly, however, indirect effects would be limited given the position, context and nature of effects. The effect experienced in the locality The level of effects, on the Soar tributary floodplains and terrace landscape type within Zone 1 of the application Site, within the Upper Soar LCA, which has been identified as being of medium sensitivity, during construction, are considered to be **moderate adverse** on the site, **moderate adverse to minor**, on the locality and **minor adverse** on the Upper Soar district LCA and **moderate to minor adverse**, overall, with embedded scheme mitigation measures.

*Landscape Receptor 3 – High Cross Plateau LCA– Open plateau Landscape Type (West of the A5, considered for the Zone 1 part of the application site to the north of Magna Park, first and then the Zone 2 detailed application site to the south of Magna Park)*

*Zone 1- to the west of the A5, north of Magna Park*

Sensitivity considerations

- 9.5.93 Value - The strength of character and condition of the High Cross Plateau to the west of the A5 falls generally within the moderate to good category in all respects with the exception of low levels of tranquillity alongside the A5 and Coal Pit Lane. The landscape value of the High Cross Plateau Landscape to the west of the A5, alongside Zone 1 Site, is therefore considered to be **medium to high** value at a community level, as although the landscape has some localised areas of deterioration, it also includes a sense of 'emptiness' in places away from the main roads that is unusual. There is the church of St Leonard and other locally important heritage assets including a surviving pattern of farmsteads set within a traditional rural context. There is a moderate sense of visual unity in the landscape and generally, albeit with some exceptions closer to the A5, low levels of impact from built development.
- 9.5.94 The Borough of Rugby landscape sensitivity and condition study, April 2006 identifies the High Cross Plateau area south of Willey Fields Farm as being an area with 'the retention of a coherent, historic field pattern, in the otherwise intensively farmed landscape' which 'results in a moderate fragility rating'. The north of Willey Fields Farm the area is given a 'low' fragility level. In terms of visibility the study identifies two distinct levels applying to the area as well. An area of 'moderate' visibility on the plateau area to the north of Willey and 'low' visibility for the area around Willey and to the south of Willey Fields Farm. This more detailed assessment concurs with the findings of the broader published assessment.
- 9.5.95 Susceptibility - The High Cross Plateau west of the A5 in the vicinity of the Site is a landscape that includes some hidden areas some visible slopes and some elevated areas of plateau with wider visibility. It is a landscape with a mixture of some more open and other more enclosed areas created by the local topography and hedgerow network and tree pattern. It is a landscape with varying land uses but very little built development. It is a mixed agricultural landscape with a more homogenous pattern of pasture along the lower parts of the valley. Parts of the landscape have some visibility with land to the east but in some of these views the A5 detracts and intervenes and in others there are existing areas of built development, in the adjacent character area, in the view. The High Cross Plateau landscape is a rural man-made landscape with evidence of human activity but uses are dominated by mixed and pastoral farmland. The landscape has some strong remaining cultural pattern and other areas on the plateau that are more degraded. There are some areas of grassland habitat and strong network of hedges for wildlife however there is some interruption to habitat created by the A5.
- 9.5.96 Overall, the susceptibility of this landscape to the indirect effects from a logistics development, including a new building and associated infrastructure, has been judged to be **medium**, as some of the key characteristics including an apparent perceived 'emptiness' and low presence of settlement in the landscape pattern, retention of some long views, including along valleys and the sensitive design of roads to maintain distinctive character, are likely to be vulnerable to change. Many of the key characteristics would also not be vulnerable to indirect effects.

Sensitivity

- 9.5.97 The findings of the Borough of Rugby Landscape Sensitivity and Condition Study, April 2006, reach the conclusion that the overall sensitivity of the High Cross Plateau – Open Plateau is

'moderate'. This assessment provides further evidence for this conclusion and also considers the area to the west of the A5 to be of **medium** sensitivity to indirect effects, at community level.

9.5.98 Following the above assessment it is considered that the landscape could due to the nature of the existing character partly accommodate indirect change of the type proposed.

9.5.99 As despite the area including some features of quality that make a positive contribution in terms of character and sense of place, these would not be directly affected by the type and location of the development proposed.

9.5.100 The landscape is not designated; however, much of the land is valued at a local level for its emptiness and countryside, which are qualities that are recognised in the Warwickshire Landscape Guidelines. The area is within the Rugby Borough Green belt and part of the area alongside the disused railway is identified as part of the Borough's Green Infrastructure Network.

9.5.101 The landscape contains some features of value through use perception and cultural association, including a strong landscape pattern and there are some heritage features of recognised value including the listed church of St Leonard and Cottage Nurseries but these would not be affected by the type and location of the development proposed.

9.5.102 The key published sensitivities of this landscape which are of relevance, in terms of indirect effects, include:

Rugby Borough Council Sensitivity and Condition Study, April 2006

- *'Wide views and a strong impression of emptiness and space' reinforced by 'an absence of roads and settlements with sparsely populated hamlets and farmsteads prevailing'.*
- *'The eye is drawn to distant skylines rather than foreground views'.*

The Warwickshire Landscape Guidelines, Nov 1993

- The sensitivity of the High Cross Plateau, to urban expansion in the countryside, has been identified, alongside the need to protect the character and special features of country roads. In north east Warwickshire it identifies these features as roads that are typically bounded by hedgerows set back behind wide verges.

Magnitude considerations –During construction

9.5.103 Size or Scale of change - The principal indirect effects arising, during construction, would include the introduction of some cranes and building activity in some views out of the High Cross Plateau, to the east. The strong impression of emptiness and space evident north of Willey Fields Farm, away from the A5, would not be compromised. However, the cranes would constitute a temporary conspicuous impact on some perceived wide views. The construction stage works would also cause some noticeable temporary activity and structures where distant skylines can be perceived from the northern edge of Willey. There would also be some perceived urban construction features in some limited views where there is not currently an existing built backdrop to the Site. The perceived changes would be moderated to some extent, by other existing activity, in the foreground of some views, including A5 traffic and

some other existing built development, already present, in the foreground or on the skyline, in the vicinity of the works. There would be some perceptible tree removal along the stretch of the A5 to be widened, however, this would only affect a small part of the road and these characteristics are only perceived within a limited part of the High Cross Plateau, over an existing tall hedgerow, which would be conserved and protected. The proposed temporary construction works and activity would constitute a noticeable change to some of the key characteristics of the High Cross Open Plateau LCA and would result in a conspicuous alteration in the scene and would temporarily introduce new features into the landscape. The size and scale of the perceived changes, is therefore considered to be **medium**

9.5.104 Geographical Influence - The effects described above in terms of geographical influence, are considered to be **medium**, as they would indirectly affect a 1-1.5km locality and approximately 5%, of the High Cross Plateau LCA. The effects on the area of the High Cross Plateau to the west of the A5 alongside the Zone 1 Site, would be limited to localised areas and would indirectly affect a relatively small proportion of the overall High Cross Plateau landscape character area and in the case of cranes and building works would be perceived in the middle distance, and in a few places in closer proximity where the quality of the view is moderated by the A5 and its activity being strongly evident in the foreground.

9.5.105 Duration and reversibility - The perceptible building operations and cranes would be short term and the cranes would be a reversible element. However, their use and building frame construction would occur incrementally over the, up to thirteen year, build programme and the building frames, which would be clad at the end of the build programme, would become permanent elements. The tree removal is short term and reversible in this instance given proposed boundary treatments and the implementation of remediation planting along the eastern edge of the A5, would replace the tree cover and increase it in the medium term. Overall, these changes in terms of duration and reversibility are considered to be **medium**

Magnitude

9.5.106 During construction, there would be slight indirect, perceptible loss of some road side trees and some noticeable damage to the High Cross Plateau identified characteristics resulting from the temporary addition of new but uncharacteristic elements, some of which would be conspicuous but would be visible incrementally, principally arising from the use of tower cranes and the associated construction of some new building frames. The level of magnitude, during construction, is therefore considered to be **medium adverse** on the High Cross Plateau district LCA, with embedded scheme mitigation measures.

Level of effect - During construction

9.5.107 The level of indirect effects, on the High Cross Plateau, to the west of the A5 alongside Zone 1 of the Site, which has been identified as being of medium sensitivity, during construction, are considered to be **moderate adverse**, with embedded scheme mitigation measures. The introduced cranes and building works would not quite fit and would be at slight variance with the perceived distant skyline in some limited wider views, which is partly moderated by there already being other built elements and some foreground activity along the A5 in the majority of places where these activities would be experienced. These features and the loss of some mature trees along the eastern edge of the A5 during widening works would temporarily and



indirectly detract from the local distinctiveness/positive qualities of the scene to the north and south of Willey. However, the impacts of the A5 widening and junction, road construction works, and lower level construction works beyond would be largely shielded, in summer and winter, by the existing boundary hedgerow, to the western edge of the road which would be avoided except for a very short section, which would be re provided, on land in the ownership of Gazeley UK Limited, alongside the proposed widening works. Only some parts of the scene or extent of the scene would be affected by these indirect changes.

*Zone 2 – to the west of the A5, south of Magna Park*

Sensitivity considerations

- 9.5.108 Value - The strength of character and condition of the High Cross Plateau to the west of the A5 falls generally within the moderate to good category in all respects with the exception of low levels of tranquillity alongside the A5 and Coal Pit Lane. In the area to the west of the A5, south of Magna Park alongside, the Zone 2 Site the landscape value of the High Cross Plateau Landscape is considered to be **medium** value at a community level, as although the landscape has some localised areas of deterioration, it also includes a sense of 'emptiness' in places away from the main roads that is unusual. This part of the High Cross Plateau is set away from heritage assets and areas of settlement but a surviving pattern of farmsteads set within a traditional rural context is partly evident. There is a moderate sense of visual unity in the landscape however in this location, the area most effected is close to the A5 and Lutterworth Road and there are higher levels of impact from existing modern built development.
- 9.5.109 The Borough of Rugby landscape sensitivity and condition study, April 2006 identifies the High Cross Plateau area south of Willey Fields Farm as being an area with 'the retention of a coherent, historic field pattern, in the otherwise intensively farmed landscape' which 'results in a moderate fragility rating'. The north of Willey Fields Farm the area is given a 'low' fragility level. In terms of visibility the study identifies two distinct levels applying to the area as well. An area of 'moderate' visibility on the plateau area to the north of Willey and 'low' visibility for the area around Willey and to the south of Willey Fields Farm. The more detailed assessment concurs with the findings of the broader published assessment
- 9.5.110 Susceptibility - The High Cross Plateau west of the A5 in the vicinity of the Site is a landscape that includes some hidden areas some visible slopes and some elevated areas of plateau with wider visibility. It is a landscape with a mixture of some more open and other more enclosed areas created by the local topography and hedgerow network and tree pattern. It is a landscape with varying land uses but very little built development. It is a mixed agricultural landscape. Parts of the landscape have some visibility with land to the east but in the local area effected by the Zone 2 Site, in some of these views the A5 detracts and intervenes and in others there are existing areas of existing modern built development, in the adjacent character area of the Lutterworth Lowlands, in the view. There are also some longer views across the A5 toward Lutterworth, where there are distant skylines. The High Cross Plateau landscape is a rural man-made landscape with evidence of human activity but uses are dominated by mixed farmland. The landscape has some strong remaining cultural pattern and other areas



on the plateau that are more degraded. There are some areas of grassland habitat and strong network of hedges for wildlife however there is some interruption to habitat created by the A5.

9.5.111 Overall, the susceptibility of this landscape to the indirect effects from a logistics development, including a new building and associated infrastructure, has been judged to be **medium**, as some of the key characteristics including retention of some long views, could be vulnerable to change. Many of the key characteristics in this part of the High Cross Plateau would not be vulnerable to indirect effects.

#### Sensitivity

9.5.112 The findings of the Borough of Rugby Landscape Sensitivity and Condition Study, April 2006, reach the conclusion that the overall sensitivity of the High Cross Plateau – Open Plateau is 'moderate'. This assessment provides further evidence for this conclusion and also considers the area to the west of the A5 to be of **medium** sensitivity to indirect effects, at community level.

9.5.113 Following the above assessment it is considered that the landscape could due to the nature of the existing character partly accommodate indirect change of the type proposed.

9.5.114 As despite the area including some features of quality that make a positive contribution in terms of character and sense of place, these would not be directly affected by the type and location of the development proposed in the Zone 2 Site.

9.5.115 The landscape is not designated; however, much of the land is valued at a local level for its emptiness and countryside, which are qualities that are recognised in the Warwickshire Landscape Guidelines. The area of the High Cross Plateau LCA is not within the Green belt, nor included, as part of the Borough's Green Infrastructure Network.

9.5.116 The wider landscape contains some features of value through use perception and cultural association, including a strong landscape pattern and there are some heritage features of recognised value including the listed church of St Leonard and Cottage Nurseries but these would not be affected by the type and location of the development proposed to the south of Magna Park..

9.5.117 The key published sensitivities of this landscape which are of relevance, in terms of indirect effects, include:

Rugby Borough Council Sensitivity and Condition Study, April 2006

- *'The eye is drawn to distant skylines rather than foreground views'.*

The Warwickshire Landscape Guidelines, Nov 1993

- The sensitivity of the High Cross Plateau, to urban expansion in the countryside, has been identified.

#### Magnitude considerations –During construction

9.5.118 Size or Scale of change - The principal indirect effects arising, during construction, would include the introduction of some cranes and building activity in some views out of the High Cross Plateau, to the east. These proposals and activities during the construction stage would constitute a minor change to 'wide views and a strong impression of emptiness and

space' and would cause a small amount of change to the skyline. There would also be very limited observed urban expansion given the existing built backdrop to the Site. The perceived changes would also be moderated by other existing activity, in the foreground of any views, including A5 traffic and some other built development, already present, on the skyline, in the vicinity of the works. There would be some perceptible hedgerow removal, in winter, along the, however, this would only affect a small part of the scene and from within a very limited part of the High Cross Plateau, and would be filtered through an tall tree line on the edge of the intervening A5, which is unaffected by the scheme. Longer views across towards the distant skyline past the site to the south and toward Lutterworth would not be impacted. These indirect changes would form a minor new feature or alteration perceived from within the landscape of the High Cross Plateau, to the west of the A5, during the construction stage. The size and scale of the perceived changes, is therefore considered to be **low**.

9.5.119 Geographical Influence - The effects described above in terms of geographical influence, are considered to be **low**, as they would be limited to a 1.5km locality and would only indirectly affect approximately 3% of the High Cross Plateau district LCA. In the case of cranes and building works, which potentially would be the most visible components, in winter, these would be perceived over in the middle distance.

9.5.120 Duration and reversibility - The perceptible building operations and cranes would be short term and the cranes would be a reversible element. The hedge removal is short term and reversible in this instance given proposed woodland an shrub mix boundary treatment remediation planting along the western edge of the Zone 2 Site , which would replace the vegetation and increase it in the medium term. These changes in terms of duration and reversibility are considered to be **low**.

#### Magnitude

9.5.121 During construction, there would be slight indirect, perceptible construction activity, in winter and the temporary addition of new but uncharacteristic elements, principally in the form of a crane used in the installation of the proposed gateway building. The level of magnitude, during construction, is therefore considered to be **low adverse** on the High Cross Plateau district LCA, with embedded scheme mitigation measures.

#### Level of effect - During construction

9.5.122 The level of indirect effects, on the High Cross Plateau, to the west of the A5 alongside the Zone 2 Site, south of Magna Park, which has been identified as being of medium sensitivity, during construction, are considered to be **minor adverse**, with embedded scheme mitigation measures. The introduced cranes, building and construction works, in winter, would not quite fit and would be at slight variance with the existing perceived scene, in some limited wider views, which are moderated by there already being other traffic movements in the foreground along the A5. These features and the loss of some hedgerow vegetation along the eastern edge of the site, beyond boundary trees along the A5, would temporarily detract but only in small parts of the overall scene and only small scale indirect changes would be evident.

## Consideration of construction effects on Identified visual receptor groups

9.5.123 The assessment of visual effects covers 'the effects of change and development on views available to people and their visual amenity'. ' This section assesses 'how the surroundings of individuals or groups of people may be specifically affected by changes in the content and nature of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements'(GLVIA 3, P98). This section first considers day time and then separately, night time effects.

### *Day time visual effects – Construction stage*

9.5.124 During construction, the following effects are predicted on identified visual receptors:

### *Day time and Night time visual effects-During Construction*

9.5.125 The assessment of day time and night time visual effects, is summarised in Volume 3 Appendix F.5, and should be read in conjunction with **ES Volume 3, Appendix F.1, Representative Photo viewpoint Figures 9.6a to 9.6zzr.**

9.5.126 The assessment of the level of visual effect, anticipated for each identified visual receptor/visual receptor group, first includes consideration of the sensitivity of the visual receptor, before then considering the magnitude of effects anticipated, **during operation.** Judgements reached on these two aspects have then been combined to reach a conclusion on the level of visual effect, in each instance. A narrative is provided in the **Residual effects section 9.7** below to explain the final conclusions reached.

9.5.127 Where intermediate ratings are given, e.g. "Medium-Low", this indicates a level that is both less than Medium and more than Low.

9.5.128 The visual topic, sensitivity, magnitude and level of effect, example criteria and scales, which have been employed for this project, are provided in the **Tables in ES Volume 3, Appendix F.2. These should be used to interpret the conclusions reached on the summary table.**

## 9.6 Operational Effects and Mitigation

9.6.1 The assessment of operational stage effects on identified landscape and visual receptors groups has been prepared with reference to the operation phase description of development included in **ES Volume 2, Chapter 2.** The development has been assessed on the basis that scheme landscape and visual mitigation has been included in the scheme design (as part of an iterative design process). Therefore, operation phase mitigation will be considered integral to the 'scheme design' in the process of determining the magnitude of effects, below.

9.6.2 Measures that are evident in the scheme parameter plans and lighting strategy in the case of Zone 1 of the application site are given primary consideration when assessing the anticipated nature of effects, as full details are not available in the context of an outline application. Full details are assessed in the case of the detailed application for the Zone 2 part of the application site.

## Proposed Mitigation

9.6.3 The key mitigation measures incorporated into the scheme design for the operation stage include:

### *Landscape Receptor 1 - Lutterworth Lowlands LCA*

*(This includes part of the Zone 1 Site to the south east of Mere Lane and addressed separately below, the Zone 2 site to the south of Magna Park)*

#### *Zone 1- to the south east of Mere Lane*

Reduction measures include:

- the use of best practice measures to control obtrusive light on new internal roadways.

Remedial measures include:

- Repair and re seeding of road margins with diverse native grass land mixes and the planting of a hedge on one side of the road with some additional scattered native roadside trees, to restore hedgerow cover in an area where it had in the past been removed;
- Some new planting along existing woodland edges alongside Mere Lane junction to diversify the age structure and increase climax/edge species.
- Also, see **Ecology and Nature Conservation, ES Volume 2, Chapter 12**, for further detail of nature conservation measures in this area.
- Use of the part of the former section of Mere Lane as a footpath for pedestrians linked with a splitter island crossing at the new A5 junction. This will provide connections to and from footpaths around Willey.

#### *Zone 2 – to the south of Magna Park*

Avoidance measures include:

- avoidance of a planning application for the site that significantly amends parameters that have already received planning consent in the committed HGV park scheme for the same site.

Reduction measures include:

- reduction of the visual effects of the new gatehouse building, by limiting its height significantly below that of background tree cover;
- removal of a vehicle maintenance building which would have exceeded the height of proposed containers, from the proposed scheme;
- change of use from a parking area to a vehicle training area, enabling some lighting in the upper north west corner of the site, to be dimmed outside normal day time hours;
- use of a demountable and moveable forklift type lifting equipment for transferring containers to avoid the need for permanent and fixed height lifting cranes, reducing the permanence of any visual impact ;
- limiting the height that containers can be stored at to two shipping containers high (5.9m);

- a location for container storage areas, on the lower parts of the site where they benefit from most coverage from a proposed planted earth bank. The top of the planted bank is up to 7m higher than the ground level of the hedge on the site boundary and is on average 2.5m above the level of the containers. The width and height of the belt by year 10, even with slightly depressed growth rates, at an anticipated height between 6 to 8m, is anticipated to deliver year round visual containment to all parking areas and to have largely concealed the gatehouse building on higher ground within the site by that time. The gatehouse building is coloured dark blue to assist it being recessive and blending into its mature tree background when viewed from the south west. **(See Vol 3 Technical Appendix F.1 Figure 9.6zzzzzs and 9.6zzzzzt);**
- current best practice measures are incorporated for road, parking area and building lighting design to minimize potential light spill, glare and sky glow to unobtrusive levels.

Remedial measures include:

- establishment of a new 10m wide native woodland matrix mix and a native and ornamental shrub mix belt to define the western boundary of the application site;
- establishment of a 25m wide native woodland belt, with some larger trees ( including some evergreen species) on a bank set above and behind the existing tall hedge and hedgerow trees that are retained to strengthen the southern boundary and deliver visual containment of site activities;
- establishment of a 10-15m wide native woodland matrix belt at the top/north of the site to limit views to vehicles entering the facility in views from the south and south west;
- rows of trees on the boundary of the north east corner of the site to filter views to the main access road from adjacent offices and from the direction of the A4043 toward the new office building

Off-set measures include:

- The creation of a wetland area for attenuation and nature conservation benefit in the eastern corner, in the lower part of the site to compensate for the loss of some existing internal site ditches;

*Within the Landscape receptor 2 - Upper Soar LCA*

*(within Zone 1 to the north-west of Mere Lane and comprising two landscape types each considered separately below)*

*Zone 1 - Landscape Type - Low lying clay vale farmland with gentle ridges*

Avoidance measures:

- During operation, the new roundabout junction connecting into the existing Mere Lane and its surroundings will continue to have a retained existing wooded context and new planting on and around the junction will reinforce this. The former stretch of Mere Lane to the south will be converted to a bridleway route retaining its positive characteristics and removing traffic from this stretch of the former Lane;

- As far as possible the following assets have been conserved and safeguarded within this part of the site:
  - the local network of spinneys and copses on ridges together with hedgerows and hedgerow trees, or new planting to compensate for any vegetation losses;
  - the generally lower levels of lighting north and north east of the application site away from Magna Park and the A5;
  - the Mere Lane Lagoon and the attenuation pond and filter beds at Magna Park and enclosing wooded vegetation which also have a significant potential amenity value for recreation;
  - the attractive wooded appearance and containment afforded to the edges of Mere Lane experienced by passing road users;
  - Some of the network of main ditches (or diverted routes as necessary) following depressions in the landform and the associated hedge lines which provide some enclosure and connectivity and some of which appear to be on historic alignments;
  - the conservation of hedgerows wherever possible and where not, balancing their loss with new planting of hedgerows where they have become gappy or have been lost from elsewhere including on Mere Lane and along the edge of the A5;
  - the wide grassland field margins;
  - the retention of the significant hedgerow trees wherever possible;
  - the containment afforded to the landscape by local planted ridges, in particular that along the parish boundary and alongside the A5 to the north;
  - the more tranquil parts of the application site to the east within the context of a Bittesby Country Park (including extended areas of wetland) and a meadow area ((Areas C and D).

Reduction measures include:

- in operation, culverts are required in some places, to accommodate roads and a parking area in Parcel G. These have been designed to maintain flows and minimise any disruption to existing water courses (**See ES Volume 2, Chapter 8 Hydrology** for further details);
- tapered white coloured/ light cladding applied to the upper parts of buildings to assist the blending of the upper parts of buildings with the sky is a key measure and principle to be carried into the detailed design detailed design. This measure would need to be utilised to reduce effects of buildings on the scheduled monuments sites at Bittesby and Ullesthorpe to a minimum;
- a buffer zones has been provided, in the form of the proposed meadow land to the north and east of the Bittesby scheduled monument site to reduce continuing damage from arable farming operations, on buried archaeology , to absorb access pressure in the future and take it off the monument site itself and to maintain an open farmland setting on the steeper and visible slope leading up to the local ridge, in this area;



- at the far north of the site to maintain direct longer open views across an undeveloped meadow area from the rear of property on the eastern side of the White House, to reduce effects on their visual amenity;
- filtering views with new strategic planting belts to supplement the effects of existing tree cover as it continues mature from Bittesby Scheduled Monument and the edges of Ullesthorpe, Claybrooke Parva and Willey, towards the new buildings;
- building maximum height restrictions have been included on the parameter plan to reduce potential impacts;
- the main internal link road has been located on the lower side of a valley and set down between proposed buildings and the A5 to minimize its impact and that of associated lighting;
- restrictions on the locations of yards, HGV circulation routes, parking areas and office positions has been defined on parameter plans to reduce impacts;
- the use of rollover banks and spinney planting to provide visual enclosure of the service yards, car park area and associated activity;
- buildings in the Magna Park hub area (Parcel E) at the floor areas defined can be sensitively sited in low lying areas, to maintain areas of open land to reduce potential impacts;
- the restriction of new Mere Lane and A5 road lighting to new junctions and immediate junction approaches;
- the use of best practice measures to control obtrusive light on buildings, in yards, at new junctions and along internal roadways;
- The office components of the building are located purposefully away façades that would face adjoining and darker and more tranquil areas or where they are likely to be seen in direct line of site from residential areas;
- The siting of the new buildings principally, in an area where tranquillity (caused by the existing environment), is already compromised, by the proximity of an existing busy road infrastructure;
- The siting of the new building in a location where it does not compromise the open rural settings and separation afforded around existing villages and by designated separation areas;
- Current best practice measures would be used for road, yard and building lighting design to minimize potential light spill, glare and sky glow to levels to be approved by the Harborough District Council (See **Lighting Strategy Report in ES Volume 3 Technical Appendix F.7 for further details**);
- the siting of yards, HGV circulation routes, offices and parking areas sensitively in response to surrounding residential and existing amenity areas;
- restriction on the maximum height of the new buildings to below that of existing buildings on the edge of Magna Park;
- to take opportunities to improve the existing day and night time views of Magna Park whilst integrating the extension;

- the creation of building terraces in a manner that enables the buildings to be set down to reduce their visual impact on areas in the locality, outside the application site.

Remedial measures include:

- remediation for loss of some scattered roadside trees and for the resulting increased visual effects of the new road link to the A5 and the A5 widening, on road users, in operation, through the incorporation of new wide grass verges, a roadside hedgerow and roadside trees combined with a shallow bank between the roads and field edges, in a manner that reinforces local character;
- the establishment of tree belts and a wooded character alongside the new section of Mere Lane road link;
- Infrastructure planting belts have been strategically positioned at appropriate widths within the scheme parameter plan, to provide visual containment of yards and associated ground level activity and traffic movements;
- reinforcement of some elevated parts of the undulating landscape with ridge top spinneys to conceal views of the application site from many locations and angles of view;
- to the north west of the Zone 1 application site, the faster growth rates of wet woodland habitat in new wetland areas would be utilised to provide containment from the east;
- realigned ditches and spring feed links to maintain connectivity and through flow (See **ES Chapter 8 Hydrology, for further details**);
- Also, see **Ecology and Nature Conservation, ES Volume 2, Chapter 12**, for further detail of nature conservation measures in this area;
- repair degraded and lost field boundaries in the proposed meadow area and off site within an arable field to the north, which coincide with the local ridge.

Off-set measures include:

- New permanent bridle way and footpath connections are proposed, to compensate for any removed permissive routes and diversions can be accommodated for existing rights of way within the context of the scheme layout.. The access plan in the scheme DAS identifies the indicative locations of the proposed permanent access network across the site. The network is also proposed to be extended and improved linkages made between the site and Magna Wood, along Mere Lane, together with new connectivity for occupiers in the existing Magna Park and conserved and enhanced permanent circular routes for existing footpath and bridleway users. Access opportunities are also extended so some visitors the proposed Bittesby Country Park could arrive by car.

#### *Zone 1 - Landscape Type - Soar tributary flat floodplains and terrace*

Avoidance measures include:

- As far as possible the following assets have been conserved and safeguarded within this part of the site:
  - the local network of spinneys and copses on ridges together with hedgerows and hedgerow trees, or new planting to compensate for any vegetation losses;

- the generally lower levels of lighting north and north east of the application site away from Magna Park and the A5;
- the waterbodies and main tributaries and associated vegetation linking connecting with the River Soar
- the intact historic landscape elements of the Bittesby Scheduled monument
- the relatively recently introduced landscape enhancements including wildflower grass field margins and tree planting and wetland enhancements delivered through the HLS
- the more tranquil parts of the application site to the east are sited within the context of a Bittesby Country Park (including extended areas of wetland) and a meadow area.
- lighting is generally avoided in the tributary valley area, the area defined for Bittesby Country Park (area C) and the meadow land (area D):

Reduction measures include:

- where possible the following assets have been conserved and safeguarded within this part of the site:
- restrictions on the locations of yards, HGV circulation routes, parking areas and office positions has been defined on parameter plans to reduce indirect impacts;
- the road crossing over the main tributary valley would be designed to maintain habitat connectivity and water flows and be kept to the minimum land take. The crossing has been aligned to reduce the road deck height to a minimum but keeping to lower levels either side of the crossing point and avoiding an alignment directly up a steep slope;
- infrastructure planting belts have been strategically positioned within the scheme parameter plan to provide visual containment of yards and associated ground level activity and traffic movements in parcels J and K, from within the tributary valley park area and from realigned public right of way in the valley bottom;
- the faster growth rates of wet woodland habitat in new wetland areas would be utilised to provide containment from the east and establish a positive setting around new wetland areas in the shorter term;
- the tapered white coloured light cladding applied to the upper parts of buildings assisting blending of the upper parts of buildings with the sky from within the tributary valley parts of the site;
- where lighting is required on the road corridor on the edge or parts of the tributary valley best practice measures to control obtrusive light will be employed on buildings, in yards, at new junctions and along these internal roadways (See **Lighting Strategy Report in ES Volume 3 Technical Appendix F.7 for further details**).

Remedial measures include:

- the management of water runoff and water quality whilst also incorporating additional habitat;
- provision of attractive public bridle way and footpath routes for cyclists and pedestrians, including some that would be locally realigned;

- the retention of the permissive routes, where possible, and where not the provision of alternative(s);
- strengthening of the green infrastructure linkages on the eastern side of the A5 to improve linkage opposite the designated Green Infrastructure network corridor, following the former railway line in Rugby Borough, between and around Parcels I and E, to extend this network into Harborough District and into the tributary valley.

Off-set measures include:

- planting of new areas of wet woodland and transplanting of existing vegetation where it has to be removed to compensate to the disturbance of some recent planting in the tributary valley in the north of this area;
- the introduction of some new productive informal, food growing and formal recreation land use, in place of arable alongside the tributary valley landscape type to address some local recreation or community shortfalls and to increase the multi-functional green infrastructure alongside the valley. These uses have been integrated into locations where they do not intrude or compromise heritage assets or settings.

#### *Landscape Receptor 3 - The High Cross LCA*

*(Including parts to the west of the A5 alongside Zone 1 to the north of Magna Park and considered separately below, parts to the west of the A5 alongside Zone 2, south of Magna Park)*

#### *Zone 1 – to the west of the A5 to the north of Magna Park*

Avoidance measures include:

- Avoidance of new road lighting on the A5 closer to Willey, away from the new roundabout junctions and approaches.

Reduction measures:

- reduction of the visual effects of the new building, in operation, by the incorporation of the following measures: limiting the height of the building, above ordnance datum, by setting building back from the edge of the A5, by setting buildings down by up to 5m below existing levels and , by colouring the façade of the building to blend with the sky;
- reduction of the visual effects of the service yard and parking areas, in operation, by principally setting these areas down from the level of the intervening ridge which closely follows the A5. Effects would then be further reduced by retaining and supplementing A5 boundary vegetation along the ridge; Building siting alongside the A5 also benefits from intervening existing planting and foreground buildings off site with the High Cross plateau in some views;
- the office components of new buildings along the north western edge of the Site, would be located on the lower parts of the façade and are proposed to be, with the building parcels, set down in floor level from the edge of the A5. These components of the buildings, moving traffic and street lighting would be completely concealed in a relatively short period of time by strengthened A5 boundary planting;

- the siting of the buildings in Parcel I and J means that they are typically seen against the back drop of existing buildings in the scene, from most potential angles of view.
- current best practice measures would be used for road, yard and building lighting design to minimize potential light spill, glare and sky glow to levels to be approved by the Harborough District Council;
- the maintenance of a sense of “emptiness” in some long views and positive skylines, where this attribute is observed and not already diminished by the effects moving vehicles on the A5 and existing built form, in such views;
- buildings within Parcel E and associated parking areas can be set down low in the scene so that direct longer views to distant skylines across the disused railway and across toward the Manor Farm Wing Turbine from residents on Main Street in Willey are maintained and not obstructed or intruded upon. The dense existing tree cover along the western side of the A5 also assists in the integration of buildings set low down in this area. This arrangement of open land, also maintains views toward and across open land to the north of Parcel I which is edged by a new ridge top spinney on the edge of Parcel I. Parcel I has also been positioned where it would be out of sight from properties in Willey Village and parcel J has been reduced in height to reduce its potential visibility in more oblique views;
- overall, the new building parcels have been sited and designed in locations, along the A5 corridor, to reduce potential day and night time effects upon the most readily perceived open rural settings around the existing village of Willey or upon a visible ‘emptiness’, where this exists and is potentially experienced in views from within the Rugby green belt.

Remedial Measures:

- remediation for loss of some scattered roadside trees and for the resulting increased visual effects of the A5 widening, on walkers to the east of Willey, in operation, through the incorporation of a new wide grass verge, a roadside hedgerow and roadside trees combined with a shallow bank between the new edge of the A5 and field edges, in a manner that respects and enhances distinctive local roadside character;
- the addition of shelter belts of up to 25m width to enhance the containment of tops of proposed buildings alongside the A5 where they do not obstruct positive long views, which at the same time reinforces distinctive features of this part of the High Cross plateau.

*Zone 2 – to the west of the A5 to the south of Magna Park*

Avoidance measures include:

- avoidance of a planning application for the site that significantly amends parameters that have already received planning consent in the committed HGV park scheme for the same site.

Reduction measures:

- reduction of the visual effects of the new gatehouse building, by limiting its height significantly below that of background tree cover;

- removal of a vehicle maintenance building which would have exceeded the height of proposed containers, from the proposed scheme;
- change of use from a parking area to a vehicle training area, enabling some lighting in the upper north west corner of the site, to be dimmed outside normal day time hours;
- use of a demountable and moveable forklift type lifting equipment for transferring containers to avoid the need for permanent and fixed height lifting cranes, reducing the permanence of any visual impact ;
- limiting the height that containers can be stored at to two shipping containers high (5.9m);
- restrictions have been made on the height that containers can be stored at to two shipping containers and (5.9m) location of container storage areas on the lower parts of the site where they benefit from most coverage from a proposed planted earth bank. The top of the planted bank is up to 7m higher than the ground level of the hedge on the site boundary and is on average 2.5m above the level of the containers. The width and height of the belt by year 10, is anticipated to deliver year round visual containment to all parking areas and to have largely concealed the gatehouse building on higher ground within the site by that time. The gatehouse building is coloured dark blue to assist it being recessive and blending into its mature tree background when viewed from the south west. **(See Vol 3 Technical Appendix F.1 Figure 9.6zzzzzs and 9.6zzzzzt)**;
- current best practice measures are incorporated for road, yard and building lighting design to minimize potential light spill, glare and sky glow to levels to be approved by the Harborough District Council.

Remedial Measures include:

- establishment of a new 10m wide native woodland matrix mix and a native and ornamental shrub mix belt to define the western boundary of the application site;
- establishment of a 25m wide native woodland belt, with some larger trees ( including some evergreen species) on a bank set above and behind the existing tall hedge and hedgerow trees that are retained to strengthen the southern boundary and deliver visual containment of site activities;
- establishment of a 10-15m wide native woodland matrix belt at the top/north of the site to limit views to vehicles entering the facility in views from the south and south west.

9.6.4 Further landscape character and nature conservation enhancement measures are listed in **Chapter 12 Ecology and Nature Conservation** and are included within the design and access statement and not repeated here.

9.6.5 The above measures have been incorporated in the scheme design and development description and the scheme is assessed in the following section as a scheme where mitigation has been integrated into the scheme design through an iterative design process.

### Potential Impacts/Issues

9.6.6 Summary tables of the anticipated **operation stage** impacts effecting landscape and visual receptor groups are provided below in **Table 9.4**. This section, as for construction, first



assesses landscape effects and then is followed by consideration of the operation stage effects on identified visual receptor groups.

**Table 9.4 Anticipated Operation Stage Impacts**

Receptor	Anticipated Operation Stage Impacts
<b>Landscape receptors</b>	
<p><b>Receptor 1 – Lutterworth Lowlands</b></p> <p>Zone 1 – To the south east of Mere Lane</p> <p>Zone 2 – To the south of Magna Park</p>	<p>An operational connecting road, lighting, two additional bio discs and associated landscape infrastructure</p> <p>An operational HGV Park and Rail Freight Shuttle Terminal and distribution area, with installed gatehouse building , Moving HGV's, container loading, 24/7 lighting, a training area and associated landscape infrastructure including attenuation features</p>
<p><b>Receptor 2 – Upper Soar</b></p> <p>Zone 1 - Low lying clay vales farmland landscape type</p> <p>Zone 1 - Soar tributary floodplains and terrace landscape type</p>	<p>An operational logistics site and associated buildings, new road accesses from the A5 and a widened A5. Services Farm , Magna Park Hub, Bittesby Country Park and meadow area, restored network of footpath and bridleway routes, together with an establishing Landscape and drainage infrastructure</p> <p>Direct effects of a Bittesby Country Park, new attenuation features and road Infrastructure, restored network of footpath and bridleway routes, together with an establishing Landscape</p>
<p><b>Receptor 3 – High Cross Plateau</b></p> <p>Zone 1 – West of the A5, north of Magna Park</p> <p>Zone 2 –West of the A5, south of Magna Park</p>	<p>Indirect effects of the operational A5 junctions and widening scheme, new building façades and establishing associated landscape infrastructure.</p> <p>Indirect effects of an operational HGV Park and Rail Freight Shuttle distribution area, with installed gatehouse building , Moving HGV's, container loading, 24/7 lighting, training area and associated landscape infrastructure including attenuation features</p>
<b>Visual receptors or receptor groups</b>	

Receptor	Anticipated Operation Stage Impacts
<p><i>Zone 1 Parts of the Application Site</i></p> <p>Walkers on the Leicestershire Round and two residents, from within and near to the Scheduled Monument at High Cross</p>	Views 1a and 1b - Installed building, upper levels of façade.
Resident at Claybrooke Grange and road users on Frolesworth Road	View 2a and 2b - Installed buildings, upper levels of facade
Residents and road users on Woodway Lane	View 3 - Installed building facades, operational site and foreground planting bank around service yard of parcel G, other planting as it matures enclosing the blank facades of other buildings
Night time - Residents and road users on Woodway Lane	View 3 –Partial views of installed lighting on roads, service yards around Parcel G and some outer building edges and establishing associated landscape infrastructure
Visitors to St Peter's Church, Claybrooke Parva	View 4ai –Installed building facades, and establishing associated landscape infrastructure
Walkers on footpaths south of Claybrooke Parva	View 4a <sup>ii</sup> and 4a <sup>iii</sup> - Installed buildings, upper levels of facades and associated landscape infrastructure View 4 aiv- building facades and infrastructure planting
Night time - Community of Claybrooke Parva	View 4ai – Indirect effects of reduced sky glow
Walkers on footpath W92 and residents at the White House	View 4bi- - building facades, attenuation wetland and infrastructure planting View 4bii-Parcel L building façade new landscape infrastructure
Bridleway users on W86	View 4ci-building facades Plot L and K and infrastructure planting, 4cii –Service Farm, Buildings and Planted bank in front of Parcels, K and L 4ciii- Top of building façade of Parcel K, new wetland attenuation areas and establishing wet woodland and wetland planting.4civ- Parcel K building façade, planted rollover bank and new wetland area and some wet woodland planting 4cv- The Façade of the building on Parcel J, A building in parcel E , establishing planting 4cvi- A parking area and hub building and establishing planting around the parking area, pitches in middle ground and Parcel I façade and new planting

Receptor	Anticipated Operation Stage Impacts
	beyond
Visitors to the Ullesthorpe Moat SM	View 5ai - no effect 5aaii- Upper parts of the facades of buildings principally in Parcels J and K
Visitors to the Ullesthorpe open access land	View 5aiii- Upper parts of the facades of buildings principally in Parcels J and K.
Walkers on footpath W89 and in open access land south of Ullesthorpe	View 6ai – To south, installed upper sections of building facades G,H and I, planting belts proposed along the parish boundary as they mature To south west foreground planted banks around service yards and new building facades for Parcels J, K and L View 6bii - foreground planted banks around service yards and. new building facades for Parcels J, K and L View 6biii – foreground planted banks around service yards and. new building facades for Parcels J, K and L and new planting View 6biv -foreground planted banks around service yards new attenuation lakes, planting and. new building facades for Parcels J, K and L
Walkers and horse riders on a permissive path south of Ullesthorpe	View 6b - Installed upper sections of building facades most parcels, foreground planted bank around service yards and planting belts proposed in the foreground on farmland, as they mature.
Specific view and visitors on permissive paths and on permissive open access land at Bittesby Scheduled Monument	View 7 - Installed upper sections of building facades, the foreground planted bank around some service yards for Parcels G and I and other planting belts existing and proposed in foreground farmland as they mature.
Residents and users of the Lutterworth Road on the eastern edge of Ullesthorpe	View 8ai - The upper parts of the façades of the installed buildings, principally, Parcel G, the foreground planted bank around service yard and other planting belts proposed along the parish boundary, as they mature.
Night time - Community of Ullesthorpe	View 8ai - Installed building façade lighting, lighting of service yards and sky glow effects.
Sequential view taken from the Ullesthorpe Windmill	View 8aaii- Installed building facades of Parcel G,H and I at upper levels, a new and developing planted spinney

Receptor	Anticipated Operation Stage Impacts
	<p>alongside the Ullesthorpe parish boundary local ridge line and hedgerow and partial views of the tops of establishing planting on banks along the northern and western edges of the new building in Parcel G .View 8aiii-Upper parts of façade of Parcel G planting along parish boundary as it matures</p>
<p>Bridleway users between Chuckey Hall and the A5, near Willey</p>	<p>Views 9a and 9bi - Installed building facades of Parcels G,H , I and partial views of J and K , access roads, and foreground planted bank around service yard, service yard activity, and other banks and planting along the access roads and within parking areas, as it matures. View 9bii- Partial views of the upper parts of parcels J and K</p> <p>View 9c - Installed building, upper levels of façade Parcel G, J and K</p>
<p>Walkers on a footpath, some residents and road users on the Ullesthorpe Road, to the south of Ashby Parva</p>	<p>View 10a and View 10b - Installed building, partial views if upper levels of facade of Parcels G and I</p>
<p>Workers within Magna Park</p>	<p>View 11 - Installed new access road and associated landscape infrastructure.</p>
<p>Road users on Mere Lane and users of adjacent permissive bridleway routes</p>	<p>View 12a – A closed road and new footway route/connection. The experience of using the new road from the A5.</p> <p>View 12b - A new roundabout junction would be created in the foreground within an existing wooded context, tree planting in the centre of the roundabout and visible upper levels of the façade of the proposed building beyond establishing foreground layers of existing and proposed planting. Conversion of part of Mere Lane to a bridleway with new connections to the North-west of Mere Lane accommodated within the junction design.</p> <p>View 12c – Installed buildings in Parcels H and I, Installed new roads, new roadside boundary planting and new planting along the existing watercourse. Some enhancement of existing woodland belts and planting of the new roundabout junction.</p> <p>View 12d - An installed buildings in parcel G,, service yards, access roads and boundary fencing. Associated lighting and new planting to the edge of Mere Lane and</p>

Receptor	Anticipated Operation Stage Impacts
	<p>alongside the internal access roads and within parking areas.</p> <p>View 12e – An installed building, service yards, access roads and boundary fencing. Associated lighting and new planting to the edge of Mere Lane and alongside a retained bridleway corridor.</p> <p>View 12f - Installed access junction, installed and operational visitor car park, retained and upgraded and permanent bridleway routes and improved access for pedestrians.</p>
<p>Road users on Coal Pit Lane and nearby walkers on footpaths to the north of Willey in the Green belt</p>	<p>View 13 – Installed top upper sections of building facades for Parcels G, H,E, I ,J, K and L,</p> <p>View 14a – Installed building view of upper parts of the façade.</p> <p>View 15 - The Installed building, the planted bank around the service yard and car park planting, as it matures.</p>
<p>Walkers on footpaths to the south of Willey</p>	<p>View 14b - The upper part of the façades of buildings in of Parcels H and I, new planting, predominantly on the east side of the A5, as it matures.</p>
<p>Road users and residents on Main Road in Willey</p>	<p>View 14c &amp; View 14d- Residents partial filtered direct views of the tops of buildings in Parcel E, Road users Views of the tops of building facades in Parcels J and K</p>
<p>Night time - Road users and residents on Main Road in Willey</p>	<p>View 14c &amp; View 14d- Residents - partial views of lighting in Parcel E, Road users views of street lighting to front of Parcel J and some lighting at lower levels in short term</p>
<p>Visitors to the Churchyard of St Leonard, Willey</p>	<p>View 14e- Partial views of the upper parts of building facades in Parcels J and some of K</p>
<p>Road users, walkers alongside the A5 and workers at Willey fields Farm</p>	<p>View 16a - The installed buildings on Parcels K , the planted boundary to the A5, internal access road, greenway route and planting to plot frontages View 16b – The installed buildings on Parcels H and I , the foreground widened A5 , some yard areas between buildings and the planted bank alongside the A5 as it matures. View 16c - An installed and planted new roundabout junction, wide grass verges on the roundabout and either side of the new carriageway, hedge planting and post and rail fencing, tree</p>

Receptor	Anticipated Operation Stage Impacts
	<p>planted shallow banks beyond hedgerows alongside the A5 and along the new access road parallel to Mere Lane. Site edge planting as it matures and buildings in Parcel H . Also, new lighting at the roundabout junction and approaches and the downgraded end of Mere Lane to a public bridle way and a crossing by the junction View 16d- Building on Parcel J, Partail views of buildings and pitches in Parcel E. Planting as it matures. View 16ei- View16eii- Partial view of the upper parts of facades of buildings in Parcels K, J, I and L, establishing A5 planting and pitches and planting in front of Parcel I</p>
<p>Night Time- road users on the A5, the Community of Willey and residents at White House Farm along the A5</p>	<p>View 16b – Road users - Lighting associated with installed buildings, service yards and car park areas in Parcels H, I, E, J and K until to mid-term . Lighting of the new A5 junctions and approaches and a new junction on Mere Lane. A new bank and planting along the eastern side of the A5, as it matures. Residents – no additional sky glow View 16d- Lighting associated with installed buildings, service yards and car park areas for Parcel E, and J until to mid-term. Resident to east –some short term down lighter security lighting soon concealed by intervening planting on bank . Resident to west – very limited given intervening dense planted features</p>
<p>A resident at little Walton Lodge Farm and road users on the Lutterworth Road to the south</p>	<p>View 17 - Installed A5 roundabout junction and lighting, new planting to west of roundabout. Upper parts of a building façade in Parcel H.</p>
<p><i>Zone 2 Parts of the Application Site</i> Road users on the Lutterworth Road</p>	<p>View 18 - New building, HGV movements and parking, storage containers and loading operations, establishing landscape works infrastructure and lighting installation</p>
<p>Road users on the A5 and visitors to the Liberty Hotel</p>	<p>View 19 - New building, HGV movements and parking, storage containers and loading operations , establishing landscape works infrastructure and lighting installation</p>
<p>A resident at Moorbarns and walkers and horse riders on bridleway X32</p>	<p>View 20- New building, HGV movements and parking, storage containers and loading operations , establishing landscape works infrastructure and lighting installation</p>
<p>Walkers and horse riders on Bridleway X32</p>	<p>View 21 - New building, HGV movements and parking,</p>



Receptor	Anticipated Operation Stage Impacts
	storage containers and loading operations, establishing landscape works infrastructure
Road users on the A4303 and adjacent workers in offices	View 22 – Upper parts of new building, HGV movements and parking, loading operations , establishing landscape works infrastructure and lighting installation

### Consideration of operation stage effects on identified landscape receptors

9.6.7 During operation, the following effects are predicted on landscape receptors:

#### *Landscape Receptor 1 – Lutterworth Lowlands LCA*

*(Including the part of the Site to the south east of Mere Lane in Zone 1 and the detailed application site to the south of Magna Park in Zone 2, each are considered separately below)*

#### *Zone 1- South east of Mere Lane*

##### Sensitivity

9.6.8 Given the explanation in **paragraphs 9.5.11 - 9.5.15**, above, regarding landscape sensitivity considerations, this part of the Site is considered to be of **low** community value and of **low** susceptibility.

9.6.9 The area to the south east of Mere Lane would be able to accommodate change, of the type proposed, as it comprises some features and elements, identified in the baseline assessment, that are discordant resulting in an indistinct character, there are no recognised landscape designations applying to this area, the area no longer includes landscape features of value, through use, perception or historical or cultural associations and contains no features that could not be replaced. The area has low levels of scenic quality due to its exiting mixed built context and has very limited visual sensitivity due to the significant woodland and built containment afforded to this area. The sensitivity of this part of the Lutterworth lowlands is therefore considered to be **low**, at a community level.

##### Magnitude considerations – During operation

##### Size or scale

9.6.10 Anticipated operation stage impacts include those arising from an operational connecting road, lighting and two additional bio discs and associated landscape infrastructure.

9.6.11 The operational connecting road, associated lighting, additional bio discs, the connecting pipework and associated landscape infrastructure are considered to constitute a minor change to the positive key characteristics and attributes in this part of the Lutterworth Lowlands landscape character area (LCA), resulting, despite mitigation, in some limited loss of establishing woodland, some standard willow trees and an area of semi improved, rough grassland. Given the surrounding Magna Park, the proposals would be a minor new feature in the existing built context to the south east of Mere Lane. Size or scale - During operation,

During operation, the size or scale of change, within the Zone 1 Site, to the south east of Mere Lane, is considered to be **low adverse**, on the site, **low adverse to negligible** on the locality and **negligible** on the Lutterworth Lowlands district LCA, despite the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

9.6.12 Geographical Influence - The geographical influence of the above changes is considered to be **very low** with the above listed effects limited to a very restricted extent of the site, the immediate area of the locality and less than 1% of the Lutterworth Lowlands district LCA.

9.6.13 Duration and reversibility - The operation stage impacts are predicted to be long term (over 30 years) in duration but would be reversible and therefore the effects are assessed as being **medium** in this respect.

#### Magnitude

9.6.14 At a site level the scheme proposals in this area would cause slight losses to landscape features and would involve the introduction of some uncharacteristic elements. However, Landscape and ecological mitigation measures in this area would lead to maintained and some improved connectivity with adjacent habitat and some enhanced woodland management in remaining belts. The changes to the Site would cause a barely perceptible loss of landscape features and appreciation of the incorporation of some uncharacteristic elements and activity in even the immediate locality. The anticipated effects of this part of the scheme and associated activity, during operation, are of a scale and type that would not be discernible at the Lutterworth District LCA level. The anticipated level of magnitude, on this part of the Zone 1 Site, during operation, is therefore considered to be **low adverse**, on this site, **low adverse to negligible**, on the immediate locality and negligible on the Lutterworth Lowlands district LCA, and **low adverse to negligible**, overall, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

#### Level of effect on Landscape Receptor 1 – Lutterworth Lowlands (to the south east of Mere Lane) - During operation

9.6.15 The new road in this part of the scheme and the newly installed bio discs do not quite fit with the character landscape and are at variance with positive characteristic features and elements of the wider Lutterworth Lowlands and would slightly detract from local distinctiveness, however, the effects would be small scale and limited to three small sections of recently planted woodland and an area of rough grassland which appears to have been created at the time of the land being utilised for an airfield in 1939. This landscape receptor area is in a place where the context is dominated by surrounding buildings, their service yards and an existing service farm with settlement ponds. Effects on the wider locality and district LCA are considered to be negligible given the containment afforded to the Site and the very small scale change within the context of the district LCA. The anticipated level of effects, on the part of the Zone 1 Site, to the south east of Mere Lane, within the Lutterworth Lowlands LCA, which has been identified as being of low sensitivity, during operation, are therefore considered to be **minor adverse**, on the site, **negligible** on the locality, **negligible** on the Lutterworth Lowlands district LCA, and **minor adverse to negligible**, overall.

#### *Zone 2- South of Magna Park*

Sensitivity

- 9.6.16 Given the explanation in **paragraphs 9.5.26 - 9.5.28**, above, regarding landscape sensitivity considerations, this part of the Site is considered to be of **medium to low** community value and of **low** susceptibility.
- 9.6.17 This area to the south of Magna Park is considered to be able to accommodate change of the type proposed, as the surrounding context comprises some features and elements, identified in the baseline assessment, that are discordant, resulting in an indistinct character. There are also no recognised landscape designations applying to this area. The area includes some landscape features of value, through use, perception or historical or cultural associations, including boundary vegetation and the grassland areas that would be lost are not a feature that could not be replaced. The area has low levels of tranquillity and lower levels of scenic quality due to its exiting mixed built context and proximity to the A5 and A4043. The conclusions regarding sensitivity in this case have also been moderated by the fact that the site already has committed development in the form of an HGV Park. Therefore, this Site appears to be able to accommodate the proposed HGV park and rail freight shuttle terminal envisaged and is considered to be of **low**, overall, landscape sensitivity.

Magnitude considerations – During operation

Size or scale

- 9.6.18 Anticipated operation stage impacts include those arising from an operational HGV park and rail freight shuttle terminal and distribution area, with installed gatehouse building, moving HGV's, container loading, 24/7 lighting, a training area and associated landscape infrastructure including attenuation features.
- 9.6.19 During operation, the scheme would constitute a major change on the site itself, which was previously an open semi improved grassland/arable field; however, boundary planting would have been beneficially conserved to maintain some enclosure to the site in the shorter term. There would also some small scale improvements to the boundaries of the site evident in the shorter term with the further enclosure to the east and south provided by an earth bank and developing planting. Also, from establishing trees on the north east corner of the site and some new planting in the vicinity of the access road. The activity on site including vehicle movements, lighting, a building and containers and loading would form a new feature in the landscape which would be conspicuous in the locality in the short term but would only cause a minor change in the context of the Lutterworth Lowlands district LCA. In the medium term, the scale of effect is anticipated to remain largely the same, on the Site itself. However, with the establishment of planting at various points around the site perimeter the indirect effects of the scheme on the character of the locality and on the Lutterworth Lowlands District LCA are considered to diminish so that the impacts of the scheme constitute a reduced, minor change to the characteristics of the locality and contribute a minor new feature when perceived in the wider landscape, with indirect effects at a district LCA level, which were already small, anticipated to reducing further. During operation, the size or scale of change, within the Zone 2 Site, is considered to be **high adverse**, on the site, **medium adverse** reducing to **low**, in the mid-term, on the locality and **low adverse** reducing to **very low**, in the mid-term, on the

Lutterworth Lowlands district LCA, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

- 9.6.20 Geographical Influence - The geographical influence of the above changes are considered to be **medium reducing to very low**, with the above listed effects occurring across a large part of the Zone 2 Site, which is small in scale, influencing a 1.5km locality in the short term reducing to 0.5km in the mid-term and with effects across approximately 3% reducing to 1% of the Lutterworth Lowlands district LCA, in the mid-term.
- 9.6.21 Duration and reversibility - The operation stage impacts are predicted to be long term (over 30 years) in duration and would be partially reversible and therefore the effects are graded **high** in this respect.

Magnitude

- 9.6.22 During operation the new scheme would cause a large scale change in land use at the site level and would introduce some uncharacteristic and conspicuous features and activities, which would persist. Some landscape and ecological design measures in the Zone 2 Site would lead to maintained and some improved connectivity and some enhanced habitat and would reinforce existing boundaries. The indirect effects on the locality would in the shorter term be noticeable and would include some uncharacteristic activity and features, in the medium term with the establishment of enclosing planting belts the magnitude of effects on the locality is anticipated to reduce to only give rise to slight effects on the surrounding area, The anticipated effects on the Lutterworth Lowland district LCA would also correspondingly reduce as indirect effects diminish with the enhance Site enclosure. The anticipated level of magnitude, during operation, is therefore considered to be **high adverse** on this site, **medium adverse**, reducing to **low**, in the mid-term, from 1-1.5km to 0.5km, on the locality, **low adverse**, reducing to **very low**, in the mid-term, from approximately 3% to 1% on the Lutterworth Lowlands district LCA, and **medium adverse** reducing to **medium to low**, in the mid- term, overall, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

Level of effect on Landscape Receptor 1 – Lutterworth Lowlands LCA (Zone 2 Site to the south of Magna Park) - During operation

- 9.6.23 The land uses of the current scheme closely resemble the parameters of the committed HGV park on the Site. In operation the proposed scheme has one less building and substitutes containers for HGV Parking and a training area for a car park. There is slightly more lighting in the proposed scheme but this is offset by the greater potential to dim the lighting in the training area. The committed development has also reduced influenced the judgements about the level of perceived susceptibility of this Site, to similar types of operation. These considerations have led to the judgement that the Site is of low sensitivity overall. The level of sensitivity would have been considered to have been medium to low, in the absence of a committed development of a similar type on the Site. This landscape receptor area is also in a place where the context is dominated by surrounding buildings, and their service yards and car parks. At a site level, the proposed land use is not now in conflict with committed development on the Site, however, the operational scheme does have an adverse effect on the existing land cover .and landform, and would diminish some of the distinctive characteristics of the

Lutterworth Lowlands and these effects would largely persist despite the boundary improvements. However, whilst the operational site includes elements that are at variance with the character of the locality, in the mid- term with the establishment of enclosing planting the effects in terms of magnitude on the locality and indirect on the district LCA are anticipated to become small scale. The anticipated level of effects, on the Zone 2 Site, within the Lutterworth Lowlands LCA, which has been identified as being of low sensitivity, during operation, are therefore considered to be **moderate adverse** on the site, **minor adverse**, reducing to **negligible**, in the mid-term, on the locality, **minor to negligible adverse** reducing to **negligible** on the Lutterworth Lowlands district LCA, in the mid-term and **minor adverse** reducing to **minor adverse to negligible**, in the mid-term, overall.

*Landscape Receptor 2 – Upper Soar LCA*

*(Part of the Site to the north-west of Mere Lane, considered under the headings of the two landscape types that make up the site below)*

*Zone 1 - Landscape Type - Low lying clay vale farmland with gentle ridges*

Sensitivity

- 9.6.24 Given the explanation in **paragraphs 9.5.39 - 9.5.50**, above, regarding landscape sensitivity considerations, this part of the Site is considered to be of **medium** community value and of **medium** susceptibility. It is considered that the clay vale farmland and gentle ridges landscape type, in Zone 1, to the north-west of Mere Lane, would be able to partly accommodate the logistics development proposed, due to the nature of its existing character and local context. Some areas of this part of the site are more vulnerable and any changes to these areas would either need to be avoided, reduced or remediated.
- 9.6.25 This area includes some large to very large arable fields which are commonplace elements and are features creating a generally unremarkable character, particularly alongside the adjacent A5 corridor but which do contribute some sense of place. This part of the site is not designated for its landscape at any levels and has been judged in this assessment to be of medium value, at a community level. This landscape type on the site does contain some features of value through their use, perception or cultural and historic associations; however there is significant evidence of degradation throughout. Some features would not be able to be replaced but nor are they of such rarity or value that their loss is significant. The overall sensitivity of this part of the Site has therefore been judged to be **medium**, at a community level.

Magnitude considerations – During operation

Size or scale of change

- 9.6.26 Anticipated operation stage impacts include those arising from an operational logistics site and associated buildings, new road accesses from the A5 and a widened A5. Also, a services Farm, Magna Park Hub, Bittesby Country Park and meadow area, a restored network of footpath and bridleway routes, together with an establishing Landscape and drainage infrastructure.



- 9.6.27 The operational logistics park and its associated infrastructure in the low lying clay vales farmland with local ridges landscape type, in Zone 1, is considered to cause a permanent alteration to a large part of this landscape type which would result in part of the area becoming a new landscape type and a connected extension of the adjacent Magna Park. In the shorter term the scale of the change at a Site level is considered to be large with approximately a quarter of this part of the Site retaining existing or locally distinct land uses and landform. The remainder would be permanently altered with level terraces and large scale buildings replacing arable farmland and smaller scale built features. The operation stage scheme includes the retention of some of the key features and characteristics of the Upper Soar LCA, including a local ridge line in the context of a meadow in Parcel D, the positive wooded character along Mere Lane, and the positive wetland provided by the Mere Lane Lagoon. The design of the new logistics park site has been developed in a manner and has proposed an operational stage scheme, that is responsive to its setting, attempts to positively integrate with its surroundings, seeks to limit adverse impacts and deliver landscape and recreation enhancements. Given the positive landscape vision for the new landscape type that would be created there is anticipated to be some reduction in the level of adverse effects as the new landscape framework establishes, in the mid-term, With the establishment of the meadow land archaeology deposits would be afforded enhance protection and secured long term management. This area would also be utilised to take some access pressure off the Bittesby scheduled monument itself and would provide enhanced opportunities for informal recreation alongside the proposed Bittesby Country Park which predominantly occupies the Soar tributary landscape type within the Site.
- 9.6.28 The operational scheme would in the mid-term when the proposed landscape infrastructure matures, provide a setting that more effectively visually integrates the new buildings, roads, yards and hub with surrounding communities whilst also providing a publically accessible park. In the mid-term, whilst there would be permanent alteration to existing landscape features and some key characteristics, some of the alteration to the landscape structure of the new landscape created would begin to provide measurable improvements in terms of habitat creation, some restored habitat connectivity, improved field boundary definition along the A5, some restoration and strengthening of distinct field boundary patterns and better visual integration of the new features of the development within this part of the Site but also when experienced in the locality. In the mid-term, the scale of effects of the operational logistics park on the locality are anticipated to reduce there would still be some conspicuous alternation in this part of the Site but the settings of routes through this part of the Site would have improved and new planting belts on some local ridge lines locations would have developed sufficiently to better integrate the new development but also better assimilate the existing Magna Park, In the mid-term the night sky effects arising from the existing Magna Park, on the locality would also have been reduced and improved. Therefore, whilst the operational logistics park would remain noticeable in the locality its integration would be improved. In the medium term, the operational scheme in this part of the Site would by reducing the effects on the locality and by delivering and improved landscape structure at the Site level would reduce the scale of direct and indirect effects on the Upper Soar district LCA to a minor scale. During operation, the size or scale of change, within the Low lying clay vale farmland and local ridges landscape type, within the Zone 1 Site, is considered to be **high adverse**, reducing too **high to medium**, on



the site, **high to medium adverse**, reducing to **medium**, in the mid-term, on the locality, **medium to low** reducing to **low**, in the mid-term, on the Upper Soar district LCA, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

Geographical Influence

- 9.6.29 The geographical influence of the above changes are considered to be **medium** with the above listed effects across a large part of this landscape type, within, within the Zone 1 Site, influencing a 1.5km locality and with effects across approximately 17% of the Upper Soar district LCA.

Duration and Reversibility

- 9.6.30 The operation stage impacts are predicted to be long term (over 30 years) in duration and only partially reversible, therefore, the effects are graded **high** in this respect.

Magnitude

- 9.6.31 In the shorter term the large scale change to this landscape type within the Zone 1 Site would be evident and conspicuous at the site level. In the medium term, with the establishment of the multi-functional green infrastructure within this area the magnitude of effects arising from the buildings, roads and yards would be noticeable but would be better integrated and assimilated into its local context. In the short term the effects on the locality would extend out to approximately 2km, however, as the new landscape framework becomes more established in the mid-term the effects on the locality start to reduce so that despite some uncharacteristic features being perceived in the scene they would be perceived over a smaller area and a smaller extent would be noticeable. There would be a corresponding reduction in the amount of indirect and direct adverse effects perceived at the district LCA level. The anticipated level of magnitude, during operation, is therefore considered to be **high adverse** in the shorter term, reducing too **high to medium adverse**, on this part of the site, **high to medium adverse**, reducing to **medium in the mid-term**, from approximately a 2km to 1-1.5km, on the locality, **medium adverse**, reducing to **medium to low**, from approximately 20% to 17% of the Upper Soar district LCA, in the mid-term and **high to medium** adverse reducing to **medium**, in the mid-term, overall, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

Level of effect on Landscape Receptor 2– Upper Soar LCA (Zone 1 to the north-west of Mere Lane - low lying clay vale farmland with gentle ridges landscape type) - During operation

- 9.6.32 In the shorter term at the Site level, the effects on the low lying clay vale farmland with gentle ridges landscape type arising from the operational logistics park would be at considerable variance with the existing landscape character and in terms of magnitude would affect a relatively large part of this landscape type. The scale of change would in the shorter term diminish the sense of place and new buildings would only be partially assimilated into their surroundings. In the medium term, whilst the changes would create a new landscape character in this part of the Site, the magnitude of adverse effects would reduce in scale and effects the landscape infrastructure framework for the site would become more effective and the new buildings, roads and activity would become better integrated into their local context.

The changes brought about by the establishing landscape framework would in the medium term appreciably reduce the effects of the operational scheme on the wider community and locality, with a corresponding reduction in effects on the Upper Soar district LCA. The anticipated level of effects, on the clay vale farmland and local ridges landscape type, within Zone 1 of the application Site, within the Upper Soar LCA, which has been identified as being of medium sensitivity, during operation, are considered to be **moderate to major adverse** on the site in the short term reducing to **moderate** in the mid-term, **moderate adverse** on the locality and **moderate adverse** reducing to **moderate to minor adverse** on the Upper Soar district LCA, in the mid-term and **moderate adverse** reducing to **moderate to minor**, in the mid – term, overall.

*Zone 1 - Landscape Type – Soar tributary flat floodplains and terraces*

Sensitivity

- 9.6.33 Given the explanation in **paragraphs 9.5.68 - 9.5.75**, above, regarding landscape sensitivity considerations, this part of the Site is considered to be of **medium** community value and of **high to medium** susceptibility. It is considered that the Soar tributary and flat floodplains and terraces landscape type, in Zone 1, to the north-west of Mere Lane, would be able to partly accommodate the logistics development proposed, due to the nature of its existing character and local context. Some areas of this part of the site are more vulnerable and any changes to these areas would either need to be avoided, reduced or remediated.
- 9.6.34 This area includes some large to very large arable fields, extending into it, to the north, which are commonplace elements and are features creating a generally unremarkable character, where field boundaries have in the past been removed but which do contribute some sense of place. This part of the site positively contributes to the wider regional water catchment. This part of the site is not designated for its landscape at any levels and has been judged in this assessment to be of medium value, at a community level. The area does however; contain a nationally designated scheduled monument site which is of high value due to its cultural and historic associations. This landscape type on the site also contains some other features of value through their use, perception or cultural and historic associations, including the remains of the Midland Counties railway which has also substantially degraded the character of this part of the Soar valley but is now a feature of local cultural significance, in its own right; The area whilst showing some signs of significant past degradation has been recently restored through a HLS scheme and had some woodland planting, wetland enhancements and other land use changes which are of benefit to wildlife, the scheduled monument site and in terms of visual amenity. Some features would not be able to be replaced but nor are they of such rarity or value that their loss would be significant. Therefore, the overall sensitivity of this part of the Site has been judged to be **medium**, at a community level.

Magnitude considerations – During operation

Size or scale of change

- 9.6.35 Anticipated operation stage impacts include those arising from an operational Bittesby Country Park, new attenuation features and road Infrastructure, restored network of footpath and bridleway routes, together with an establishing Landscape.

9.6.36 At the site level, the operational logistics park scheme, would in the shorter term result in some permanent alteration to small parts of the Soar tributary floodplains and terrace landscape type within the Zone 1 Site, where attenuation features would replace former farmland and a road would replace some arable land and introduce traffic flows across the main tributary valley within the Site. In the short term, these features would be conspicuous alterations and activity within this landscape type with some localised perceived adverse effects. Added to this the indirect effects of new buildings in the adjacent low lying clay vales landscape type would be very apparent before the landscape infrastructure around them has established. In the mid-term, as the wetlands become established and landscape infrastructure alongside roads, around the crossing and on the edges of building parcels becomes more mature, the initial adverse effects would diminish but still remain noticeable, particularly in winter. The establishment of a Bittesby Country Park on other parts of this area would bring with it secured landscape and ecological management for existing and new landscape infrastructure in and alongside the Soar tributary and with this would come a network of additional permanent access routes, The Bittesby Country Park would also secure sensitive management of the Bittesby deserted village scheduled monument site. The functional attenuation features would control water flow and maintain existing levels and would enhance and extend the wetland habitat that already existing in this landscape type. Retention of access routes, management of heritage assets, landscape improvements and habitat creation and enhancement are all initiatives encapsulated in the scheme design for this landscape type and would at the same time further the objectives of the key statements of Environmental opportunity (SEO's) published by Natural England in their Leicestershire Vales National Character Area Profile 94, over washing this area, at a regional level. In the mid-term with these initiatives in place and with infrastructure established the effects of the operational scheme on the landscape character at a Site level are anticipated to become remain noticeable as more beneficial effects of the scheme are realised and the new landscape framework becomes established. The effects in this part of the Zone 1 Site, on the locality due to its valley location would only cause minor perceptual adverse effects in the shorter term during establishment of the landscape features, which would reduce further in the mid-term so that effects of the operational stage works become barely discernible as the wetland areas and landscape infrastructure becomes more established. A corresponding reduction in effects over time is anticipated on the Upper Soar district LCA, where effects in this character type would eventually become difficult to discern. During operation, the size or scale of change, within the Soar tributary floodplains and terrace landscape type, within the Zone 1 Site, is considered to be **medium to high**, reducing to **medium** in the mid-term, on the site, **low** reducing to **very low**, in the mid-term, on the locality and **low** reducing to **negligible** on the Upper Soar district LCA, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

#### Geographical Influence

9.6.37 The geographical influence of the above changes are considered to be **low** with the above listed effects largely limited to a very restricted extent within this landscape type, within the Zone 1 Site, effecting limited parts of a 0.5km immediate locality and with effects limited to approximately 6% of the Upper Soar district LCA.

Duration and Reversibility

- 9.6.38 The operation stage impacts are predicted to be long term (over 30 years) in duration and most would be permanent with some partially reversible, therefore, the effects are graded **high** in this respect.

Magnitude

- 9.6.39 The magnitude of effects arising on the Soar tributary floodplains and terrace landscape type at the Site level are anticipated to in the shorter term be affected by large indirect effects arising from the adjacent traffic, roads and buildings in the adjacent Site landscape type before their landscape infrastructure has established, Besides this direct effects of the operation stage scheme elements within this landscape type would be noticeable but would only partially be adverse, as the Bittesby Country Park would bring with it significant long term secure landscape, recreation, heritage and ecological management opportunities to other parts of this area. At the level of the locality the indirect effects of operation stage changes in this landscape type, in the shorter term would be slightly adverse with some apparent new features in the landscape, however, in the mid-term, these effects would not be anticipated to be noticeable. The same corresponding reduction in effect by the mid-term would also be anticipated at a Upper Soar district LCA level. The anticipated level of magnitude, during operation, is therefore considered to be **medium to high adverse** on this part of the site reducing to **medium** in the mid-term, , **low adverse** reducing to **very low** in the mid-term, on reduced parts within up to approximately 0.5km of the locality and **low adverse** reducing to **negligible, from** approximately 10% to 6% of the Upper Soar district LCA, in the mid-term and **medium to low** reducing too **low to very low** adverse, in the mid-term, overall, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

Level of effect on Landscape Receptor 2– Upper Soar LCA (Zone 1 to the north-west of Mere Lane - Soar tributary flat floodplains and terrace landscape type) - During operation

- 9.6.40 The level of effect anticipated from the operation stage of the development, on the Soar tributary floodplains and terrace landscape type, at a Site level is considered to remain at a moderate adverse level despite some improvement to the characteristics of the landscape type itself, in both the short and by the mid-term. This is due to the immediate indirect effects of the operational development within the adjacent character area, within the Site, which would continue to have a large indirect effect on some parts of the setting of the Soar tributary and would continue to influence the character of parts of this area due to the proximity and scale of adjacent buildings and the internal roads. Other parts of this Soar tributary landscape type within the Site would experience much lower indirect effects, including large parts of the Bittesby scheduled monument site. Meanwhile, the level of effect anticipated. There would be some small scale adverse effects arising from this landscape type which area anticipated to effect the locality, however by the mid- term these would be barely discernible. In the shorter term, the direct and indirect effects on this landscape type are anticipated to small scale at the level of the district LCA, In the mid- term the direct effects in this landscape type would be anticipated to be barely discernible at the Upper Soar district LCA level. The anticipated level of effects, on the Soar tributary floodplains and terrace landscape type, within Zone 1 of the

application Site, within the Upper Soar LCA, which has been identified as being of medium sensitivity, during operation, are considered to be **moderate adverse** on the site, **minor adverse** reducing to **minor to negligible** on the locality, in the mid-term, **minor adverse**, reducing to **minor to negligible** on the Upper Soar district LCA, in the mid-term and **moderate to minor adverse** reducing to **minor** in the mid-term, overall.

*Landscape Receptor 3 – High Cross Plateau LCA– Open plateau Landscape Type (West of the A5, considered for the Zone 1 part of the application site to the north of Magna Park, first and then the Zone 2 detailed application site to the south of Magna Park)*

9.6.41 This section considers the operation stage indirect effects on the High Cross Plateau LCA.

*Zone 1- to the west of the A5, north of Magna Park*

Sensitivity

9.6.42 Given the explanation in **paragraphs 9.5.93 - 9.5.102**, above, regarding landscape sensitivity considerations, the adjacent High Cross Plateau LCA is considered to be of **medium to high community value** and of **medium** susceptibility. Various key landscape characteristics which are in average to good condition need to be conserved and protected but for the most part this adjacent character area appears to be able to indirectly accommodate change of the type envisaged without undue consequences for the majority of valued features and is considered to be of **medium**, overall, landscape sensitivity (which is consistent with published character assessment findings).

Magnitude considerations – During operation

Size or scale of change

9.6.43 Indirect impacts include those arising from operational A5 junctions and A5 widening scheme, new building façades and establishing associated landscape infrastructure.

9.6.44 The Indirect effects of the operational A5, the new building façades and establishing associated landscape infrastructure are considered to constitute in the shorter term some noticeable change and from other places a minor change to the positive key characteristics and attributes of the High Cross Plateau landscape character area. The effects of the new buildings would be moderated in the short term by the graduated light blue to white colouring of the building facades set against a backdrop of existing Magna Park, light coloured buildings, already occupying the skyline and in other places directly against the sky behind establishing hedge and shelterbelt planting along the edge of parts of the A5. Developing new planting along the A5 would in the medium term would reduce the noticeable indirect effects arising principally from the new buildings in the landscape to the north and south of Willey to a minor new feature in the medium term. The established new planting alongside the A5 would remedy the effects of lost existing roadside vegetation, resulting from the A5 widening works and enhance the gappy and unmanaged boundaries elsewhere, in a manner that reinforces distinctive road edge and boundary treatments within the High Cross Plateau. Opposite Main Street in Willey some longer views, to the distant skyline have been maintained across the central valley by keeping land open and siting buildings in Parcel E which are also smaller scale than other buildings, low down in the scene. Longer views are also retained in both directions from Coal Pit Lane toward Chuckey Hall. During operation, the size or scale of



indirect change is considered to be **medium to low** reducing to **low**, in the mid-term, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

#### Geographical Influence

- 9.6.45 The geographical influence of the above changes are considered to be **medium to low** with effects limited to a 1- 1.5km localised area and approximately 5% of the High Cross Plateau district LCA. Opportunities to view the scheme are generally away from existing settlements, with only partial views from one edge of Willey and experienced from intermittent sections of some public footpaths, sections of Coal Pit Lane and otherwise from farmland, without public access, in this part of the High Cross Plateau Character Area.

#### Duration and Reversibility

- 9.6.46 The operation stage impacts are predicted to be mid-term (up to 10 to 15 years) in duration and partially reversible, and therefore the effects are graded **medium** in this respect.

#### Magnitude

- 9.6.47 Initially, despite the proposed light colouring of the upper parts of new building facades, the buildings being set down from the A5 and new planting being place, in the short term, there would continue to be some noticeable change to parts of the skyline, and the addition of some noticeable new uncharacteristic features experienced from within parts of the High Cross Open Plateau, to the north of Magna Park. In the mid-term, with the establishment of new landscape belts to the eastern edge of sections of the A5, the effects would reduce to more partial and smaller scale effects. Also the magnitude of potential adverse effects would be further moderated to the south of Willey by the beneficial effects of new planting as it matures, alongside service yards and along the eastern edge of the A5, which by the mid- term, would have restored a positive character to the A5 road edge. .With these changes by the mid-term the extent of effects experienced across the locality and the High Cross Plateau district LCA are also anticipated to diminish. The anticipated level of magnitude, during operation, is therefore considered to be **medium adverse** reducing to **medium to low** in the mid-term, with a reduction in the parts of the land affected, over time, within a 1 to 1.5km to a 0.5km locality and approximately 5% of the district, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

#### Level of effect on Landscape Receptor 3 – High Cross Plateau (to the west of the A5, north of Magna Park) - During operation

- 9.6.48 The operational A5, the new building façades and establishing associated landscape infrastructure would in the shorter term, conflict with the character of part of the High Cross Plateau by changing some previously undeveloped sections of skyline, in some limited views, by adding partial views of additional buildings into some parts of the scene. In the mid-developing planting along the eastern edges of the A5 term would reduce effects in combination with developing existing planting in the foreground in some views, so that only small parts of the scene are effected, and the established planting by the mid-term would enable restoration and enhancement of established roadside characteristic landscape features, including hedgerows, wide grass verges and tree belts. Overall, these changes are



anticipated to introduce some new buildings into the scene but would ensure that they are positively integrated with the character (including quality/value) of the High Cross Plateau, in the mid to longer term. The anticipated level of indirect effects, on the High Cross Plateau, to the west of the A5, alongside Zone 1 of the Site, which has been identified as being of medium sensitivity, during operation, are considered to be **moderate adverse** reducing to **minor to moderate adverse** in the mid-term.

*Zone 2 – to the west of the A5, south of Magna Park*

Sensitivity

- 9.6.49 Given the explanation in **paragraphs 9.5.108 - 9.5.117**, above, regarding landscape sensitivity considerations, the adjacent High Cross Plateau LCA is considered to be of **medium community value** and of **medium** susceptibility. Various key landscape characteristics which are in average to good condition need to be conserved and protected but for the most part this adjacent character area appears to be able to indirectly accommodate change of the type envisaged without undue consequences for the majority of valued features and is considered to be of **medium**, overall, landscape sensitivity (which is consistent with published character assessment findings).

Magnitude considerations – During operation

Size or scale of change

- 9.6.50 Indirect impacts include those arising from operational HGV park and rail freight shuttle distribution area, with installed gatehouse building, moving HGV's, container loading, 24/7 lighting, training area and associated landscape infrastructure including attenuation features.
- 9.6.51 The indirect effects arising from operational HGV park and rail freight shuttle distribution area are considered to constitute a minor change to the scene experienced from within the High Cross Plateau to the west of the A5, south of Magna Park, with limited alteration to perceived longer views and in existing views toward the site. The operational gateway building, moving HGV's and a fork lift with a crane attachment moving containers is anticipated to form a minor new feature in the landscape, even in winter. The establishment of a new 10m wide native woodland and shrub planting belt on the western boundary of the site and a 25m wide belt on a bank to the south, would further restrict, already limited effects so that the proposals would constitute no discernible change, to the longer views to distant skylines and the operational site and activity would form barely discernible feature in the wider scene, by the mid-term. During operation, the size or scale of indirect change is therefore considered to be **low** falling to **negligible**, in the mid-term, following the establishment of the landscape infrastructure and embedded design/mitigation measures.

Geographical Influence

The geographical influence of the above changes are considered to be **low** with effects limited to a 1km localised area and approximately 2% of the High Cross Plateau district LCA and away from existing settlements and experienced only on intermittent sections of the Lutterworth Road and from farmland, without public access, in this part of the High Cross Plateau Character

Duration and Reversibility

- 9.6.52 The operation stage impacts are predicted to be mid-term (up to 10 to 15 years) in duration and partially reversible, and therefore the effects are graded **medium** in this respect.

Magnitude

- 9.6.53 The operational HGV park and rail freight shuttle distribution area would introduce some new and uncharacteristic features into the scene experienced from within the adjacent High Cross Plateau LCA in the shorter term, particularly in winter, by the mid-term, with the establishment of site boundary planting no alteration to the key characteristics of the this adjacent area are anticipated to arise from the development. The landscape infrastructure proposed for the site would also reduce the amount of the locality and the extent of the High Cross Plateau district LCA that would be affected, by the mid-term. The anticipated level of magnitude, during operation, is therefore considered to be **low adverse** reducing to **negligible** mid-term with a reduction in the parts of the land affected, over time, from within a reducing amount of a 1km locality and affecting approximately 2% of the district, following the establishment of the landscape infrastructure and with the embedded design/mitigation measures.

Level of effect on Landscape Receptor 3 – High Cross Plateau (to the west of the A5, south of Magna Park) - During operation

- 9.6.54** The operational HGV park and rail freight shuttle distribution area and associated gateway building, containers and HGV movements would initially in the shorter term not quite fit with the character of the adjacent High Cross Plateau and the activities would affect small parts of the scene experienced. Positive long views would not be interrupted. In the mid-term, following the establishment of boundary woodland planting and shrub belts proposed on the Zone 2 Site the effects of the operational site is anticipated to become barely discernible from the adjacent High Cross Plateau. The anticipated level of indirect effects, on the High Cross Plateau, to the west of the A5, south of Magna Park, alongside Zone 2 of the Site, which has been identified as being of medium sensitivity, during operation, are considered to be **minor adverse** reducing to **negligible** in the mid-term.

**Consideration of operation stage effects on Identified visual receptor groups**

- 9.6.55 During operation, the following effects are predicted on identified visual receptors:

*Day time and Night time visual effects-During Operation*

- 9.6.56 The assessment of day time and night time visual effects, is summarised in Volume 3 Appendix F.5, and should be read in conjunction with **ES Volume 3, Appendix F.1, Representative Photo viewpoint Figures 9.6a to 9.6zzzzzt** (which include visually verified montages of the proposals).
- 9.6.57 The assessment of the level of visual effect, anticipated for each identified visual receptor/visual receptor group, first includes consideration of the sensitivity of the visual receptor, before then considering the magnitude of effects anticipated, **during operation**. Judgements reached on these two aspects have then been combined to reach a conclusion

on the level of visual effect, in each instance. A narrative is provided in the **Residual effects section 9.7** below to explain the conclusions reached.

- 9.6.58 Where intermediate ratings are given, e.g. “Medium-Low”, this indicates a level that is both less than Medium and more than Low.
- 9.6.59 The visual topic, sensitivity, magnitude and level of effect, example criteria and scales, which have been employed for this project, are provided in the **Tables in ES Volume 3, Appendix F.2. These should be used to interpret the conclusions reached on the summary table.**

## 9.7 Residual Effects

- 9.7.1 Direct effects on landscape resources include the effects of the proposed development on part of the Lutterworth Lowlands and part of the Upper Soar Landscape Character Areas and indirect landscape effects include those on the adjacent High Cross Plateau landscape character area to the west of the A5.
- 9.7.2 All day and night time visual effects are considered to be direct.
- 9.7.3 A summary of the main residual effects and their significance post mitigation and with design measures, during construction and then in the operation stage, is provided below. The anticipated residual significant effects on landscape are dealt with first and this is followed with a summary in respect of visual matters (with anticipated residual night time effects, separated out).

### Construction stage residual effects

#### *Residual Landscape effects*

#### *Zone 1 Part of the application Site to the south east of Mere Lane and within the Lutterworth Lowlands District LCA*

- 9.7.4 During construction and with mitigation measures in place the residual effects on the Zone 1 part of the Site located within the Lutterworth Lowlands LCA, to the south east of Mere Lane, are considered to be **minor adverse on this part of the site itself, negligible on the locality and negligible on the Lutterworth Lowlands district LCA. This is considered to give rise to minor adverse to negligible level of effect, overall.**
- 9.7.5 The construction operations associated with the building of the new road link would relate to small parts, of this part of the Site, but would slightly detract. The mitigation strategy and tree protection measures would enable the sense of place and positive characteristics of this area to generally be conserved and retained. However, the new road construction works do not quite fit with the landscape pattern leading to some permanent localised woodland loss. The influence of the construction activities are confined to the site and its immediate surroundings by the enclosing buildings of Magna Park and Woodland areas to the north, leading to anticipated effects on the locality and the Lutterworth Lowlands district LCA beyond the site that would be negligible.

- 9.7.6 These effects, may be raised as local issues but are unlikely to be of importance in the decision making process. Nevertheless, the scheme design has included vegetation protection measures to limit effects, on the surroundings, to a minimum. Overall, the construction effects on the Zone 1 part of the application Site, to the south east of Mere Lane, within the Lutterworth lowlands are considered to be **not significant**.

*Zone 2 Part of the application Site to the south of Magna Park within the Lutterworth Lowlands District LCA*

- 9.7.7 During construction and with mitigation measures in place, the residual landscape effects on the detailed application scheme within Zone 2 of the application Site, to the south of Magna Park, during construction, are considered to be **moderate adverse, on the Site, minor adverse on the locality and negligible on the Lutterworth Lowlands district LCA. This is considered to give rise to a minor adverse level of effect, overall.**
- 9.7.8 The construction operations associated with building out this site, would, in the context of the site already having consent as a HGV Park, involve the same general activities and construction works but with the construction of one less building (a vehicle maintenance unit). Therefore, the magnitude of effect is deemed to be the same, and resulting in noticeable damage to one and a half fields in the site, as they would be cleared, regraded, surfaced and a building constructed. These new uncharacteristic features would be introduced but within the context of retained boundary planting and ditches, so losses to distinctive landscape features and character would be partial. The effects would be on a site assessed to be of moderate to low value, which, in the absence of the consented HGV Park scheme, would have been considered as being of medium susceptibility to change. The judgement has been made, in this assessment, to downgrade the susceptibility of the site to low in this assessment given the existing committed development, of a very similar type. This has had the effect of reducing the anticipated level of effect on the site, the locality (up to 1.5km) and the district Lutterworth Lowlands LCA (approx. 3%), in which it is located, below that which would have been the case, in the absence of the consented scheme. Whilst the scheme continues to be in some conflict with the farmland character of an undesignated landscape and has some adverse impacts on some characteristic elements on some parts of the site and some localised effects, these are considered moderated to a significant degree by the consented HGV Park which represents the baseline condition.
- 9.7.9 These effects may be raised as local issues but are unlikely to be of importance in the decision making process. Nevertheless, an awareness of the content of the committed development and its land uses and parameters has informed the scheme design during construction, to ensure the same protection is afforded to surrounding landscape elements, in particular the boundary features. Overall, the construction effects on the Zone 2 part of the application Site, to the south of Magna Park, within the Lutterworth Lowlands are considered to be **not significant**.

*Zone 1 Part of the application Site to the north west of Mere Lane within the Upper Soar District LCA*

9.7.10 The residual construction stage effects on the remainder of the Zone 1, part of the Site, to the north-west of and including Mere Lane within the Upper Soar landscape character area are considered under the headings of the two landscape types, which are present.

*Low lying clay vale farmland with gentle ridges landscape type*

9.7.11 During construction and with mitigation measures in place the residual effects on the low lying clay vale farmland with gentle ridges landscape type within the Zone 1 part of the Site, in the Upper Soar LCA, to the north west of Mere Lane, are considered to be moderate to major adverse on this part of the site, moderate adverse on the locality (up to 2km) and moderate adverse on the Upper Soar District LCA (20% approx.). This is considered to give rise to a moderate adverse level of effect, overall.

9.7.12 The initial loss of vegetation, demolition of buildings and earthworks would have a large adverse impact on some characteristic features and elements, within parts of this landscape type, at the Site level. However, the activities proposed in large parts of this landscape type, within the application Site to the north would be restricted to top soil reuse and spreading of circa 1m depth before restoration and seeding of these areas of farmland to meadowland. Otherwise on the application Site, the construction works focus on predominantly large scale arable fields to the south east and west, where some hedgerows, which have been recently restored under an HLS scheme, would be removed, there are also some anticipated limited effects on some older sections of hedgerow, but key historic hedge lines are otherwise avoided. Up to one hundred and eighteen trees would need to be felled (eighty eight of which are category C) across all parts of the Zone 1 application site, but the majority fall within this landscape type and would be removed from some site hedges, alongside the A5 where widening and new junctions are proposed and in a cluster around Bittesby House. Some of these trees and areas of younger woodland affected in the vicinity of Mere Lane would be transplanted to new planting locations. Bittesby House and surrounding cottages would be removed (See Chapter 11 Heritage and Archaeology for a detailed consideration of the effects on these assets). The sense of place in and around the areas affected is already influenced by the existing uses and character of Magna Park alongside and the busy A5 corridor. The creation of terraces for buildings and surrounding servicing areas would have an adverse impact on parts of the gentle sloping topography and existing local ridges in these parts of the site and new building frames and installation cranes would be conspicuous and contrasting elements perceived at close quarters and from parts of the locality, and at variance with the character of the existing landscape. There would also be temporary direct construction stage effects on four permanent rights of way and some permissive routes alongside the A5, due to end in October 2017 and would be some corresponding adverse effects on the enjoyment of these routes for informal recreation.

9.7.13 Therefore, the construction operations are anticipated to degrade and diminish the integrity of some characteristic features and elements and cause some damage to the local distinctiveness of the site and local area. Quite large parts of this landscape type within the site would be effected at the construction stage and the scale of proposed buildings and cranes need to install them would have effects in the surrounding locality (Up to 2km away) and experienced within the Upper Soar district LCA (approx. 20%). However, whilst these effects are in the countryside, they are not located in areas of separation or within or in the



locality of areas of recognised designated landscape, at any level. However, there would be some indirect effects of the works on the setting of the Bittesby Scheduled Monument Site and some limited effects on the settings of other heritage sites in the wider locality (**See Chapter 11** for more details). Visual effects are considered separately elsewhere in this chapter. The works are focussed on parts of the site that are considered to have low levels of tranquillity and where the cultural integrity has been diminished by the conversion of buildings, intensive arable production, works associated with the former Midland Counties Railway, the Bittesby Airfield, the increased traffic along the A5 and some more recent filling/agricultural improvement operations, on land to the west.

- 9.7.14 The construction stage effects including loss of farmland, the earthworks, demolition work, ditch diversions and vegetation removals and building construction, are considered to be **significant** landscape effects, at a site level. The effects on the landscape character of the locality and .at a district level are considered to be **not significant** or likely to be key decision making issues and the effects would not be exacerbated by other cumulative committed developments, or the works in other parts of the application site, within the Upper Soar LCA, given their location and scale. They do however; represent issues where the effects would be experienced. Overall, the effects on landscape character arising from the construction stage works within the low lying clay vale farmland with gentle ridges landscape type and Upper Soar LCA are considered to be **not significant**.

Soar tributary flat floodplains and terrace landscape type

- 9.7.15 During construction and with mitigation measures in place the residual effects on the Soar tributary flat floodplains and terrace landscape type, within the Zone 1 part of the Site, in the Upper Soar LCA, to the north west of Mere Lane, **are considered to be moderate adverse, on this part of the site, moderate to minor adverse on the locality (up to 0.5km) and minor adverse on the Upper Soar District LCA (10% approx)**. This is considered to give rise to a **moderate to minor adverse** level of effect, overall.

The construction operations with direct effects on this landscape type, within the application Site, include the internal access road crossing over the main Soar tributary valley, earthworks (including some land raising ) within some arable and pasture fields associated with the creation of wetlands/attenuation areas, wet woodland planting and grassland habitat creation, would have some localised direct effects causing loss of an existing spinney, a section of a currently open watercourse, and some existing farmland. In addition to avoidance of activity in the most sensitive locations, tree protection fencing, which would also provide buffers and protect the Bittesby Scheduled monument site is the key mitigation measure employed to safeguard the remaining key characteristics and landscape features in this part of the Site, during operation. For further watercourse safeguard measures see Chapter 8 Hydrology. There would be some additional large temporary indirect adverse effects arising from construction operations and the loss of some existing landscape features outside this landscape type, in the Low lying clay vale farmland with gentle ridges landscape type, within the Site which would diminish the sense of place. The construction operations in the Soar tributary flat floodplains and terrace landscape type would be apparent and have some adverse effects in the locality (up to 0.5km) and tis would have a corresponding effect on approximately 10% of the District LCA.



9.7.16 The construction stage, effects including some loss of farmland, some earthworks (including some peripheral land raising and the creation of wetlands/attenuation), the localised construction of a road crossing and some limited vegetation removals, are considered to be **not significant** landscape effects, at a site level, locality and district LCA level. The effects on the landscape character of the site, locality and Upper Soar district LCA are not likely to be key decision making issues despite the effects being exacerbated at a site level by some large indirect construction effects from the adjacent site landscape type. No other cumulative effects from other committed developments in the Upper Soar LCA, are anticipated, given their location and scale. The effects do however represent issues where the effects would be experienced. Overall, the construction stage effects on landscape character, arising from the construction stage works within the Soar tributary flat floodplains landscape type and Upper Soar, are considered to be **not significant**.

*Zone 1 - Part of the application Site to the north of Magna Park*

*Indirect effects on the High Cross Plateau*

9.7.17 The residual indirect effects, during construction, on the High Cross Plateau landscape character area to the west of the A5, arising from works within Zone 1 of the application site, are considered to be **moderate adverse**.

9.7.18 Whilst not affecting a designated landscape, the introduced cranes and building works would have a temporary indirect adverse impact on the perceived open and undeveloped attributes of the High Cross Plateau. The activities and visible structures during construction would be conspicuous and diminish the sense of place from within this area by impacting on the perceived distant skyline in some limited views, from some locations to the north and south of Willey. The perception of the construction works is moderated in some of these views by there already being other built elements, including existing Magna Park and the Manor farm wind turbine forming the back drop and frequent distracting foreground activity along the intervening A5. The loss of some mature trees along the eastern edge of the A5, during road widening works and building works would temporarily detract from the local distinctiveness/positive qualities of one adjacent section of the A5 road corridor, outside the area, but perceived from within the High Cross Plateau. Only small parts of the scene or moderate scale indirect changes would be evident from within a 1-1.5km locality and within up to 5% of the district character area.

9.7.19 These effects while important at a local scale are not likely to be key decision making issues, cumulatively to the north of Magna Park and west of the A5, they impact indirectly on limited parts of the character area and effects on the High Cross Plateau arising from Zone 2, (identified below) are very small scale, in addition, but the effects would be experienced. These indirect landscape character effects, on the High Cross Plateau district LCA, to the west of the A5, to the north of Magna Park, (even with the addition of the Zone 2 effects, explained below), are considered to be **not significant**.

*Zone 2 - Part of the application Site to the south of Magna Park*

*Indirect effects on the High Cross Plateau*

- 9.7.20 The residual indirect effects, during construction, on the High Cross Plateau landscape character area to the west of the A5, arising from works within Zone 2 of the application site, are considered to be **minor adverse**.
- 9.7.21 The opportunity for any indirect effects, during construction, would be limited largely to a visible crane and potentially some vehicles carrying out earthworks. These activities would be temporary and of short duration, and whilst not fitting with the existing character and being at variance with some of the existing perceptible farmland features, the construction activities are anticipated to only effect a small part of the perceived scene, from a small locality (up to 1km) and effect a very small part of the High Cross Plateau district LCA (approx. 2%), to the south of Magna Park and west of the A5.
- 9.7.22 The effects may be raised as local issues but are unlikely to be of importance in the decision making process. These indirect landscape character effects, on the High Cross Plateau district LCA, to the west of the A5, south of Magna Park, are considered to be **not significant**.

*Residual day time - visual effects during construction*

- 9.7.23 The residual, construction stage effects, of the Zone 1 scheme, on visual receptors, in the day time, are anticipated to be the following:

*Zone 1*

- Effects of a **major adverse** level are anticipated to arise, during construction, where there will be some large deterioration, in the existing view, experienced by the following:
  - walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6aiv);
  - walkers on public footpath W92 (Represented by viewpoint 4bii and view 16a);
  - horse riders and walkers on a section (Represented by viewpoints 4cii-4cvi) of the public bridleway W86 south of Claybrooke Parva;
  - horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9a, 9bi);
  - Road users and walkers at the roadside on a section of the A5 further to the north Represented by view 16b and 16c).
- Effects of a **moderate to major adverse** level are anticipated to arise, during construction, where there will be some large to noticeable deterioration, after mitigation, in the existing view, experienced by the following:
  - residents and road users on Woodway Lane (Represented by view 3);
  - walkers on a sections (Represented by viewpoints 4aai and 4aiv) of the public footpath W83 south of Claybrooke Parva and a resident in the vicinity at the White House;
  - walkers on public footpath W92 (Represented by viewpoints 4bi);
  - resident to east of White House Farm (Represented by viewpoints 4bii);
  - visitors to the Ullesthorpe Moat Scheduled Monument (Represented by view 5aai);
  - walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6ai);

- horse riders and walkers on a permissive path to the south west of Ullesthorpe (Represented by view 6b);
  - visitors to the Bittesby Scheduled Monument ( represented by view 7);
  - horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9bii);
  - walkers on a section of footpath east of Willey Fields Farm (Represented by view 15);
  - road users and walkers on footpath W89 at the roadside on a section of the A5 (Represented by view 16d).
- Effects of a **moderate adverse level** are anticipated to arise, during construction, where there will be some noticeable deterioration, after mitigation, in the existing view, experienced by the following:
    - walkers on a sections of the public footpath W83 south of Claybrooke Parva and a resident in the vicinity at the White House(Represented by viewpoints 4aiii);
    - horse riders and walkers on a section (Represented by viewpoints 4ci) of the public footpath W86 south of Claybrooke Parva;
    - visitors to the Ullesthorpe open access land (Represented by view 5aiii);
    - walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6aii and 6aiii);
    - residents on the south eastern edge of Ullesthorpe and road users on the Lutterworth Road.(Represented by view 8ai);
    - visitors to the Ullesthorpe Windmill( Represented by view 8aii and 8aiii);
    - horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9c);
    - residents on the Lutterworth Road.(Represented by view 8b);
    - walkers on sections of footpath to the west of Norwood Farm (Represented by view 13);
    - road users and horse riders on Mere Lane (Represented by views 12a-f)
    - walkers on sections of footpath to the west of Willey.(Represented by view 14a);
    - walkers on a section of footpath to the east of Willey( Represented by view14b);
    - road users Main Road Willey (Represented by Views 14c and 14d);
    - road users and walkers at the roadside on a section of the A5 (Represented by view 16ei and 16eii).
  - Effects of a **moderate to minor adverse** level are anticipated to arise, during construction, where there will be some noticeable and some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
    - walkers on the Leicestershire Round near High Cross Represented by view 1a and 1b);
    - visitors to St Peter's Church (Represented by view 4ai);
    - resident to the south of White House Farm (Represented by view 4bii);
    - road users on the Lutterworth Road (Represented by view 8b);

- walkers and road users on a section of the Ullesthorpe Road South of Ashby Parva (Represented by views 10a and 10b);
- residents Main Road, Willey (Represented by Views 14c and 14d)
- visitors to St Leonard's Church, Willey (Represented by view 14e);
- a resident and road users on a section of the Lutterworth Road (Represented by view 17).
- Effects of a **minor adverse level** are anticipated to arise, during construction, where there will be some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
  - a resident at Claybrooke Grange and road users on a section of the Frolesworth Road (Represented by view 2a and 2b);
  - workers within Magna Park and road users on Argosy Way (Represented by view 11).
- Effects of a **neutral level** are anticipated to arise, during construction, on horse riders on a permissive route alongside Mere Lane as the route will be temporarily diverted away from construction works and on parts of the Ullesthorpe Moat scheduled monument represented by view 5ai.

9.7.24 Some of the day time visual effects, arising from the Zone 1 works, identified above as having major or major to moderate levels of effect, could be considered important considerations at a local scale and would give rise to significant temporary visual effects. These include construction effects on:

- walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6aiv);
- walkers on public footpath W92 (Represented by viewpoint 4bii and view 16a);
- horse riders and walkers on a section (Represented by viewpoints 4cii-4cv) of the public footpath W86 south of Claybrooke Parva;
- horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9a, 9bi);
- Road users and walkers at the roadside on a section of the A5 (Represented by view 16a, 16b and 16c).
- residents and road users on Woodway Lane (Represented by view 3);
- walkers on a sections (Represented by viewpoints 4aii and 4aiv) of the public footpath W83 south of Claybrooke Parva and a resident in the vicinity at the White House;
- walkers on public footpath W92 (Represented by viewpoints 4bi);
- resident to east of White House Farm (Represented by viewpoints 4bii);
- visitors to the Ullesthorpe Moat Scheduled Monument ( Represented by view 5aii);
- walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6ai);
- horse riders and walkers on a permissive path to the south west of Ullesthorpe (Represented by view 6b);
- visitors to the Bittesby Scheduled Monument ( represented by view 7);

- horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9bii);
- walkers on a section of footpath east of Willey Fields Farm (Represented by view 15);
- road users and walkers on footpath W89 at the roadside on a section of the A5 (Represented by view 16d);

The above effects would be important considerations at a local scale and may become key factors in the decision making process. These effects are considered to be **significant**. The other effects whilst important at a local scale are not likely to be key decision making issues or at levels of minor adverse or below unlikely to be of importance in the decision making process. These effects are considered to be **not significant**.

### *Zone 2*

9.7.25 The residual day time visual effects predicted, during construction, arising from the Zone 2 detailed application, visual receptors, are anticipated to be the following:

- Effects of a **moderate adverse level** are anticipated to arise, during construction, where there will be some noticeable deterioration, after mitigation, in the existing view, experienced by the following:
  - road users on the A5 and visitors to the Liberty Hotel (Represented by view 19);
  - horse riders and walkers on Public bridleway X32 from alongside Moorbarns(Represented by view 20);
  - road users and workers on the A4303 looking south (Represented by view 22).
- Effects of a **minor adverse level** are anticipated to arise, during construction, where there will be some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
  - road users on the Lutterworth Road (Represented by view 18);
  - horse riders and walkers on Public bridleway X32 near Moorbarns Lane (Represented by view 21).

9.7.26 The visual effects on road users on the A5, horse riders and walkers on a section of bridleway X32 near Moorbarns and road users and workers on or near the A4303 , in the day time , during construction of the Zone 1 scheme, while important at a local scale are not likely to be a key decision making issue. The other effects listed from the Lutterworth Road and bridle way X32 near Moorbarns Lane, may be raised as a local issue but are unlikely to be of importance in the decision making process. All the visual effects arising from the Zone 2 scheme, in the day time, during construction are considered to be **not significant**.

### *Residual night time-visual effects*

9.7.27 The residual construction stage lighting effects, following mitigation, on Zone 1 visual receptors, at night, are anticipated to be the following:

#### Zone 1

- Effects of a **moderate adverse level** are anticipated to arise, during construction, where there will be some noticeable deterioration, after mitigation, in the existing night time view, experienced by the following:
  - road users on the section of the A5 (represented by View 16b) where the road widening and where new junctions are proposed.
- Effects of a **minor to moderate adverse level** are anticipated to arise, during construction, where there will be some noticeable and some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - residents on Woodway Lane (Represented by View 3).
- Effects of a **minor adverse level** are anticipated to arise, during construction, where there will be some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - the community of Willey - from Main Road (Represented by views 14c and 14d).
- Effects of a **minor adverse to negligible level** are anticipated to arise, during construction, where there will be some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - the community of Ullesthorpe (Represented by view 8ai);
  - the community of Claybrooke Parva (Represented by view 4aii).
- Effects of a **neutral level** are anticipated to arise, during construction, at night, on the community of Willey arising from A5 widening temporary lighting (represented by Viewpoint 16b).

9.7.28 The visual effects on road users on the A5 and residents on Woodway Lane, at night, during construction of the Zone 1 scheme, while important at a local scale are not likely to be a key decision making issue. The other effects listed above, may be raised as a local issue but are unlikely to be of importance in the decision making process. All the visual effects arising from the Zone 1 scheme, at night, during construction are considered to be **not significant**.

#### Zone 2

9.7.29 The residual construction stage lighting effects, following mitigation, on Zone 2 detailed application, visual receptors, at night, are anticipated to be the following:

- Effects of a **minor adverse level** are anticipated to arise, during construction, where there will be some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - road users on the edge of A5 by the Liberty Hotel (Represented by view 19).

9.7.30 The visual effects on road users, at night, during construction of the Zone 2 scheme, may be raised as a local issue but are unlikely to be of importance in the decision making process. These effects are considered to be not significant

## Operational stage residual effects

### *Residual Landscape effects during operation*



*Zone 1 Part of the application Site to the south east of Mere Lane and within the Lutterworth Lowlands District LCA*

- 9.7.31 During operation and with mitigation measures in place the residual effects on the Zone 1 part of the Site located within the Lutterworth Lowlands LCA, to the south east of Mere Lane, are considered to be **minor adverse on this part of the Site, itself, negligible on the locality and negligible on the Lutterworth Lowlands district LCA. This is considered to give rise to a minor adverse to negligible level of effect, from year of opening, onwards, overall.**
- 9.7.32 The new road in this part of the scheme and the newly installed bio discs do not quite fit with the character landscape and are at variance with positive characteristic features and elements of the wider Lutterworth Lowlands and would slightly detract from local distinctiveness, however, the effects would be small scale and limited to three small sections of recently planted woodland and an area of rough grassland which appears to have been created at the time of the land being utilised for an airfield in 1939. This landscape receptor area is in a place where the context is dominated by surrounding buildings, their service yards and an existing service farm with settlement ponds.
- 9.7.33 These effects they may be raised as local issues but are unlikely to be of importance in the decision making process. Overall, the operation stage effects on the Zone 1 part of the application Site, to the south east of Mere Lane, within the Lutterworth lowlands are considered to be **not significant.**

*Zone 2 Part of the application Site to the south of Magna Park within the Lutterworth Lowlands District LCA*

- 9.7.34 During operation and with mitigation measures in place, the residual landscape effects on the detailed application scheme within Zone 2 of the application Site, to the south of Magna Park, are considered to be **moderate adverse, on the Site, minor adverse on the locality (1.5km), reducing to negligible in the mid-term (0.5km) and minor to negligible (approx. 3%) reducing to negligible on the Lutterworth Lowlands district LCA (approx. 1%), in the mid-term. This is considered to give rise to a minor adverse level of effect reducing to minor adverse to negligible in the mid-term, overall.**
- 9.7.35 Given the committed HGV Park development on this part of the Site, despite the effects on the site continuing to be high from the proposed development in operation, the level of effect has been moderated due to an identified lower level of Site susceptibility to the form of development proposed. Otherwise, during operation, the site would be occupied with one less building (the vehicle maintenance unit), but would have some changes uses, notably, storage containers stacked two high (to 5.9m) in the lower part of the site in the place of HGV parking, fuel islands and wash areas. A car parking area in the north east corner would be replaced with a vehicle training area. There would also be a slight increase in the number of lighting columns required. A mobile forklift with a raising arm extending up to 10m would be used to lift containers onto vehicles. In the short term, the operational scheme would be perceived in the locality up to 1.5km away to the south east which equates to approximately 3% of the Lutterworth Lowlands district LCA. As the new woodland planting belt of 25m width establishes on installed banks to the south-eastern boundaries of the application Site and hedge and native woodland mixed planting (ranging from 7-10 to 10-15m wide) on the western

northern boundaries develops, together with some tree planting on the north eastern boundary (as proposed) in the mid-term, the containers, parking and training areas of the site would become effectively contained by the density of planting, even in winter. Some filtered views to intermittent lifting operations, the tops of lighting columns and the gateway building are likely to persist in near views, in winter, beyond this time, but would be seen in the context of existing larger buildings, their lighting and lighting along the A4043. Therefore, the anticipated indirect effects on the landscape character of the locality is anticipated to reduce to 0.5km and on the Lutterworth Lowlands district LCA to approximately 1% of the area, by the mid-term.

- 9.7.36 These effects may be raised as local issues but are unlikely to be of importance in the decision making process. Nevertheless, an awareness of the content of the committed development and its land uses and parameters has informed the scheme design during operation, to ensure the same landscape design measures and building parameters are incorporated and any changes sensitively accommodated. Overall, the operation stage effects on the Zone 2 part of the application Site, to the south of Magna Park, within the Lutterworth Lowlands are considered to be **not significant**.

*Zone 1 Part of the application Site to the north-west of Mere Lane within the Upper Soar District LCA*

*Low lying clay vale farmland with gentle ridges landscape type*

- 9.7.37 During operation and with mitigation measures in place the residual effects on the low lying clay vale farmland with gentle ridges landscape type within the Zone 1 part of the Site, in the Upper Soar LCA, to the north west of Mere Lane, are considered to be **moderate to major adverse on this part of the Site, in the short term reducing to moderate adverse in the medium term, moderate adverse on the locality (up to 1.5km) and moderate reducing to moderate to minor adverse on the Upper Soar District LCA (17% approx). This is considered to give rise to a moderate adverse level of effect, reducing to a moderate to minor adverse effect, in the mid- term, overall.**
- 9.7.38 The operational logistics site and buildings, new road accesses including from the A5 and a widened A5 with establishing landscape infrastructure would be at considerable variance with the original character of this part of the Site and would detract from the sense of place in parts of the locality up to 1.5km, and within 17% of the district LCA in the short term, given that this part of the Site is currently open rolling farmland, which has in part been subject to some landscape and ecological hedgerow and shore restoration under a Higher Level Countryside Stewardship Scheme (HLS). However, the effects are focussed predominantly on gently sloping large arable fields which have also suffered from the effects of agricultural intensification, resulting in past loss of ridge and furrow and historic hedgerows. The historical integrity of the fields affected in this part of the Site alongside Magna Park and round Bittesby House was also degraded when Mere Lane was introduced in 1939 which caused further fragmentation of these existing fields and the Bittesby House estate. With the exception of small areas, and the removal of Bittesby House and surrounding buildings (See Chapter 11 Heritage and Archaeology for further details), the remaining peripheral field boundaries and the majority of the planting implemented under the HLSS have been avoided and are proposed to be conserved and enhanced . Some areas of lost field patterns to the north west

within areas of retained farmland, are being reinstated, as part of the proposals, enabling a sense of place or local distinctiveness to be restored there. More steeply sloping fields, a local ridge and land forming the immediate context to the Bittesby Scheduled monument would be converted to meadow land, which was a previous land-use and which would provide better protection for identified buried archaeological deposits (See Chapter 11 Heritage and archaeology for more details).

- 9.7.39 Replacement planting alongside the A5 after widening, would include the planting of native hedgerows and trees alongside a wide grass verge and this would restore a distinctive roadside landscape pattern where currently there are only scattered trees. Establishing woodland belts that positively contribute to the immediate context along Mere Lane have also largely been avoided. There is identified potential to transplant some trees and re use them where they would aid the assimilation of the new buildings and new roundabout junction on Mere Lane. The colouring of building facades, arrangement of parcels, restrictions on building heights, the parameters included to focus the location of yards and activity away from more tranquil areas and surrounding villages and residents, the focussing of buildings in the least tranquil areas of this part of the site, the location of parcels in areas that generally minimize the removal of existing features and new structure planting belts in forms and locations that would enhance containment whilst reinforcing some locally distinctive landscape features, all have reduced the potential levels of effect, during operation. In addition, the existing rights of way network would be restored, some permissive routes made permanent and new routes created to enhance the networks and connectivity with the Magna Park Wood and surrounding villages. The detail of these reinstatements and improvements would be developed in subsequent reserved matters applications so that the scheme would deliver circular routes and a positive and enhanced recreational experience, aligned with establishing habitat and wetland area proposals in the proposed Bittesby Country Park. The enhancement to the setting of the reinstated and new access routes, within the application site is anticipated to take until the mid- term, to become fully effective.
- 9.7.40 Overall, the landscape masterplan vision for the new logistic park site would play a key role in counter balancing the anticipated adverse effects with positive landscape and recreation enhancements. The landscape masterplan and future management plan for the Site and Bittesby Country Park would also further the higher level landscape character objectives contained within the '*Statement of Environmental Opportunity*' contained with the National Landscape Character Profile 94 for the Leicestershire Vales and many of the identified landscape objectives within published landscape character guidelines at a more local level, whilst, delivering a sustainable development.
- 9.7.41 In the shorter term, some of the above measures, in combination with building and yard terraces that are set down and benched into the gently sloping fields, with roll over banks on the edges facing north and east would deliver some instant containment to activities around buildings, whilst planting establishes. Otherwise, in the mid-term, despite some permanent adverse changes to the character of this part of the Upper Soar and Site, there would also be some counter balancing improvements to local landscape character arising within this part of the site and arising from the proposal. Where there are impacts, these have been mitigated where possible to reduce effects, in particular on the surrounding locality and on the district

LCA. However, despite the incorporation of the above measures there would continue to be some larger scale long term adverse impacts, on the Site arising from the adjusted landform, new buildings and yards, at the scale proposed and activity which would replace arable farmland. It would take until the mid-term for the buildings to become more effectively assimilated within a new logistics park landscape and for effects on the locality and district LCA to noticeably reduce and some lower level effects would remain over the long term.

- 9.7.42 The operation stage effects including, new building, parcels at various sizes, areas for yards, offices and parking, new road infrastructure and landscape infrastructure measures are considered to be **significant** landscape effects, at a site level, in the opening and early years before becoming **not significant** in the mid-term, once the new landscape infrastructure and Bittesby Country Park becomes more established. The effects on the landscape character of the locality and at a district level would include some effects that continue to be adverse but are considered to be **not significant** or likely to be key decision making issues. These effects would not be exacerbated by other cumulative committed developments, or the scheme, as proposed, on other parts of the application site within the Upper Soar district LCA, given their location and scale. They do however represent issues where the effects would be experienced. Overall, the effects on landscape character arising from the operation stage scheme within the low lying clay vale farmland with gentle ridges landscape type and Upper Soar LCA are considered to be **not significant**.

*Soar tributary flat floodplains and terrace landscape type*

- 9.7.43 During operation and with mitigation measures in place the residual effects on the Soar tributary flat floodplains and terrace landscape type, within the Zone 1 part of the Site, in the Upper Soar LCA, to the north west of Mere Lane, **are considered to be moderate adverse at a site level, minor reducing to minor to negligible adverse in the mid-term, on the locality (a reduced part of up to 0.5km) and minor adverse reducing minor to negligible adverse on the Upper Soar District LCA (6% approx.)**. This is considered to give rise to a **moderate to minor adverse** level of effect reducing to **minor adverse** in the mid-term, overall.
- 9.7.44 During operation, the retention of riverine corridors, associated tree and shrub planting, woodland and grassland habitats along the embankment, watercourses the grazing areas associated with the Bittesby scheduled monument, areas of recently created scrapes and diverse field boundary grassland shores would provide a strong framework around which the additional wetland areas created for attenuation and wildlife would provide complimentary habitat and enhanced amenity along retained and new access routes. The road crossing over the main tributary near the A5 would avoid obstruction of the corridor and movement of wildlife. The raising of some land, formerly arable and pasture would allow some wetland attenuation areas to be introduced without the need to impact on any buried archaeology and would enable its conservation, rather than it being under threat from intensive arable farming practices. These measures, the creation of Bittesby Country Park and a commitment to managing this landscape for wildlife, recreation and heritage would conserve and enhance key features in this landscape type. It is recognised that the setting of this part of the Soar Valley would change from farmland to a logistics park with some adverse effects in terms of loss of key characteristics of the Upper Soar, visible buildings and some new road infrastructure,

however, the siting of roads away from the wetland corridor, avoidance of yards alongside the Soar valley tributaries, a sensitive lighting strategy and new planted banks and areas of wet woodland combine to reduce adverse effects. The measures with the established structure planting and habitats in the mid-term would largely off-set the impacts which largely relate to the setting of this area rather than direct effects.

- 9.7.45 The operation stage, effects including an operational road crossing, some new buildings and activity, outside this landscape type, but forming part of its visual context, establishing wet land and habitat enhancement measures, a managed Bittesby Country Park, additional wet woodland and grassland habitat and attractive and permanent additional and former permissive, access routes for pedestrians, cyclists, horse riders and walkers. The effects of these are considered to include some adverse but **not significant** landscape effects, at a Site, locality and district LCA level. The effects on the landscape character of the site, locality and Upper Soar district LCA are not likely to be key decision making issues and the effects would be slightly exacerbated by the indirect effects of the buildings and intermittent activity on the internal road, in the shorter term, at a Site level, but not exacerbated by other cumulative committed developments in the Upper Soar LCA, given their location and scale. They do however; represent issues where the effects would be experienced. Overall, the operation stage effects on landscape character, arising from the operation stage works within the Soar tributary flat floodplains landscape type and Upper Soar, are considered to be **not significant**.

*Zone 1 - Part of the application Site to the north-west of Mere Lane*

*Indirect effects on the High Cross Plateau*

- 9.7.46 The residual indirect effects, during operation, on the High Cross Plateau landscape character area to the west of the A5, arising from works within Zone 1 of the application site, are considered to be **moderate adverse, reducing to minor to moderate adverse in the mid-term**.
- 9.7.47 In the operation stage and whilst not affecting a designated landscape, the introduced new buildings, within the Zone 1 Site, alongside the A5 would be noticeable from within a locality of up to 1.5km, to the west of the A5 and effecting approximately 5% of the High Cross Plateau district LCA. The building parcels have been spaced to allow some longer views between them and are proposed to be set down on the application site up to 5m below the A5 corridor and back from the boundary by minimum of 50m. As farm buildings, structures, woodland copses and the A5 traffic in places also intervenes in any longer distance views, the indirect effects of new buildings would be partial and the effects of associated activities around the buildings and on internal roads concealed by the topography, from view. The colouring of the upper parts of building facades to blend with the sky would also assist the effective integration of new buildings into the scene where they would be against the skyline. In other places new buildings would be seen against the backdrop of the existing buildings on the edge of Magna Park. New planting belts in the form of shelter belts, which are already a feature in this part of the High Cross Plateau are utilised in the Zone 1 scheme design to provide strengthening of the edge planting along the A5, to provide further visual containment to the set down buildings, in addition to contributing a distinctive element to reinforce the sense of place. At the same time longer views are still maintained along and across the Soar valley component



of the Zone 1 Site and opposite houses on the edge of Willey village. Alongside the A5 road widening part of the scheme, wide grass verges would be maintained, characteristic native road side hedges introduced and native spinney planting added behind to reinforce the containment of the Zone 1 site further south, whilst also contributing a distinctive roadside boundary treatment. With the above measures established in the mid-term, some new structures would continue to be evident in the landscape setting of this part of the High Cross Plateau, however, their impact on long views and the perception of an undeveloped surrounding landscape would be small and only effect short sections of footpaths and accessible places in the area, Whilst there would be some adverse impacts in the shorter term these would be reduced and features added to the scene that complement the character of the adjoining area whilst maintaining a depth of view and avoiding interruption of long views where they matter and can be perceived most.

- 9.7.48 These effects while important at a local scale are not likely to be key decision making issues. Cumulatively to the north of Magna Park and west of the A5, they impact indirectly on limited parts of the character area and effects on the High Cross Plateau arising from Zone 2, (identified below) are very small scale, in addition, but the effects would be experienced. These indirect landscape character effects, on the High Cross Plateau district LCA, to the west of the A5, to the north of Magna Park, (even with the addition of the Zone 2 effects, explained below), are considered to be **not significant**.

*Zone 2 - Part of the application Site to the south of Magna Park*

*Indirect effects on the High Cross Plateau*

- 9.7.49 The residual indirect effects, during operation, on the High Cross Plateau landscape character area to the west of the A5, arising from works within Zone 2 of the application site, are considered to be **minor adverse, reducing to negligible in the mid-term**.
- 9.7.50 The opportunity for any indirect effects, during operation, would be limited largely in the opening year and shorter term to some glimpses through existing A5 road side trees, in winter where some lorry movements and parking activity and the new gateway building is likely to be barely perceptible, but visible nevertheless. As the new boundary hedgerow along the western edge of the site and the woodland planting on a new bank on the southern boundary of the site become established, their height and density would be such that these views and any potential perceived indirect effects, on the character of the adjacent very localised part of the High Cross Plateau would become obstructed due to the density and height of the vegetation. The lighting fittings proposed in the detailed application would strictly control the potential for any spill and glare effects outside the site, to other area. The operational scheme, which would also include containers stacked two high to 5.9m in the lower part of the site and a forklift with an intermittently rising reach, to 10m, are anticipated to only effect a small part of the perceived scene, from a small locality (up to 1km) and effect a very small part of the High Cross Plateau district LCA (approx. 2%), to the south of Magna Park and west of the A5.
- 9.7.51 These effects may be raised as local issues but are unlikely to be of importance in the decision making process. In the mid-term the effects of the Zone 2 scheme, are anticipated to have an effect that would be beneath the level of perception. These indirect landscape



character effects, on the High Cross Plateau district LCA, to the west of the A5, south of Magna Park, are therefore considered to be **not significant**.

*Residual day time - visual effects during operation*

9.7.52 The residual operation stage effects of the Zone 1 scheme, following mitigation, on visual receptors, in the day time, are anticipated to be the following:

*Zone 1*

- Effects of a **major adverse** level are anticipated to arise, during operation, where there will be a large deterioration, in the existing view, experienced by the following:
  - walkers on public footpath W92 (Represented by viewpoint 4bii and 16a), reducing to major to moderate to in the mid-term and to moderate in the long term;
  - walkers on the section of Footpath W89 south of Ullesthorpe (Represented by View 6aiv) reducing to moderate in mid-term;
  - road users and walkers at the roadside on a section of the A5 (Represented by view 16b and 16c), reduces to moderate in the mid-term.
- Effects of a **moderate to major adverse** level are anticipated to arise, during operation, where there will be some large to noticeable deterioration, after mitigation, in the existing view, experienced by the following:
  - residents and road users on Woodway Lane (Represented by view 3) reducing to moderate in the mid-term;
  - resident to east of White House Farm (Represented by viewpoints 4bii) reducing to moderate in the mid-term;
  - horse riders and walkers on a section (Represented by viewpoints 4cv-4cvi) of the public bridleway W86 south of Claybrooke Parva, at the far western end. However, the effects in the mid-term would be subject to the detailed design of the Magna Park Hub parcel) ;
  - walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6ai) reducing to moderate in the mid-term;
  - visitors to the Bittesby Scheduled Monument( represented by view 7) reducing to moderate in mid-term from the 'worst case' locality, within the monument site. Visual effects on the monument site are considered to be minor to moderate adverse, overall, when assessed for the complete scheduled monument site, in the mid-term;
  - horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9a, 9bi). Note: There may be potential to reduce these effects further by introducing further hedge and tree planting along the route to the east, subject to ongoing buried archaeology trial trenching investigations. However, this cannot be confirmed as deliverable at the current time;
  - road users at the roadside on a section of the A5 (Represented by view 16d) reducing to moderate in the mid-term.

- Effects of a **moderate adverse level** are anticipated to arise, during operation, where there will be some noticeable deterioration, after mitigation, in the existing view, experienced by the following:
  - walkers on a sections (Represented by viewpoints 4a<sub>ii</sub>) of the public footpath W83 south of Claybrooke Parva and a resident in the vicinity at the White House;
  - visitors to the Ullesthorpe open access land (Represented by view 5a<sub>iii</sub>);
  - walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6a<sub>ii</sub> and 6a<sub>iii</sub>);
  - horse riders and walkers on a permissive path to the south west of Ullesthorpe (Represented by view 6b) reducing to minor to moderate in mid-term;
  - residents on the south eastern edge of Ullesthorpe and road users on the Lutterworth Road.(Represented by view 8a<sub>i</sub>) reducing to minor in the mid-term;
  - resident on the Lutterworth Road (Represented by view 8b);
  - horse riders on Mere Lane (Represented by views 12a-f);
  - walkers on a section of footpath to the east of Willey( Represented by view 14b) reducing to moderate to minor in the mid-term;
  - road users Main Road Willey (Represented by Views 14c and 14d);
  - walkers on a section of footpath east of Willey Fields Farm (Represented by view 15) reducing to moderate to minor adverse in the mid-term;
  - road users and walkers at the roadside on a section of the A5 (Represented by view 16e<sub>i</sub> and 16e<sub>ii</sub>) reducing to moderate to minor in the mid-term.
  
- Effects of a **moderate to minor adverse** level are anticipated to arise, during operation, where there will be some noticeable and some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
  - visitors to St Peter's Church (Represented by view 4a<sub>i</sub>);
  - walkers on a sections (Represented by viewpoints 4a<sub>iii</sub> and 4a<sub>iv</sub>) of the public footpath W83 south of Claybrooke Parva and a resident in the vicinity at the White House;
  - walkers on public footpath W92 (Represented by viewpoints 4b<sub>i</sub>);
  - horse riders and walkers on a section (Represented by viewpoints 4c<sub>i</sub>) of the public footpath W86 south of Claybrooke Parva;
  - horse riders and walkers on a section (Represented by viewpoints 4c<sub>ii</sub>-4c<sub>iv</sub>) of the public footpath W86 south of Claybrooke Parva reducing to minor adverse in the mid-term;
  - visitors to the Ullesthorpe Moat Scheduled Monument ( Represented by view 5a<sub>ii</sub>), reducing to minor in the mid-term following the further establishment of existing and some new vegetation;
  - visitors to the Ullesthorpe Windmill( Represented by view 8a<sub>ii</sub> and 8a<sub>iii</sub>);
  - road users on the Lutterworth Road (Represented by view 8b);

- horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9bii);
  - horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9c);
  - road users on Mere Lane (Represented by views 12a-f);
  - walkers on sections of footpath to the west of Norwood Farm (Represented by view 13) reducing to minor in mid-term;
  - walkers on sections of footpath to the west of Willey.(Represented by view 14a) reducing to minor in mid-term;
  - residents Main Road, Willey (Represented by Views 14c and 14d);
  - visitors to St Leonard's Church, Willey (Represented by view 14e) reducing to minor in mid-term;
  - a resident and road users on a section of the Lutterworth Road (Represented by view 17), reducing to minor adverse in the mid-term.
- Effects of a **minor adverse level** are anticipated to arise, during operation, where there will be some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
    - walkers on the Leicestershire Round near High Cross Represented by view 1a and 1b);
    - a resident at Claybrooke Grange and road users on a section of the Frolesworth Road (Represented by view 2a and 2b);
    - resident to the south of White House Farm (Represented by view 4bii);
    - walkers and road users on a section of the Ullesthorpe Road South of Ashby Parva (Represented by views 10a and 10b);
    - workers within Magna Park and road users on Argosy Way (Represented by view 11).
  - Effects of a **neutral level** are anticipated to arise, during operation, on parts of the Ullesthorpe Moat scheduled monument (Represented by view 5ai).

9.7.53 Some of the operation stage effects, identified above, as having major or major to moderate levels of effect could be considered important considerations at a local scale and would give rise to significant visual effects in the opening year and shorter term. In the case of an 800m section of footpath W92 (Represented by View 4bi and view 16a) approaching the A5, the visual effects on a proposed diverted course, for this part of the route, would continue to be significant until the long term. The effects on:

- walkers on the section of Footpath W89 south of Ullesthorpe (Represented by View 6aiv);
- road users and walkers at the roadside on a section of the A5 further to the north Represented by view 16b and 16c).
- residents and road users on Woodway Lane (Represented by view 3);
- resident to east of White House Farm (Represented by viewpoints 4bii);

- horse riders and walkers on a section (Represented by viewpoints 4cv-4cvi) of the public footpath W86 south of Claybrooke Parva, where it meets the A5 at the far western end;
- walkers on sections of Footpath W89 south of Ullesthorpe (Represented by View 6ai)
- visitors to the Bittesby Scheduled Monument( represented by view 7) from the worst case, locality, within the monument site .
- horse riders and walkers on sections of the bridleway W88 between Willey and Chuckey Hall (Represented by view 9a, 9bi);
- road users at the roadside on a section of the A5 (Represented by view 16d);

are anticipated to be significant visual effects in the opening year and shorter term but would become **not significant** visual effects, in the mid-term, once a positive new landscape setting for the routes and the landscape masterplan for the application Site has had time to establish. Those day time visual effects classified with a moderate level of significance, while important at a local scale are not likely to be key decision making issues but represent issues that would be experienced. Those classified as minor adverse effects may be raised as local issues but are unlikely to be of importance in the decision making process.

### *Zone 2*

9.7.54 The residual day time visual effects predicted, during operation, arising from the Zone 2 detailed application, visual receptors, are anticipated to be the following:

- Effects of a **moderate adverse level** are anticipated to arise, during operation, where there will be some noticeable deterioration, after mitigation, in the existing view, experienced by the following:
  - road users on the A5 and visitors to the Liberty Hotel (Represented by view 19), in winter, from intermittent activity arising from raising of lifting gear on forklift trucks;
  - horse riders and walkers on Public bridleway X32 from alongside Moorbarns(Represented by view 20), reducing to minor adverse in mid-term;
  - road users and workers on the A4303 looking south (Represented by view 22) reducing to minor adverse in the mid-term.
- Effects of a **minor adverse level** are anticipated to arise, during operation, where there will be some barely perceptible deterioration, after mitigation, in the existing view, experienced by the following:
  - road users on the Lutterworth Road (Represented by view 18) reducing to minor adverse to negligible in the mid-term;
  - horse riders and walkers on Public bridleway X32 near Moorbarns Lane (Represented by view 21) reducing to minor to negligible in the mid-term.

9.7.55 The moderate adverse level effects identified above while important at a local scale are not likely to be key decision making issues but represent issues that would be experienced. Some views from the A5 would continue to be noticeable over the long term, other views would all become barely perceptible by the mid-term and/or may be raised as local issues but are unlikely to be of importance in the decision making process. The effects are considered to be **not significant**.

*Residual night time-visual effects during operation*

9.7.56 The residual operation stage lighting effects, following mitigation, on Zone 1 visual receptors, at night, are anticipated to be the following:

*Zone 1*

- Effects of a **moderate adverse** level are anticipated to arise, during operation, where there will be some noticeable deterioration, after mitigation, in the existing night time view, experienced by the following:
  - road users on the section of the A5 (represented by View 16b) where the road widening and where new junctions are proposed;
  - road users from Main Road, Willey (Represented by view 14c and 14d) reducing to moderate to minor adverse in the mid-term;
  - the community of Willey - from Main Road ( Represented by view 14c and 14d) reducing to minor to moderate in the mid-term;
- Effects of a **minor to moderate adverse** level are anticipated to arise, during operation, where there will be some noticeable and some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - the community of Willey (Represented by view 16d), reducing to minor in the mid-term
  - road users on the A5 ( Represented by view 16b) reducing to minor in the mid-term.
- Effects of a **minor adverse** level are anticipated to arise, during operation, where there will be some barely perceptible deterioration, after mitigation, in the existing night time view, experienced by the following:
  - residents and road users on Woodway Lane (Represented by view 3);
  - the community of Ullesthorpe (Represented by view 8ai) reducing to neutral in short term, once existing Magna Park enhancements implemented.
- Effects of a **neutral level** are anticipated to arise, during operation, at night, on the community of Willey arising from A5 widening temporary lighting (as represented at view 16b) and in terms of sky glow effecting the community of Claybrooke Parva (Represented by View 4aii).

9.7.57 The effects on road users while important at a local scale are not likely to be key decision making issues but represent issues that would be experienced. Other effects may be raised as local issues but are unlikely to be of importance in the decision making process or the effects will be beneath the level of perception. The effects are considered to be **not significant** with mitigation measures and Section 106 artificial lighting commitments, for improvements to the exiting Magna Park, in place.

*Zone 2*

9.7.58 The residual operation stage lighting effects, following mitigation, on Zone 2, visual receptors, at night, are anticipated to be the following:

- Effects of a **moderate adverse** level are anticipated to arise, during operation, where there will be some noticeable deterioration, after mitigation, in the existing night time view, experienced by the following:
  - road users on the edge of A5 by the Liberty Hotel (Represented by view 19), reducing to moderate to minor adverse in the mid-term.

9.7.59 The effects on road users while important at a local scale are not likely to be key decision making issues but represent issues that would be experienced. In the mid-term, effects may be raised as local issues but are unlikely to be of importance in the decision making process or the effects will be beneath the level of perception. The effects are considered to be **not significant** with mitigation measures in place and Section 106 artificial lighting commitments, for improvements to the exiting Magna Park, in place.

## 9.8 Cumulative Effects

9.8.1 Cumulative effects result from the combined effects of multiple developments. Cumulative effects can be defined in generic terms as impacts that result from incremental changes brought by other past, present and reasonably foreseeable future projects.

9.8.2 **Table 9.5**, below, indicates the other projects in the area that have been reviewed to assess if potential cumulative effects on landscape character of visual amenity would arise.

**Table 9.5 Cumulative landscape and visual effects - Additional developments taken into account (including those identified in Appendix C of the HDC Scoping Opinion See ES Volume 3, Appendix F.4)**

App. Number	Location	Description	Distance from Site	Decision /Date	Status
15/00865/OUT	Land Adj Glebe Farm Coventry Road Lutterworth	Outline application for the erection of up to 278,709sqm of Storage, Distribution buildings (B8) with ancillary B1(a) offices, creation of access onto A4303 and emergency services only access onto A5, formation of a Lorry Park, creation of SuDS facilities and other associated infrastructure and the demolition of Glebe Farmhouse (Means of access only to be considered).	1.9km		*Sensitivity test requested  Application registered 5th June 2015
15/00471/FUL	Plot 2110, Magna Park (Former George site)	Erection of a 16,723sqm distribution warehouse with ancillary offices, parking areas and landscaping	0.3km		Resolution to grant permission secured on 28 <sup>th</sup> July, subject to S106
13/01539/FUL	<b>Land off Dunton Road, Broughton Astley, Leicestershire</b>	Full planning permission for the erection of 24 dwellings with	7km	Allowed at appeal (Appeal	



		associated vehicular access, pedestrian links, garages, hardstanding, parking, landscaping and drainage (revised scheme of 13/00688/FUL), in accordance with application ref: 13/01539/FUL, dated 11 October 2013		B) 20.03.20 15	
12/04597/OUT	<b>Site at land south of Hallbrook Primary School, Crowfoot Way, Broughton Astley</b>	Outline planning permission for the erection of 111 dwellings, a sports hall, a neighbourhood centre, sports pitches and associated parking, open space, access and landscaping	7km	Allowed at appeal, called in by Secretary of State and approved 17/04/2014	Unimplemented
2009/1488/03	<b>Sutton Lodge Farm Frolesworth Road Broughton Astley Leicestershire LE9 6PG</b>	Application for the erection of an anaerobic digestion facility with associated infrastructure and landscaping	7km north	Approved –22/10/10	Unimplemented
R11/0699	<b>Rugby Radio Station A5 Watling Street Rugby Warwickshire CV23 0AQ</b>	Outline application for an urban extension to Rugby for up to 6,200 dwellings together with up to 12,000sq.m retail (A1), up to 3,500sq.m financial services (A2) and restaurants (A3 - A5), up to 3,500sq.m for a hotel (C1), up to 2,900sq.m of community uses (D1), up to 3,100sq.m assembly and leisure uses (D2), 31 hectares (up to 106,000sq.m) of commercial and employment space (B1, B2 and B8), and ancillary facilities; a mixed use district centre and 3 subsidiary local centres including retention and re-use of the existing buildings known as 'C' Station (Grade II listed), 'A' Station and some existing agricultural buildings; a secondary school and 3 primary schools; public art; green infrastructure including formal and informal open space and amenity space; retention of existing hedgerows, areas of ridge and furrow and grassland; new woodland areas, allotments and areas for food production, wildlife corridors; supporting infrastructure	8km south	Approved – 21/5/14	Unimplemented

		(comprising utilities including gas, electricity, water, sewerage, telecommunications, and diversions as necessary); sustainable drainage systems including ponds, lakes and water courses; a link road connecting the development to Butlers Leap, estate roads and connections to the surrounding highway, cycleway and pedestrian network; ground remodelling; any necessary demolition and any ground works associated with the removal of any residual copper matting, with all matters reserved for future determination except the three highway junctions on the A428, the two junctions on the A5 and the link road junctions at Butlers Leap and Hillmorton Lane.			
<b>Daventry International Rail Freight Terminal DCO</b>	<b>Daventry International Rail Freight Terminal</b>	Construction of Rail Freight Interchange and extension to existing Rail Freight Interchange (DIRFT).	12km south	Approved by SoS 3/7/14	Unimplemented
13/01223/REM	Leaders Farm Coventry Road , Lutterworth, Leicestershire LE17 4JF	Erection of 130 dwellings, creation of a cemetery and provision of associated infrastructure including public open space (reserved matters of 12/00900/OUT)	2.2km	Approved 6/11/13	Under Construction
<b>R11/0114</b>	<b>Cawston Extension Site Coventry Road Cawston Rugby Warwickshire</b>	Outline application for residential development (up to 600 dwellings, use class C3), new accesses to Coventry Road and Trussell Way, open space, associated infrastructure and ancillary works (access not reserved).	11km south	Approved – 1/4/14	Unimplemented
<b>R10/1272 And R13/2311 etc</b>	<b>Rugby Gateway, Leicester Road Rugby, Warwickshire</b>	Outline application for residential development (up to 1300 units); employment development (up to 36ha in total, B2 – General Industrial & B8 – Storage & Distribution); community facilities (D1 – Non-residential Institutions) including primary school, nursery and health facility, retail premises (A1 – Retail, A3 – Food	7.36km south	Approved – 20/8/13 Subsequent reserved matters applic approved	Under construction

		& Drink, A4 – Drinking Establishments & A5 - Hot Food Takeaway); open space; associated infrastructure and works including details of access into site (including alterations to highway and existing roundabouts). Demolition of existing buildings.			
10/00518/OUT & 12/00698/REM	<b>Land Bounded By The Ashby Canal, Railway Line and Bridge Road, Burbage Hinckley Leicestershire LE10 2ND</b>	Mixed used development comprising up to 376 dwellings, employment (use classes B1a, B1c, B2 and B8), local centre (Use classes A1-5 and D1), LIVE-WORK UNITS, WORKS TO Sketchly Brook corridor, remodelling of lake and associated open space, parking and accesses (outline – access only)  And  Approval of Reserved matters application for the erection of 133 dwellings with associated roads and landscaping	10km west	Approved – 30/8/11 & 12/12/20 12	
12/00851/FUL	<b>Land South of and adjacent to Asda George Headquarters A4303 Magna Park Lutterworth</b>	Change of use of land to provide HGV and car parking; formation of hardstanding; erection of vehicle maintenance unit building, administration building, fuel island and vehicle washing facility, associated landscaping (revised scheme of 11/01757/FUL)	1.7km	Approved 13/11/20 12	Unimplemented <i>*Detailed application forming part of the Hybrid application for this scheme, overlaps this site</i>
14/01090/OUT	Land north of Lutterworth Road Lutterworth	Business use development (Class B1a), with associated infrastructure, including means of access, open space, landscaping and sustainable drainage features	5.5km	Approved subject to completion of S106	Awaiting completion of S106
11/00117/OUT	Land north of Bill Crane Way Lutterworth	Residential development with associated infrastructure, public open space and provision of vehicular and pedestrian access (Outline application with all matters reserved for subsequent approval)	5.8km	Approved 23.01.20 12	Under construction
13/01282/REM	Land north of Bill Crane Way Lutterworth	Erection of 147 dwellings and associated garages, hardstanding, footpaths, means of access and other roads, and open	5.8km	Approved 22.01.20 14	Under construction

		space (reserved matters of 11/00117/OUT)			
14/00739/OUT	Land east of Leicester Road Lutterworth	Outline planning permission for 84 dwellings (means of access to be considered)	6.1km	Approved 03.10.2014	Unimplemented

## Other Developments Accounted

### *Study Areas and Scope*

- 9.8.3 Developments in bold on **Table 9.5** have generally been scoped out of the landscape and visual cumulative effects assessment, due to distance, because they affect a different local landscape character area or there is no visual interrelationship. Three sites, land at Dunton Road, land south of Hallbrook Primary and Sutton Lodge, Broughton Astley are all located in the far north east corner of the Upper Soar District LCA but have been excluded from further detailed consideration given their distance and relatively small scale, making any relationship very remote, and any potential cumulative effects, very small and not discernible, despite being within the same Upper Soar LCA. The application on land south of the Asda George Headquarters has been excluded as it overlaps with Zone 2 of the application site. The scoped out applications, in respect of landscape and visual issues, therefore include: the Rugby Radio Station site, Daventry International Railfreight terminal, Cawston Extension site, Rugby Gateway, Land bounded by the Ashby Canal, Land off Dunton Road, Land south of Hallbrook Primary and Sutton Lodge Farm, Broughton Astley and Land south of and adjacent to the Asda George Headquarters the zone 2, detailed application site).
- 9.8.4 The project in the table, ref. 15/00865/OUT, on land adjacent to Glebe Farm is an application that has been registered but not determined. In this case a sensitivity test has been provided.

### *Consideration of cumulative landscape effects*

- 9.8.5 The following paragraphs consider the in combination effects, of all the remaining sites and projects listed above and their significance with the exception of the land adjacent to Glebe Farm, which is specifically assessed in more detail, as a sensitivity test, later in this section.
- 9.8.6 Six developments, including 4No housing schemes (East of Leicester Road, two North of Bill Crane Way and the Leaders Farm Site) and 2No commercial schemes ( Land north of Lutterworth Road and Plot 2110, Magna Park) with planning consent, with a resolution to grant, subject to S106 or which are under construction, share a location with the Zone 1 part of the scheme to the south east of Mere Lane and the Zone 2 part of the application to the south of Magna Park, within the Lutterworth Lowlands Local Landscape Character Area. The published Harborough District Landscape Assessment identifies this character area as having a **medium to high** capacity/potential to accommodate development overall, with appropriate mitigation and sensitivity to identified objectives and issues (**See Baseline Conditions paragraphs 9.4.28**). The part of the Zone 1 application site within the Lutterworth character area, to the south east of Mere Lane, has been identified as an area of **low** sensitivity in **paragraph 9.5.13**. The part of the application site within Zone 2 is also considered to be of **low** sensitivity in landscape character terms (within the context of this assessment, as the site

already has consent for a HGV park and other land uses which are not dissimilar to that proposed within this hybrid application and the proposed uses can be accommodated in the same footprint.

- 9.8.7 Despite the additional developments above occupying a variety of fringe locations around Lutterworth and within or alongside Magna Park to the south and east, the additional effects of the new road connection to Argosy Way through a small part of the Lutterworth Lowlands which is strongly contained by Magna Park and the wooded character of Mere Lane is predicted to give rise to a very small scale effect on the fabric of the Lutterworth Lowlands, over a very limited geographical extent, albeit of a long term and partially reversible nature. Giving rise to an additional **low** magnitude of change. The zone 2 detailed applications Site is on the site of an existing HGV park consent and the magnitude of change proposed in this application in terms of scale, geographical extent and the duration of effects is comparable and therefore, additional impacts are considered to be of negligible magnitude, in terms of landscape character. The totality of the effects on the landscape character of the Lutterworth Lowlands, with the additional cumulative significance of effects arising from this development are considered to be **neutral to minor adverse** given the low sensitivity of the additional parts of the Lutterworth Lowlands effected by this project and by the small scale changes that are proposed on these parts of the application site.
- 9.8.8 As advised above no significant landscape character cumulative effects are anticipated on the Upper Soar LCA arising from zone 1 of this project, in addition, to the three small and distant schemes in Broughton Astley given their scale, the distance involved and the lack of any interrelationship.
- 9.8.9 No significant additional cumulative indirect or direct effects are also predicted from the identified list of additional sites to be considered, on the High Cross Plateau Landscape character area, in the Borough of Rugby. This is concluded, due to the very limited potential for any indirect interaction between any of the schemes and parts of the application Site, within the Lutterworth Lowlands LCA with that character area, to the south of Magna Park and to the west of the A5.

*Consideration of cumulative day time and night visual effects*

- 9.8.10 From a visual impact perspective, the extent of the zone of visual influence for the Site and the limits of this has been reviewed and none of the above projects would be visible at the same time (in combination) nor in the same view but at a different orientation (in succession), during the day time, due to principally visual barriers including the existing Magna Park, the George Headquarters building and the exiting settlement of Lutterworth. Views are also prevented in the case of Broughton Astley by the distance between sites, resulting in **negligible** additional day time direct visual effects. Consideration of the visual effects arising from viewing other sites, in sequence, in the day time, along the A5, within a reasonable distance has therefore been limited to the consideration of the land adjoining Glebe Farm Site (see below).
- 9.8.11 At night, the effects of new lighting on the application site, in combination and or in succession with the proposed lighting measures on the Plot 2110, Magna Park (former George House site) and other committed schemes, would result in no simultaneous glare effects given the visual barrier and separation provided by other intervening buildings and lighting of Magna

Park,,(including the George headquarters building) . No additional sky glow effects are anticipated given the design and mitigation measures associated with this application, to avoid additional orange sky glow from the new development and to reduce it in the existing Magna Park alongside, giving rise to a predicted **neutral** level of cumulative effect above that anticipated for the Hybrid application itself.

*Significance of Cumulative Effects of committed schemes (in the absence of the sensitivity test for the Land adjoining Glebe Farm scheme)*

9.8.12 The residual landscape and visual cumulative effects arising from the proposed development in combination with other permitted schemes (excluding the scheme on land adjacent to Glebe Farm, which is assessed separately below), in the local area, has been judged to be **not significant**, as in the medium to long term the application site scheme in combination with the other schemes, listed above, in the same district character areas, would not adversely affect the integrity of any areas of recognised landscape value and avoid identified separation areas. Each of the schemes incorporates proposals to respect the contextual landscape character and any temporary disruption to landscape elements or character would not outweigh long term mitigation or enhancement measures associated with the design.

9.8.13 In visual terms, the combined developments considered above, would avoid being visually intrusive and would not cause a perceptible deterioration in existing sequential views, day or night, from the A5, afforded to road users, over and above those anticipated for Zone 1 and Zone 2 of the application site.

*Consideration of the significance of cumulative effects taking into account a sensitivity test for the Glebe Farm Site proposed by DB Symmetry limited*

9.8.14 The current planning application 15/00865/OUT lodged by DB Symmetry Limited, is described in their Environmental Statement, as follows: *“The proposed development is for up to 3m sq ft (278,709 sqm) of buildings for class B8 Warehousing and Distribution, with ancillary class B1 (a) Offices, together with associated access roads and a lorry park, and demolition of Glebe farmhouse and outbuildings. The application is submitted in outline form, with approval sought for access off the A4303 Coventry Road and an emergency services only access onto the A5. Approval is sought for the maximum height of buildings as shown on the Parameters Plan.”*

9.8.15 Specific issues considered below include the cumulative effects on the Landscape character of the Lutterworth Lowlands Local Landscape Character Area (LCA) and indirect cumulative effects of the schemes, in combination, on the High Cross Plateau Local Landscape Character Area (LCA) to the west of the A5. As there are no identified combined visual effects from any particular viewpoints, the assessment of day and night time (artificial light) visual cumulative effects has been focussed on the anticipated ‘sequential’ visual effects on road users passing along the A5.

9.8.16 Cumulative night time glare and spill relating to artificial lighting effects, in both construction and operation stages are restricted to road users on the A5, as other potential receptors, specifically, local communities, would not be able to view any of these effects, in combination, given the intervening existing Magna Park development. However, additional consideration has been given below, to combined sky glow effects on surrounding communities, which could potentially be perceived, in the night sky, above the two application sites.



## Landscape effects

- 9.8.17 Cumulative landscape impacts arising from the combination of the DB Symmetry Ltd development and the Hybrid Application include the direct effects on the Harborough District, Lutterworth Lowlands Local LCA and the anticipated indirect effects on the Borough of Rugby High Cross Plateau LCA to the west of the A5. There are no anticipated cumulative direct or indirect landscape effects arising on the Upper Soar LCA arising from the DB Symmetry scheme due to the presence of the intervening existing Magna Park.
- 9.8.18 The Lutterworth and Broughton Astley Landscape Character Assessment and Landscape Capacity Study for Harborough District Council, December 2011 (pages 15,22 &23), identifies the Lutterworth Lowlands LCA - Magna Park - open farmland, within which the DB Symmetry site is located, as being a landscape of moderate (**medium**) to **low** landscape sensitivity. The DB Symmetry Ltd ES Landscape and visual effects chapter considers this LCA, based on its own assessment of the land comprising the application site, as being of **medium sensitivity**. This level has been accepted in Harborough District Council's landscape officer consultation response prepared by The Landscape Partnership.
- 9.8.19 The specific site character assessment carried out by Nicholas Pearson Associates for the part of the Hybrid Application site to the south of Mere Lane, within the Lutterworth Lowlands concludes that that area has **low** landscape sensitivity, to the proposed development. The assessment carried out for the Zone 2 site to the south of Magna Park concluded that this area was **medium to low** sensitivity.
- 9.8.20 The Landscape Assessment of the Borough of Rugby, Sensitivity and Condition Study, April 2006, reaches the conclusion that the overall sensitivity of the High Cross plateau- Open Plateau LCA is "moderate", **medium** sensitivity for the purposes of this assessment.

### *Construction Stage*

- 9.8.21 During construction, the magnitude of effects arising from the Hybrid application on the Lutterworth Lowlands LCA is considered to be **low and adverse for Zone 1 and Medium to low, for the Zone 2 scheme..** With the addition of the DB Symmetry development the additional effects including some fundamental changes to the Lutterworth Lowlands LCA within the DB Symmetry Ltd application site which would arise from proposed earthworks and land cover changes over a localised area and effects that are temporary but are predicted to be of a medium to long duration (up to 10 years) would be give rise to effects of **high magnitude on the site and locality.**
- 9.8.22 Therefore, the hybrid scheme is anticipated to give rise to **low and high** magnitude adverse effects on a receptor identified as being of **low to medium** sensitivity giving rise to an anticipated **moderate to minor** adverse impact during the construction stage. In contrast, the DB Symmetry application would have high magnitude effects on a receptor identified as being of **medium** sensitivity, giving rise to effects that are considered to be **major to moderate adverse**. The addition of the DB Symmetry scheme to that of the hybrid application, during construction, would give rise to effects that are considered to be **significant**, during construction, on the Lutterworth Lowlands District LCA. Without the DB Symmetry scheme significant effects on this character area would not arise.

9.8.23 During construction, the magnitude of indirect effects arising from the Hybrid application on the High Cross Plateau- Open Plateau Landscape Character Area is considered to be medium arising from Zone 1 of the application site, however, no additional effects from the DB Symmetry scheme are anticipated in combination with this area with this area. Zone 2, to the south of Magna Park is anticipated to have effects, during construction, on the High Cross Plateau of **low to medium magnitude** on a receptor identified in published documents as being of **medium sensitivity** giving rise to impacts that are anticipated to be **minor adverse to negligible**. A magnitude that is **low and adverse in terms of** indirect effects is anticipated from the DB Symmetry development which on a receptor of **medium** sensitivity would give rise to impacts that are **minor adverse**. The cumulative effects of adding the DB Symmetry scheme are therefore not considered to give rise to significant indirect cumulative effects on the High Cross plateau-open plateau, during the construction stage.

*Operation Stage*

9.8.24 During operation, the magnitude of effects arising from the Hybrid application (Zone 1 and Zone 2), on the Lutterworth Lowlands LCA is considered to be **medium to low**, on receptor areas identified as being of **low** sensitivity giving rise to anticipated effects that are considered to be **minor adverse to negligible** (Taking account for the consented scheme on the zone 2 Site), in the absence of this anticipated effects would have been **moderate to minor adverse**. The DB Symmetry Ltd development is anticipated to give rise to effects of a **high magnitude** in the short term, at a site/localised level, resulting from the change in land use and land cover reducing to a **medium magnitude**, at year 15, once new planting has established and made a positive contribution. The **high magnitude** effects, in the shorter term, anticipated from the DB Symmetry scheme on the Lutterworth Lowlands LCA, on a receptor of **medium** sensitivity would give rise to a residual level of anticipated effects considered to be **major to moderate adverse** reducing to **moderate adverse, in the medium term**. Therefore, alone the hybrid application would not cause significant effects on the Lutterworth Lowlands but with the addition of the DB Symmetry scheme there would be some **significant** effects on this district character area anticipated up until the mid to long term.

9.8.25 During operation, in combination effects on the High Cross plateau, would be limited to the west of the A5, to the south of Magna Park. In this area, **low** magnitude adverse effects are anticipated from the Zone 2 application site, on a receptor of **medium** sensitivity in the shorter term giving rise to anticipated impacts that are **minor adverse**, in the mid-term once the site landscape infrastructure has established the impact would reduce to **Negligible**. In contrast, the DB Symmetry application would give rise to effects, in the shorter term, of estimated, **medium to high** magnitude, indirectly affecting a landscape receptor of medium magnitude and giving rise to impacts that are **moderate adverse**. In the mid-term, once new planting has established the effects are identified as reducing to **low magnitude** and giving rise to an impact which would be **minor adverse**. Therefore, significant impacts to arise, from new buildings, on the High Cross Plateau, west of the A5, to the south of Magna Park from the DB Symmetry Scheme, in the shorter term, which would not otherwise be significant from the hybrid application, alone. Therefore, the cumulative indirect effects, in operation, with the addition of the DB Symmetry, on the High Cross Plateau, west of the A5, to the south of Magna Park, in both the short and the mid-term, are considered to be **not significant**.

## Visual effects

- 9.8.26 It is road users passing on a localised section of the A5 (approximate total length of 1km) approaching the existing Magna Park from the north and south that are the viewers that would experience the two developments sequentially. Existing views from the A5 toward both application sites are experienced intermittently due to the undulating local topography, intervening vegetation and some buildings. The visual receptors in this case are road users on the relatively fast moving, A5 corridor, who have some appreciation of the view but their principal focus is on the roadway. The views experienced across both sites are not publicised/recognised views and are heavily influenced by the existing distribution units of Magna Park and at night, the presence of oncoming headlights. Therefore road users in this instance are considered to be **low to medium sensitivity** receptors, to change.
- 9.8.27 Receptors that could be perceived to potentially experience the cumulative effects on sky glow, beneficial and/or adverse arising from the combined schemes, include principally the surrounding local communities. Residents in local communities are considered to be visual receptors of **high sensitivity**.

### *Construction Stage (Day and night time (artificial lighting effects))*

- 9.8.28 The construction operations associated with the DB Symmetry Ltd development including earthworks and building construction would constitute a noticeable change in the view and would form a conspicuous feature on a short (0.3km) section of the A5 alongside the Moorbarns Motel. In addition, to the north of Magna Park the Hybrid scheme works including the A5 widening operations would constitute a temporary major change in the view experienced for 2km on one side of the A5 between Mere Lane and White House Farm. The size/scale of the change is therefore considered to be **very high**. In combination, the construction phase effects of each development would effect a large extent of view, near the centre of the view (in the case of the road improvement works and building works beyond), to the north and at a more oblique angle to the south and both would effect a localised parts of the A5, covering approximately 2.5 km, either side of the existing Magna Park. The combined geographical influence is therefore considered to be **high**. The visual effects, during construction, experienced by road users on the A5 alongside the DB Symmetry Ltd scheme, would be experienced over the **medium to long term** as identified in the scheme environmental statement. The road works, including landscape works alongside, to the north of Magna Park associated with the Hybrid Application would be of short duration, with buildings works behind that are likely to be installed over a short to medium duration, in the first 0.5 km stretch of the road. In the remaining stretch the construction phase is likely to extend over the mid-term (0-13 years). The construction effects on users of the A5 would be partially reversible. In terms of duration and reversibility the combined effects are considered to be **medium**. Overall, during construction, the anticipated magnitude of sequential visual effects experienced by road users on a local section of the A5 either side of Magna Park are therefore considered to be very **high to high and adverse**.
- 9.8.29 Therefore, very **high to high adverse** magnitude effects are anticipated on road users considered to be of **low to medium** sensitivity giving rise to an overall level of sequential cumulative visual effect on road users, in the day time and as perceived from the A5, during

construction, which is considered to be **major adverse**. Therefore, cumulative sequential visual effects arising, in the day time, from the schemes in combination, during the construction phase, are considered to be **significant**. These effects would be significant with or without the DB Symmetry Scheme.

9.8.30 At night, during construction of the DB Symmetry scheme, as reported in their Environmental Statement, there are likely to be partial views of task and security lighting, particularly in the winter months and on days that are short when artificial lighting is required. Security lighting is identified as something that will be apparent all year. Best practice measures are identified as being proposed to control light intrusion and glare. The Hybrid scheme will introduce temporary construction lighting along the A5 road widening works and Mere Lane works and some construction compound security lighting alongside and away from the A5. The same best practice pollution control measures would be employed. In combination, the two schemes are predicted to give rise to a size and scale of effects that is **moderate and adverse**. The geographic extent of sequential views from the A5 of the combined schemes is localised. Views are intermittent and interrupted by views to the existing lighting associated with Magna Park, which are part of the context to these views. The backdrop of Magna Park lighting will also be present in the sequential views when heading toward Magna Park, in both directions. The views are from a fast moving road, where there are vehicle headlights on the opposite carriageway and the night time effects of construction lighting would be experienced over a relatively short length of the road. The combined geographic extent is therefore considered to be **low**. In terms of duration and reversibility, the proposed construction phase lighting is considered to be **medium**. In both cases the lighting effects will be reversible. The effects would be short in the case of A5 widening works lighting and medium term for compound security lighting, in the case of the Hybrid scheme. These effects of security lighting would be present over the longer term in the case of DB Symmetry, The overall combined magnitude of effect on road users on the A5 is considered to be **medium and adverse**.

9.8.31 Therefore, combined **medium** magnitude adverse effects are anticipated on receptors of **low** to medium sensitivity, giving rise to a residual level of night time sequential cumulative visual effect, during construction, on road users, on the A5, which is considered to be **minor to moderate adverse**. Therefore, cumulative artificial lighting effects, during construction, at night, are considered to be **not significant**.

*Operation Stage (Day and night time (artificial lighting effects))*

9.8.32 During Operation, the DB Symmetry Ltd project introduces new planting belts alongside the A5 in the vicinity of the Moorbarns Motel and on some field boundaries beyond this. Some, up to 18m to ridge, B8 Warehouse buildings, would also be introduced beyond these boundaries and an emergency access road will also be evident connecting to the A5. These new buildings and the planting belts would be viewed sequentially by road users as they progress along a relatively short section of the A5 (0.5km). On the section of the A5 south of Magna Park, in the short term, during operation, the new buildings would be apparent in a moderate to large extent of a slightly oblique, near view. As new vegetation matures, by year 10, the planting belts would appear as the main element in the foreground of the view, in near views, extending the existing pattern of roadside trees closer to Magna Park on the side of the A5. Views toward new buildings adjacent to the A5, would be increasingly screened in summer

and filtered in winter, however, buildings in the middle distance beyond the Moorbarns Motel would continue to be noticeable above the developing trees. Open views across towards Lutterworth from the A5 would be interrupted. To the north of Magna Park, a new roundabout would be in operation, road widening implemented and a new bank and hedge and tree planting implemented along the east side of the A5. In the early years, new warehouse buildings would be perceptible in winter and summer at an oblique angle and would be a conspicuous. By year 10, the appearance of the road corridor edges would be enhanced and the buildings would be barely perceptible from the carriageway, even in winter, along the first 800m section of the A5. Beyond this, there would be some oblique views, heading north across open playing field, Parcel J of the Hybrid scheme on the facing valley ridge, establishing planting along the edge of parcel J and along the road edge would limit the view from the carriageway by year 10 from what is a short fast downward section if the carriageway. This view would be experienced across the path of moving traffic, The view would be progressively more limited beyond the local valley section of the road, where the existing planting alongside the road would be strengthened and would conceal the warehouses beyond from the carriageway (by year 10). Views across to the development would also be limited as the buildings and a new internal road, at the north western end of the Hybrid scheme would be set down and away from the edge of the A5 carriageway, as well. Beyond this a new roundabout junction and enclosed access junction would have been introduced. Retained and strengthened vegetation either side or at the new access would limit views in to new buildings from this part of the route. The views would be more apparent by the junction in the earlier years but would be limited by year 10. The combined size and scale of change is anticipated to be initially to be **high** reducing to **medium**, by year 10. In combination, the operation phase sequential visual effects of each development would effect a large reducing to moderate, extent of view, over in the mid-term, near the centre of the view (in the case of the road improvement works), to the north and at a more oblique angle to the south and both would affect two localised sections of the A5, for approximately a 2.5 km length of road, either side of the existing Magna Park. The combined geographical influence is therefore considered to be **high to medium**. The sequential visual effects of the new planting, buildings and infrastructure associated with DB Symmetry and the Hybrid scheme to the north would be long term and only partially reversible. In terms of duration and reversibility the combined effects are considered to be **high**. The overall magnitude of the combined sequential effects on road users on the A5 is therefore considered to be **high** reducing to **medium adverse and overall, in the mid-term**.

- 9.8.33 Therefore, combined **high**, reducing to **medium** magnitude adverse day time effects are anticipated on receptors of **low to medium sensitivity**, giving rise to a residual level of sequential cumulative visual effect, during operation, on road users on the A5, which is considered to be **moderate adverse**, in the short term, reducing to moderate to **minor adverse**, in the mid-term. The combined scheme effects are therefore considered **not significant**, in the operation phase.
- 9.8.34 At night, during operation, the DB Symmetry development is identified as giving rise to new artificial light associated with the proposed development in the short to medium term that would be able to be viewed at close quarters, including from a section of the A5. In the longer term new structure planting, including that proposed along the edge of the site near to the A5



is identified as providing a partial screen. The lighting design mitigation principles identified in the associated lighting report scheme are sited as making it unlikely that receptors, including road users on the A5, would be affected by light intrusion or glare (intensity). The Hybrid scheme would include some new A5 road lighting at a new A5 roundabout junction and its approaches on the northern edge of the existing Magna Park and beyond this the section of A5 subject to widening works would continue to be unlit. The section of new road alongside Mere Lane would also only be lit at new junction approaches. There would be some further road lighting locally, at the new access junction and its approaches, a further 1km to the north along the A5. Lighting around the proposed buildings in the vicinity of the A5, in the Hybrid application, would be designed to comply with Institute of Lighting Engineers 'Avoidance of Obtrusive light' recommendations for Environment Zone 2. There would continue to be some noticeable additional lighting effects on road users, arising from the new roundabout junction on the A5 and through establishing vegetation to yard areas between new buildings (in the shorter term), however, the mitigation measures incorporated into the scheme, including the lighting design, siting of buildings and offices, a new bank, strengthened road side hedges and tree planting and a change in level alongside the A5, further north would limit further effects away from the junctions. The combined size and scale of effect anticipated, during operation, is considered to be **medium**, as there will be noticeable effects, at close quarters. The geographical extent is considered to fall from medium to **low by year 10** due to the moderating effects of establishing planting alongside the A5 carriageway. The combined duration and reversibility of the two schemes is considered to be **medium**, as whilst the lighting at the new roundabout junctions associated with Hybrid application would be permanent, noticeable and long term, other combined lighting effects (including spill and glare control measures) when viewed from the A5 would be of a shorter duration and would eventually be largely mitigated by the proposed density of roadside planting. The overall combined magnitude of effect on road users on the A5, is for the above reasons, considered to be **medium and adverse, reducing to medium to low in the medium term**.

- 9.8.35 Therefore, combined **medium** magnitude, reducing to **medium to low** adverse effects, in the mid- term, are anticipated on receptors of **low to medium** sensitivity, in the short term, giving rise to a residual level of night time sequential cumulative visual effect which would continue during operation, on road users, on the A5, which are considered to be **moderate to minor adverse**. The night time cumulative effects, during operation, when viewed sequentially from the A5, are therefore considered to be **not significant**.
- 9.8.36 The effects of the combined schemes in terms of sky glow are now considered. These effects are considered to arise principally in the operation phase. The Hybrid scheme as described and assessed in the main section of the ES is considered to have a neutral residual level of effect, in respect of sky glow on surrounding communities. This is explained, due to the incorporation of specific lighting design measures and standards as part of the proposed scheme to control obtrusive sky glow effects and other beneficial secondary measures including shielding effects of the new building and the changing over of some of the fittings of existing street lighting within Magna Park, itself, to reduce the existing baseline orange sky glow effects on all surrounding communities. The DB Symmetry scheme claims that it would include a sensitive lighting design at the reserved matters stage; however, there is nothing to provide clarity or certainty regarding this. It is acknowledged in the scheme ES that there



would still be some sky glow including reflection off hard standing areas. Also, the scheme does not provide a reduction in the baseline orange sky glow effects arising from the existing Magna Park. Therefore the magnitude of cumulative effects in operation, in terms of sky glow are therefore considered to be **negligible** in the case of the Hybrid scheme and from the information currently available are considered likely to be low, in the case of DB Symmetry.

9.8.37 Therefore, **low** magnitude adverse effects are estimated on local communities to the south of Magna Park, which are receptors of **high** sensitivity, potentially giving rise to **moderate adverse** sky glow (artificial lighting) residual effects, in the operation stage. Given the lack of certainty over the lighting design, it is considered that the addition of the DB Symmetry scheme would result in residual adverse cumulative night time artificial light – sky glow effects above the neutral level of effects anticipated from the hybrid application, alone. The actual precise level and significance of this, is however, not possible to predict at this stage.

### Significance

9.8.38 The main conclusions from this assessment of potential cumulative effects are that:

- with the addition of the DB Symmetry Limited scheme, effects on the landscape of the Lutterworth Lowlands District LCA are elevated to become **significant**, during construction, and up until the mid to long term, whereas the Hybrid Application in combination with other accounted developments has anticipated effects on this landscape character area that are considered to be not significant;
- there are no anticipated significant indirect landscape, in combination, effects arising from the combined schemes on the High Cross Plateau- Open Plateau Landscape Character Area to the south of Magna Park;
- the DB Symmetry scheme, in combination, with this scheme would give rise to **significant sequential** visual effects, in the day time, on road users passing along the A5, during construction and in the early years of operation, however, the combined effects are not anticipated to be significant from the mid-term. Night time sequential visual effects, as experienced from the A5, are not considered to be significant during construction or in operation;
- the DB Symmetry scheme is anticipated to lead to an increase in artificial lighting effects, arising from sky glow, on communities to the south of Magna Park over and above the levels arising from this application and other considered development. However, the potential scale of this is not possible to accurately estimate at present;
- there are not any anticipated significant effects arising from the other committed developments, in combination, with this application.

### Multiple issues resulting in cumulative effects

9.8.39 As the built infrastructure, lighting design, landscape design and green infrastructure strategy has been developed in a manner that simultaneously addresses integrates issue resolution across the disciplines of ecology, heritage, hydrology and recreation, there are anticipated to be some further cumulative minor beneficial effects arising from this multifaceted design

approach. This reinforces the conclusion that the Hybrid scheme, in operation, in the mid-term would not give rise to significant Landscape effects.

## 9.9 Summary

- 9.9.1 The landscape and visual impact assessment has involved desk and field study to identify the landscape value and susceptibility of the Site to the proposed logistics development and to identify its potential visibility in the surrounding area. The Site is not located directly inside or in the vicinity of any area of recognised and/or designated landscape. However, there is some identified intervisibility with the Site from parts of the Bittesby Medieval Village Scheduled Monument, from a part of the Ullesthorpe Moat Scheduled Monument, St Peter's Church, Claybrooke Parva, the church of St Leonard, Willey and some windows within the Grade II Ullesthorpe Windmill. The effects on the views experienced by visitors to these sites has been considered within the visual assessment and the specific effects on the settings of these heritage assets has been assessed within Chapter 11 Heritage and Archaeology.
- 9.9.2 The assessment provides a baseline description of the Landscape planning policy framework and landscape character at a national, regional and local scale. The scheme directly impacts upon parts of two Harborough District Council Local Landscape Character areas, the Lutterworth Lowlands and the Upper Soar. These have been assessed as having a low and medium sensitivity, respectively, to the changes proposed. Some indirect effects on the adjacent Borough of Rugby Local Landscape Character Area of the High Cross Plateau (judged to be of medium sensitivity), to the west of the A5, have also been considered.
- 9.9.3 Zone 1 of the Site is visually contained to the south and east by the existing buildings of Magna Park. Views in from the west are limited by existing vegetation on the western edge of the A5, between Willey and the Site and by Long Spinney. Local ridges and existing vegetation partially interrupt middle distance views from other directions. From the north and west the Site is generally seen in the context of existing Magna Park buildings. Walkers on sections of public footpaths, walkers within some areas of open access land, some residents on Woodway Lane, at White House Farm and in parts of surrounding villages, including on the south eastern edge of Ullesthorpe, bridleway users, visitors to the Bittesby, Ullesthorpe Moat Scheduled Monuments and Ullesthorpe Mill, users of sections of the local road network and workers in Willey Fields Farm and on Argosy Way in Magna Park, would experience some changes in views resulting from the development and the visual effects on these have been assessed.
- 9.9.4 Zone 2 of the application site is located on the site of the consented HGV Park south of Magna Park. This area also falls within part of the Lutterworth Lowlands Landscape Character Area but for the purposes of this assessment has been considered as a completed HGV Park which would be modified and adapted to also provide a facility for storing and transferring containers to nearby rail distribution sites. This site is set in the visual context of offices and warehouse distribution buildings and there is limited opportunity to view the site from the local surroundings. Views from a section of the A5, from bridleway X32 to the south, near

Moorbarns, a section of the Lutterworth Road and a section of the A4303 have been considered to inform judgements about the visual effects of this detailed proposal.

- 9.9.5 The principal landscape and visual impacts arising from the proposed development, during construction, include: some vegetation removal, demolition works, earthworks (including top soil re use), building installation works (including cranes), fit out works, new road construction, landscape infrastructure installation and from construction phase compounds, traffic and temporary lighting.
- 9.9.6 The scheme design includes the following key mitigation measures, during construction: Avoidance and reduction of effects on existing vegetation, hedgerows and waterbodies; Incorporation of tree and vegetation protection fencing measures and implementation of an approved Arboriculture Method statement to safeguard surrounding vegetation and to strictly define working areas; Utilisation of the Code of Practice for the sustainable use of soils on construction sites, to conserve and manage top soil for reuse on site; The transplanting of removed establishing woodland planting for re use elsewhere in the proposed scheme; temporary diversion of a permissive and rights of way routes, avoidance of the existing hedges to the west of the A5 and temporary lighting, spill and glare control measures.
- 9.9.7 During operation, landscape and visual impacts include those arising from: the new logistics buildings, service yards, the A5 road widening and improvement works, new access roads, new lighting within the site, including at new junctions, along the extended Argosy Way and through the Site, together with a the incorporation of a country park and meadow land as part of a comprehensive and visionary landscape, biodiversity and land drainage, logistic park scheme.
- 9.9.8 In operation, the scheme design in Zone 1 includes the following design measures to address potential impacts and to avoid or reduce landscape and visual (day and night time) effects, whilst also sensitively integrating the scheme into the local landscape and visual context: Key design measures include: restrictions on building heights, the siting of road infrastructure low in the scene, the lowering of buildings through landform modification including alongside the A5, the sensitive siting of yards, offices and parking areas and use of new buildings and structural planting to shield operational activities from adjacent communities. The scheme aims to achieve a cut and fill balance and positively reuse site won topsoil, also to reinstate a meadow area to protect buried archaeology in the vicinity of the Bittesby Scheduled monument , Also, a key measure would be the colouring of the new building façades in a cladding which is tapered from light blue to off white to aid visual integration with the sky and in places with the light coloured existing building backdrop; The establishment of new woodland spinneys along the Ullesthorpe parish boundary and the restoration of former field boundaries, in the vicinity of the Bittesby Scheduled Monument and alongside new roads, are proposed to aid visual integration, reinforce the existing landscape pattern and to enhance ecological connectivity;
- 9.9.9 The scheme incorporates sustainable urban drainage features to maintain water quality, manage runoff and enhance wet land habitat. New spinneys and wet woodland are incorporated alongside parts of the tributary valley, to provide visual containment, restore the landscape pattern and habitat connectivity; Also, incorporated into the design, is a lighting

strategy which is responsive to the Institute of Lighting Engineers 'Guidance Notes for the reduction of intrusive light, 2005' through a compliant lighting scheme and further measures to reduce spill and sky glow from within the existing Magna Park. These measures would be delivered and monitored through implementation of approved drawings, planning conditions, Section106 agreements, and a conditioned Construction and Environmental Management Plan.

- 9.9.10 The above design measures are delivered within the context of a landscape masterplan vision. The scheme that is the subject of this application specifically aims to further the objectives of the 'Statement of Environmental Opportunities' published in the Leicestershire Vales National Landscape Character Area Profile and the principles of sustainable development through its landscape masterplan and a scheme that integrates with the local Soar valley tributaries to deliver some positive environmental gains associated with recreation, landscape management, heritage and biodiversity, in combination with the proposed development.
- 9.9.11 In zone 2, in the detailed scheme, embedded landscape design measures include: tree protection fencing during construction to safeguard boundary trees, an earth bank with native woodland planting (with some evergreen trees) which would be set inside and above the level of the existing tree and hedge lined southern boundary. This boundary treatment is incorporated to reinforce the existing visual containment (in summer and winter), provided by the existing boundary vegetation, particularly in views from Moorbarns and the A5. Container storage areas are set at the bottom of the site and are restricted in stacking height to aid visual assimilation. Tree planting and shrub planting on the northern and north east boundary has been incorporated to filter views toward the site, its access road and its entrance building from the A4303. A native planting belt has also been incorporated along the western boundary of the Site to strengthen the existing boundary tree containment afforded to the site along the edge of the A5, in views from the Lutterworth Road, to the west. A sensitive lighting scheme has also been submitted to avoid obtrusive lighting effects.
- 9.9.12 During construction, the residual landscape effects arising from the works proposed on the Zone1, part of the site, to the south east of Mere Lane, within the Lutterworth Lowlands landscape character area, are anticipated to be, over a medium term, and minor adverse on the site and negligible on the locality. The construction effects arising from the detailed application Site works, proposed within the Zone 2 part of the application site, to the south of Magna Park, also in the Lutterworth Lowlands, would be short term and has been judged to be minor adverse. These effects would not be significant.
- 9.9.13 The construction effects, arising from the Zone 1 parts of the scheme to the north west of Mere Lane, which would take place over the medium term, are anticipated to cause moderate to major adverse effects on the low lying clay vale farmland, at a site level and moderate effects on the locality. The construction effects arising from this part of the site, at a site level, are considered to be significant. The construction effects arising from the Zone 1, within the Soar tributary valley parts of the application site are anticipated to be medium term and to be moderate adverse at a site level and moderate to minor adverse on a 0.5km locality. These effects would not be significant.

- 9.9.14 Indirect construction effects are also anticipated to arise on the High Cross Plateau landscape character area, to the west of the A5. The levels of effect predicted, over the medium term, arising from the Zone 1 part of the application site is considered to be moderate adverse. The indirect construction effects anticipated from the Zone 2, detailed scheme for the dedicated Magna Park rail freight shuttle terminal and HGV parking facility, on the adjacent High Cross plateau landscape are considered to be minor adverse, given the limited area effected and extent of intervisibility. These effects would not be significant.
- 9.9.15 The day time, visual effects anticipated, from the Zone 1, part of the application Site, during construction, overall, are considered to range from major adverse to neutral across the potential viewers of the scheme. Some significant effects, during construction, are anticipated, on some sections of public footpath and bridleway approaching the A5 and between Chuckey Hall and Willey, within the application site and from sections of the A5. These effects would be short to medium term, in nature. The Zone 2 part of the application Site, south of Magna Park, would during construction, give rise to visual effects that range from moderate to minor adverse. A noticeable deterioration, in views is anticipated from road users on the A5 and visitors to the Liberty Hotel and horse riders on a section of bridleway near Moorbarns and road users and workers in the vicinity of the A4043, Coventry Road. Barely perceptible effects are anticipated from elsewhere. Some of the visual effects of the Zone 1 application site are considered to be significant.
- 9.9.16 At night, during the construction stage, artificial lighting effects arising from Zone 1 of the application Site, to the north west of Magna Park are anticipated to range from moderate adverse to neutral. None of the effects are considered to be significant and the largest level of effect would be on road users on a short section of the A5. The artificial lighting effects anticipated, during construction, from the Zone 2, dedicated Magna Park rail freight shuttle terminal and HGV parking facility, to the south of Magna Park would be moderate adverse on road users on a short stretch of the A5 but no other notable effects have been identified, and none of the impacts are considered significant.
- 9.9.17 During the operation stage, the residual landscape effects arising from the works proposed on the Zone1, part of the site, to the south east of Mere Lane, within the Lutterworth Lowlands landscape character Area, are anticipated to be minor adverse at a site level and have a negligible effect on the locality. The operation effects arising from the detailed application work, proposed within the Zone 2 part of the application site, to the south of Magna Park, in the Lutterworth Lowlands, are anticipated to be moderate adverse on the site and minor adverse on the locality reducing to negligible in the mid-term. The effects have been considered against the background of an existing committed HGV Park development on the site. The operation stage effects on the landscape of the Lutterworth Lowlands are considered to be not significant.
- 9.9.18 The operation stage effects arising from the Zone 1 parts of the scheme to the north west of Mere Lane are anticipated to cause moderate to major adverse effects on the low lying clay vale farmland, reducing to moderate adverse in the mid-term, at a site level and moderate adverse effects on parts of a 1.5km locality. The operation effects arising from the Zone 1 scheme, within the Soar tributary valley parts of the application site, are anticipated to be moderate adverse at a site level and minor adverse reducing to minor adverse to negligible on



a 0.5km locality in the mid-term, once the scheme landscape has established. The effects on the low lying arable farmland within the Zone 1 Site are considered to be significant, at the year of opening and in the shorter term, at a site level.

- 9.9.19 The indirect effects, anticipated to arise on the landscape of High Cross Plateau LCA, to the west of the A5 from the Zone 1 part of the application site, during operation, are considered to be moderate adverse, reducing to minor to moderate adverse over up to a 1.5km area, in the mid-term. The indirect effects anticipated from the Zone 2, detailed scheme for the dedicated Magna Park rail freight shuttle terminal and HGV parking facility, on the High Cross plateau are considered to be minor adverse reducing to negligible, over up to a 1km area, in the mid-term, following the establishment of proposed landscape boundary treatments. The above indirect effects on the landscape of the adjacent High Cross Plateau would not be significant.
- 9.9.20 The day time, visual effects anticipated, during operation, overall, arising from Zone 1 of the application site are considered to range from major to moderate to neutral adverse across the potential viewers of the scheme. Large effects would be apparent in opening year and in the shorter term from some sections of footpath and bridleway within the application site and from sections of the A5. Noticeable effects would be experienced by some residents on Woodway Lane, a resident to the east of White House Farm, horse riders and walkers in the locality (including on the southern edge of Ullesthorpe and on the bridleway between Willey and Chuckey Hall) and visitors on permissive routes/open land within limited parts of the Bittesby scheduled monument site. Visual effects are considered to be significant in the opening year and short term, on the above viewers, but are anticipated to become not significant in the mid-term when the landscape framework for this part of the site has had time to establish. The day time residual visual effects, anticipated to arise from the dedicated Magna Park rail freight shuttle terminal and HGV parking facility are considered to range from moderate to minor adverse across the potential viewers of the scheme. Noticeable effects would persist in the view from a short section of the A5 until the mid-term. These effects are not considered to be significant in the short or longer term.
- 9.9.21 At night, operation stage, residual effects, with design and mitigation measures in place, arising from the Zone 1, part of the application site are considered to range from moderate to neutral. Some residents and some road users on part of Main Road, Willey are anticipated to experience some noticeable effects in the short term, from the north western part of the application site, reducing to barely perceptible levels, after establishment of boundary vegetation, in the mid-term. Road users on the A5 would experience some noticeable effects that would persist, where new street lighting approaching new junctions is introduced. Residents on Woodway Lane and some residents on the southern edge of Ullesthorpe are anticipated to experience barely perceptible effects, with the improvements to the existing Magna Park lighting, whilst neutral effects are anticipated on the community of Claybrooke Parva. The night time, operational stage residual effects of lighting, anticipated from the Zone 2 Site, are considered to be moderate adverse reducing to moderate to minor adverse in the mid-term and principally effecting road users on the A5 and visitors to the Liberty Hotel. The night time operation stage effects arising from artificial lighting are all considered to be not significant on the surrounding communities.



- 9.9.22 A cumulative landscape and visual assessment has been prepared and this includes consideration of the combined effects of this scheme with committed developments and that proposed by DB Symmetry on land adjoining Glebe Farm. In terms of landscape, additional cumulative effects on the Lutterworth Lowlands LCA, to the south of Magna Park are anticipated, arising from the development proposed alongside Glebe Farm, which would substantially elevate landscape impacts to make them significant, on this landscape area, during construction and until the mid-term. In visual terms the main issue is the effect of the two schemes when viewed sequentially by road users moving along the A5 corridor, along a stretch of the road, either side of Magna Park. This project, combined with the DB Symmetry scheme would give rise to significant sequential visual effects, experienced by road users, in the day time, during the construction and operation stages, with effects reducing to levels that are not considered significant in the mid-term, during operation, once the proposed planting and landscape measures alongside the A5 have established. Sequential visual effects, on road users, at night, are not considered to be significant. Otherwise, the key additional effect arising from the DB Symmetry scheme is anticipated to be the effects of increased artificial light on surrounding communities to the south of Magna Park; however, potential effects cannot be accurately predicted at this stage.
- 9.9.23 With the above measures in place and secured, the assessment concludes that whilst there are some significant landscape and visual effects arising during construction and in the shorter term, these need to be considered in the planning balance. In the mid-term, no landscape and very few visual effects, arising from this development, are anticipated to be issues that would become key factors influencing the decision making process.

## 9.10 References/Bibliography

### 9.10.1 Reference documents

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4. Environmental Design Group *The Landscape Assessment of the Borough of Rugby, Sensitivity and Condition Study*, April 2006. (P17)
5. Institute of Lighting Engineers, *Guidance Notes for the reduction of obtrusive light*, 2005
6. Department for the Environment, *Code of practice for the sustainable use of soils on construction sites*, March 2011

### 9.10.2 Bibliography

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Appendix F 2: Detailed LVIA methodology

Appendix F 3: Landscape character assessment site survey forms

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Appendix F 5: Summary tables of effects

Appendix F 6: Hayden's arboriculture report and drawings and tree growth rate assumptions

Appendix F 6: KTA lighting report and drawings

## Appendix F 2: Detailed LVIA methodology

## **Technical Appendix F.2 - Landscape and Visual Impact Assessment (LVIA) Methodology**

This chapter of the ES will identify and assess the likely significance of and effects of change arising from the development on both the landscape as an environmental resource in its own right and as a separate topic views and visual amenity, as experienced by people. It will seek to identify the impact, or action arising from the development proposals, and the likely effect, or change resulting from the impact.

This assessment has been prepared using a methodology developed by Nicholas Pearson Associates, and draws upon current best practice guidance including:

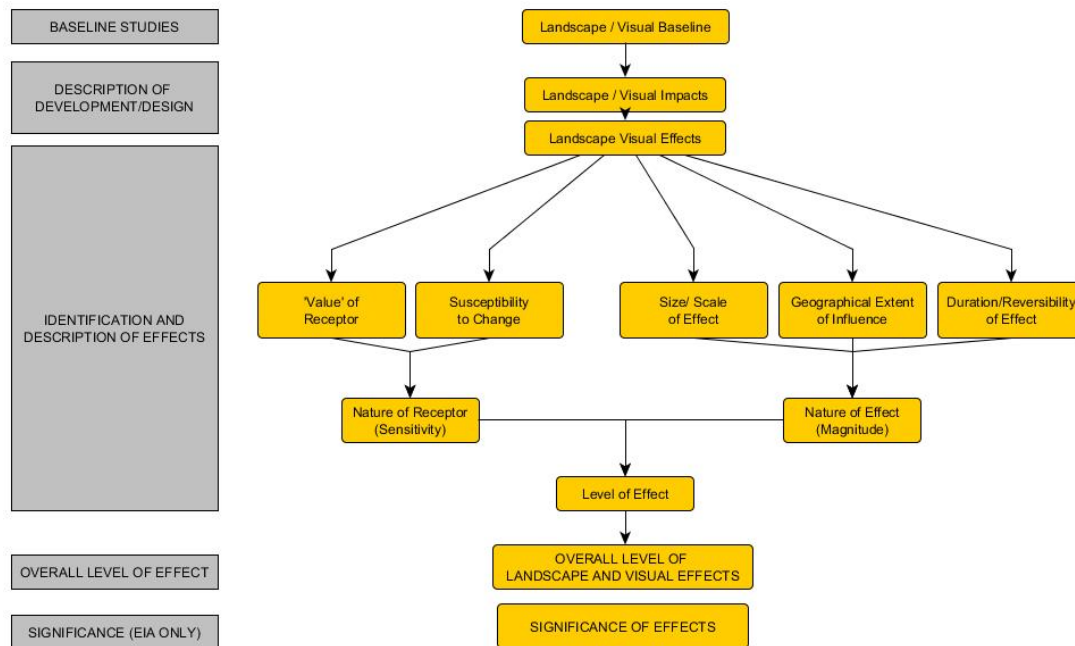
- The Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, prepared by the Landscape Institute and Institute of Environmental Management and Assessment (April 2013);
- An approach to Landscape Character Assessment (October 2014) prepared by Natural England ; and
- The Landscape Institute (2011) Photography and photomontage in landscape and visual impact assessment. Advice note 01/11.

Landscape and Visual Impact Assessment also addresses the effects of development on green infrastructure and also the potential for enhancing it. LVIA can also make a contribution to sustainable development including mitigation and adaptation to climate change.

Professional Judgement is an important part of the process of determining the level of effects and significance. The concluding level of landscape or visual effects or likely significance will be based on combining judgements about the nature of the receptor (summarised as its sensitivity) and the nature of effects (summarised as magnitude).

Narrative text is used to identify the main landscape and visual issues, in this instance and to explain the reasoning behind the concluding judgements made regarding levels of effect.

An overview of the steps involved in the LVIA assessment process is illustrated in the following chart:



**Figure API – LVIA Process Overview developed by NPA.**

The assessment follows the same overall process for both landscape character and visual effects.

### **Proposed Landscape and Visual Impact Assessment (LVIA) Methodology**

The detailed methodology for each is described as follows:

#### **Planning Context**

Initially, the Landscape and Visual Planning Policy Context will be summarised and key policy and planning issues identified.

#### Landscape Character Baseline Assessment

The assessment adopts the definition of landscape character described in 2000 by the European Landscape Convention<sup>1</sup>, as follows:

*‘... an area, as perceived by people, whose character is the result of the action and interpretation of natural and/or human factors’.*

The aim of the landscape baseline *‘is to provide an understanding of the landscape in the area that may be effected –its constituent elements, its character and the way this varies spatially, its geographical extent, its history, its condition, the way the landscape is experienced and the value attached to it’*(GLVIA 3<sup>rd</sup> Edition, P32 Paragraph 3.15).

<sup>1</sup> Council of Europe. *European Landscape Convention*. Florence, 2000.



Landscape character is defined by the locality's key characteristics. Taken together these components form a collective landscape character area which can be used to define the locality. An evaluation of these character areas is made to identify the qualities and sensitivities which could be potentially affected by the proposed development. The anticipated trends for evolution and change in the landscape, without the proposed scheme, will also be described.

An assessment of the site's landscape character will be developed through a review of published assessments and at a more detailed local level following field and desk study. Field studies notes will be recorded on a pro forma study aid and together with the desk study will identify specific landscape receptors which will comprise local landscape elements and features, and landscape character areas (LCAs) defined as regions with similar landscape characteristics. Individual landscape character areas and notable features will be mapped.

Once landscape character has been defined, classified and described, the landscape value (including any recognized designated or non-designated status attached to different landscape by society and the condition) and the susceptibility of the landscape to the type of change envisaged are assessed and combined to establish the nature of the receptor (sensitivity) of the landscape. Note, 'that the level of sensitivity of the landscape receptors in LVIA 'is specific to the particular project or development that is being proposed and to the location in question' (GLVIA 3<sup>rd</sup> Edition P88 Paragraph 5.39).

#### Landscape Value

Landscape value is 'the relative value that is attached to different landscapes by society (GLVIA, 3<sup>rd</sup> Edition Glossary p 157)

In this assessment landscape value is established, after the preparation of the baseline, following consideration of the following:

#### I. Designated and Non Designated Landscape including:

- National/International - Designated landscapes which are nationally or internationally designated for their landscape value – including National Parks, Areas of Outstanding Natural Beauty, World Heritage Sites; Heritage Coasts and National Scenic Areas
- Local - Locally or regionally designated landscapes (eg. Area of High Landscape Value, Regional Scenic Areas); also areas where local evidence indicates more value than the surrounding area.
- Community –'everyday' landscape which is appreciated by the local community but has little or no wider recognition of its value.
- Despoiled or degraded landscape with little or no evidence of being valued by the community

Note: GLVIA 3<sup>rd</sup> Edition, also states on page 89, in Paragraph 5.45, that *'the value of the landscape receptors will to some degree reflect landscape designations and local importance, which they signify, although there should not be over reliance on designations as the sole indicator of value'*.

## 2. The Key Landscape Characteristics including consideration of their Condition

- This concurs with the GLVIA 3<sup>rd</sup> Edition, P89, Para 5.44 which identifies that to establish landscape value consideration should also be given to *'the value of individual contributors to landscape character, especially the key characteristics'*.

### Visual Context Baseline Assessment

The aim of the visual baseline is to *'establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at those points'* (GLVIA 3<sup>rd</sup> Edition, P32 Paragraph 3.15). Also, where possible the approximate or relative number of different groups of people who will be effected.

To begin the process of establishing the extent of the area that may be visible to and from a new development, a Zone of Theoretical Visibility (ZTV) will initially be generated using digital terrain mapping and knowledge of the anticipated size and form of the development proposals. This will be verified through a combination of contour map analysis and field work to determine where built form and vegetation may limit visibility. The ZTV will identify land that is theoretically visually connected with the proposals and therefore where the people who will experience views of the development (Visual Receptors) are likely to be. In this chapter, a more detailed ZTV has been created using a 5x5km digital surface model (DSM) with a resolution of 2m and a vertical error of  $\pm 25\text{cm}$  which models the effects of existing vegetation and built features and this has enabled the extent of visibility to be refined. All ZTV calculations were done within the QGIS geographical information system environment and view shed analysis software.

Within the ZTV, representative and any key viewpoints from publicly accessible land identified through agreement with the competent authority. The selected viewpoints may be:

- Representative of visual receptors;
- Specific views, typically selected as examples of promoted noteworthy viewpoints or views with cultural associations; or
- Illustrative viewpoints, chosen to demonstrate a specific issue.

The reasons for any viewpoints or areas being scoped out or excluded from further assessment will be explained in the text.

For each viewpoint a photographic image will be taken in accordance with guidance contained within the Landscape Institute (LI) Advice Note 01/2011: Photography and photomontage in landscape and visual impact assessment' The advice note recognises that:

*'Two-dimensional photographic images and photomontages alone cannot capture or reflect the complexity underlying the visual experience, and should therefore be considered an approximation of the three-dimensional visual experiences that an observer would receive in the field;*

*'As part of a technical process, impact assessment and considered judgements using photographs and/or photomontages can only be reached by way of a visit to the location from which the photographs were taken.'*

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*'As part of a technical process, impact assessment and considered judgements using photographs and/or photomontages can only be reached by way of a visit to the location from which the photographs were taken.'*

#### Photographs and Visually Verified Montages

The specific procedures relating to the use of photography that have been followed in this chapter and reflecting the guidelines within the Landscape Institute (LI) Advice Note 01/2011, are as follows:

##### *Photography*

Nicholas Pearson Associates use Digital Single Lens Reflex cameras to ensure that the printed images are of a size and resolution which best represents the chosen viewpoint. Occasionally, alternative makes of Digital SLRs may be used; however this will be stated on the final documentation.

##### **Equipment:**

- Canon 5D full frame digital SLR camera
- Canon 50mm f1.4 lens
- Canon 28mm lens
- Canon 24mm lens
- Alternative lenses: hired upon requirement
- Alternative cameras: Canon EOS 450D & 1000D
- Tripod
- NN4-DI 6-Nodal Ninja NN4 Panorama head with RD-1 6 rotator base

- *NN-EZ-Nodal Ninja EZ Leveller MKII*
- *Plumb bob*
- *Compass*

L VIA & VVM photographs are taken using the most appropriate combination of lens focal lengths to ensure that the field of view covers the proposed scheme environment or landscape context. Photographs are predominantly taken in landscape format unless circumstances dictate an alternative. Using Ordnance Survey mapping or detailed topographic surveys, Cameras are located and mounted on a tripod at height of 1.6m above existing ground level, which best represents the average human eye level. A leveller is used to ensure that the camera is horizontal and a panoramic head is necessary when capturing panoramas. A photograph of the tripod in situ is taken and a plumb bob is used to accurately locate the camera on the ground if the location is to be surveyed.

Photographs are taken; preferably using an ISO of 100 with an aperture suitable to capture the greatest depth of field the photographs are stored as a RAW format using manual settings to enable the best quality results. The photographer will make note of the weather conditions and direction of view. All other details relating to the photograph are stored in the image EXIF data. If necessary, the original RAW file can be submitted as part of the verification process.

Suitable weather conditions are sought so that the proposals may be clearly visible in the context of the view. It should be noted that taking photographs looking south during the winter, due to the low angle of the sun can be problematic. Therefore we endeavour to take the photographs at the appropriate time of day to reduce the chance of the site being in shadow or backlit. Each photograph, or combinations of photographs, correctly portrays the view which is obtained at each representative viewpoint whilst avoiding obvious obstructions. The location of each viewpoint is accurately located on a survey.

#### *Principle Viewing Distance:*

For the representative panoramic views, a series of photographs were taken to the entire width of view or a full 360° @ 15° intervals. A fixed 50mm focal length lens is used for this. For the Visually Verified Montages, two sets of photographs were taken. One using a 24mm lens to be printed on A3 and viewed at 300mm, another using a standard 50mm lens to be printed on A3 and viewed at 500mm.

#### *Reproduction and presentation material*

Our chosen desktop publishing software is Adobe In-Design. All our VVM views are presented at 100%, suitable for A3 / A2 / A1 reproduction.

Our images have a target resolution of 300PPI; suitable for high quality printing when reproduced on printers with resolutions of up to 2400DPI.

Each viewpoint within the document is supplied with the following information:

- *Figure Number*
  - *Viewpoint Number*
  - *Viewpoint details*
  - *OS Coordinates (12 digit)*
  - *Direction of view*
  - *Date & Time*
  - *Principle Distance (Viewing distance)*
  - *Single Frame or Composite*
  - *Horizontal Field of View*
  - *Weather / Lighting conditions*
  - *Camera Type*
  - *Lens / Focal Length*
- Nicholas Pearson Associates present all LVIA and VVM documents incorporating photographs and VVMs at A3 or A1.
  - All must be reproduced at 100% of original print size unless otherwise stated.
  - Once an electronic document has been issued, Nicholas Pearson Associates accept no responsibility for printing quality should the documents be printed on a third party printer which does not meet the required standard.

**Please Note:** Also, see the separate Nicholas Pearson Methodology specifically covering the process followed for Visually Verified Montage Preparation included at the back of this detailed LVIA method statement.

As well as the technical information set out above, for each viewpoint a description will be provided of the following:

- Nature of the receptor – a description of who may experience the view;
- Nature of the view – the direction, elevation, composition and characteristics of the view;
- Duration of the view, whether the view is transient, part of a sequence or temporary or permanent;
- Importance of the view – taking into account highly valued or designated landscapes, recognised viewpoints ;
- Context – of the site within the view.

Using professional judgement, the interaction of these factors will enable the relative value of each of the selected viewpoints to be established, as well as enabling the nature of the visual context of the site to be described.

#### *Description of the Development/ Design*

A full description of the proposed development will be included elsewhere within the ES. However, within this chapter, the development proposals will be described in summary where they relate specifically to potential impacts on the existing landscape character and visual context. Descriptions

will be provided for the external realm design proposals as well as the built form, where information has been provided by the design team.

### Design, Mitigation and Enhancement Measures

The identification of the likely level of effects on the landscape as a resource and the visual context has been used to help inform the design process and highlight where it may be important to prevent/avoid, reduce and where possible remedy any adverse landscape and visual effect or provide opportunities for enhancement. Key design measures which have been incorporated into the scheme proposals in response to potential impacts identified within this chapter, will be summarised. Evidence for the deliverability of mitigation will also be provided.

### Identification of Potential Landscape Effects

Information about the development will be used to predict the likely impacts and effects on the landscape, during the construction, operation stages of the scheme for each landscape receptor.

In order to focus the assessment on key landscape issues, any effects that have been 'scoped out', because they have been judged to be insignificant or unlikely to occur, will be described. In addition, other effects that have been addressed by amendments to the scheme design through the iterative design/assessment process will also be identified.

The step process identified in the GLVIA 3<sup>rd</sup> edition, Chapter 3, will then be followed to explain judgements about the nature of the landscape receptor (or its sensitivity) and the nature of the effect on it (magnitude) and these will be combined to establish the level of the effect anticipated.

Step 1- Assess against agreed criteria

#### **The Nature of the Receptor (or Sensitivity)**

The initial step will be 'to consider each receptor in terms of its sensitivity made up of judgements about:

- the susceptibility of the receptor to the type of change arising from the specific proposal ; and
- the value attached to the receptor;

#### **The Nature of the Effect (or Magnitude)**

and secondly its magnitude made up of judgements about :

- the size and scale of the effect e.g. whether there is complete loss of a particular element of the landscape or view or a minor change;
- the geographical extent of the area that will be affected; and
- the duration of the effect and its reversibility'.



### The nature of the Landscape Receptor (Sensitivity)

Professional judgement will be used to define the sensitivity of the receiving landscape based on combining judgements about the landscape value established in the baseline and the susceptibility of the landscape to the development type envisaged. A narrative will be used to explain the concluding nature of the receptor (sensitivity).

Landscape Susceptibility is 'the ability of a defined landscape to accommodate the specific development without undue negative consequences' (GLVIA, 3<sup>rd</sup> Edition Glossary p 158)

It is important to also note, as stated in the GLVIA 3<sup>rd</sup> Edition p90 Paragraph 5.46, that 'there can be complex relationships between the value attached to landscape receptors and their susceptibility to change which are especially important when considering change within or close to designated landscapes. For example:

- An internationally nationally or locally valued landscape does not automatically, or by definition, have high susceptibility to all types of change.
- It is possible for internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from a particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal.
- The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape.'

Example descriptors/criteria used for value, susceptibility and Sensitivity used to inform the assessment judgements/conclusions summarised in the Tables in the Volume 3, Technical Appendix F are provided below:

**Table LC1. Value of Landscape Receptor to Change**

Value of Landscape Receptor	Example Criteria
Very High	Areas with international or national landscape designations, i.e. National Parks and Areas of Outstanding Natural Beauty or international heritage designations i.e. World Heritage Sites and their landscape setting. A landscape that contains a significant presence of nationally important heritage assets or that otherwise indicates a very high heritage value. Very high value may occasionally exist in landscapes with no such designation, where the Landscape Character Assessment or Historic Environment Assessment indicates an area as being of particular high sensitivity or international or national rarity.

High	Landscape Character Assessments that identify an Area of being of high sensitivity e.g. good condition and/or strong strength of character or of particular local value. The presence of many nationally important heritage assets that indicates a landscape of high heritage value or a high historic landscape character value. Areas with local landscape designations may indicate a High value, but weight should also be given to the Landscape Character Assessment to determine the specific value.
Medium	Landscape type or area is identified as medium sensitivity (e.g. having a moderate condition and/or strength of character) including judgements within relevant Landscape Character Assessments as of medium sensitivity. The landscape likely to exhibit some damage or deterioration but may have some individual features of local rarity or value. The presence of regionally or locally important heritage assets or Historic Landscape Character Areas that indicate a moderate heritage or historic landscape character value.
Low	Landscape type or area is identified as having low sensitivity (e.g. poor condition and/or weak strength of character). Landscapes will typically illustrate clear indication of damage, deterioration, and limited visual cohesion. The landscape is likely to have limited heritage value or has notably deteriorated.

**Table LC2. Susceptibility of Landscape Receptor to Change**

Susceptibility to change	Example Criteria
Very High	A very limited ability of the landscape to accommodate a Logistics or HGV Park and dedicated Rail Freight shuttle terminal development
High	A fairly limited ability of the landscape to accommodate a Logistics or HGV Park and dedicated Rail Freight shuttle terminal development
Medium	A moderate ability of the landscape to accommodate a Logistics or HGV Park and dedicated Rail Freight shuttle terminal development
Low	A well-defined ability of the landscape to accommodate a Logistics or HGV Park and dedicated Rail Freight shuttle terminal development

In order to provide a measurement from which to evaluate the sensitivity of the landscape, criteria have been devised and set out in a descriptive scale. The scale, which takes account of the local context of the appraisal, is as follows:

**Table LC.3 –The sensitivity of the landscape**

Sensitivity	Typical Descriptors and Examples
<b>High</b>	Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be; <ul style="list-style-type: none"> <li>· Of high quality with distinctive elements and features making a positive contribution to character and sense of place.</li> </ul>

	<ul style="list-style-type: none"> <li>• Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale.</li> <li>• Areas of special recognised value through use, perception or historic and cultural associations.</li> <li>• Likely to contain features and elements that are rare and could not be replaced.</li> </ul>
<b>Medium</b>	<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"> <li>• Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place.</li> <li>• locally designated, or their value may be expressed through non-statutory local publications.</li> <li>• Containing some features of value through use, perception or historic and cultural associations.</li> <li>• Likely to contain some features and elements that could not be replaced.</li> </ul>
<b>Low</b>	<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"> <li>• Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place.</li> <li>• Not designated.</li> <li>• Containing few, if any, features of value through use, perception or historic and cultural associations.</li> <li>• Likely to contain few, if any, features and elements that could not be replaced.</li> </ul>

When considering the magnitude of any identified likely effects judgements about the size or scale will take account of:

- *‘The extent of the existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;*
- *the degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones-for example, removal of hedges may change a small-scale, intimate landscape into a large scale, open one;*
- *whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.’*

**Table LC4 below provides example criteria for size and scale of effect utilised in considering judgements**

Size/Scale of Change	Example Criteria
Very High	The proposals constitute a very major change to the key characteristics and attributes of the landscape type or area, resulting in total loss or permanent alteration to existing landscape features and forming a dominant new feature in the landscape.
High	The proposals constitute a major change to the key characteristics and attributes of the landscape type or area, resulting in major loss or permanent alteration to existing landscape features and forming a prominent new feature in the landscape.
Medium	The proposals constitute a noticeable change to the key characteristics and attributes of the landscape type or area, resulting in a conspicuous loss or alteration to existing landscape features and forming a new feature in the landscape.
Low	The proposals constitute a minor change to the key characteristics and attributes of the landscape type or area, resulting in limited loss or alteration to existing landscape features and forming a minor new feature in the landscape.
Negligible	The proposals constitute little discernible change to the key characteristics and attributes of the landscape type or area, resulting in no loss or permanent alteration to existing landscape features and forming a barely discernible new feature in the landscape.

The geographical extent over which the landscape effects will be felt will also be considered including reference as to whether the effect of the specific development are localised or are over a wide geographical area.

**Table LC5 below provides example criteria for geographical extent of effect utilised in considering judgements**

Geographical Influence	Example Criteria
Very High	Effects experienced over an extensive area of a district level landscape character area, where this is likely to have an evident effect at the national level of landscape character.
High	Effects experienced where changes would occur over large parts of a landscape character area.
Medium	A moderate extent of a landscape character area is affected.
Low	Effects limited to a localised area and small proportion of the overall landscape character area.
Very Low	Effects limited to a very restricted extent, sufficient that there is little discernible influence on the character of the landscape character area.

The duration of landscape effects will be described using categories such as short, medium or long term. Short term is defined in this assessment as zero to five years, medium term five to ten years and long term 10 to 25 years. Reversibility will also be considered and this will be based upon a judgement about 'the prospects and the practicality of the particular effect being reversed in for example a generation e.g. wind energy projects of often argued to be reversible due to the limited life and that they will be removed/and/or land reinstated, whereas housing developments are normally considered to be permanent.

**Table LC6 below provides example criteria for duration of effect utilised in considering judgements**

Duration & Reversibility	Example Criteria
Very High	Long term development (over 30 years) and permanent
High	Medium term development (10 to 30 years) and very difficult to reverse or long term development (over 30 years) and partially reversible
Medium	Medium term development (10 to 30 years) and partially reversible or short term development (1 to 10 years) and very difficult to reverse or long term development (over 30 years) and fully reversible
Low	Medium term development (10 to 30 years) and fully reversible or short term development (1 to 15 years) and partially reversible
Very Low	Short term development (1 to 15 years) and fully reversible

In order to provide a measurement from which to evaluate the magnitude of change to the landscape, criteria have been devised and set out in a descriptive scale. The scale, which takes account of the local context of the appraisal, is as follows:

**Table LC7 Magnitude of change to the landscape**

Magnitude of Impact	Example Criteria Descriptors
<b>High Negative</b>	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.
<b>Medium Negative</b>	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.
<b>Low Negative</b>	Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.
<b>Negligible</b>	No noticeable loss, damage or alteration to character or features or elements.
<b>Low Positive</b>	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.

<b>Medium Positive</b>	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.
<b>High Positive</b>	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.

**Step 2 –Combining the Judgements**

A professional judgement will be made based upon the combination/consideration of these factors, to determine the level of effect on the identified landscape assets/ receptors and whether the effects are likely to be negative or positive. The Level of effect scale being employed for this project is provided below:

**Table LC8 Overall level of landscape effect**

<b>Severe Adverse(Negative) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Be at complete variance with the character of the landscape.</li> <li>• Cause the integrity of characteristic features and elements to be lost.</li> <li>• Cause the sense of place or local distinctiveness of a whole character area to be lost</li> <li>• In terms of magnitude, are likely to, relate to all or very large parts/ areas or extent of the receptor; very 'large scale'.</li> </ul>
<b>Major (Negative) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Be at considerable variance with the character.of the landscape.</li> <li>• Degrade or diminish the integrity of a range of characteristic features and elements.</li> <li>• Damage the sense of place or local distinctiveness of an area.</li> <li>• In terms of magnitude, are likely to, relate to large parts/ areas or extent of the receptor; 'large scale'.</li> </ul>
<b>Moderate to Major Adverse</b>	<p>The project proposals:</p> <ul style="list-style-type: none"> <li>• Are likely to cause effects that meet some of the criteria from the above and below categories</li> </ul>
<b>Moderate Adverse(Negative) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Conflict with the character of the landscape.</li> <li>• Have an adverse impact on characteristic features or elements.</li> </ul>



	<ul style="list-style-type: none"> <li>• Diminish the sense of place or local distinctiveness of an area.</li> <li>• In terms of magnitude, are likely to relate to some parts/ areas or extent of the receptor.</li> </ul>
<b>Minor to Moderate Adverse(Negative) Effect</b>	<p>The proposals:</p> <ul style="list-style-type: none"> <li>• Are likely to cause effects that meet the criteria from some of the above and below categories</li> </ul>
<b>Minor Adverse (Negative) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Not quite fit the character of the landscape.</li> <li>• Be at variance with characteristic features and elements.</li> <li>• Detract from the sense of place or local distinctiveness of an area.</li> <li>• In terms of magnitude, are likely to, relate to small parts/ areas or limited extents of the receptor; ‘small scale’.</li> </ul>
<b>Neutral Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Maintain the character (including quality and value) of the landscape.</li> <li>• Blend in with characteristic features and elements.</li> <li>• Enable a sense of place or local distinctiveness to be retained.</li> <li>• In terms of magnitude, are likely to, relate to very small parts/ areas or extent of the receptor; ‘very small scale’.</li> <li>• Or, a change which has positive and negative effects that balance each other out.</li> </ul>
<b>Minor Beneficial (Positive) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Complement the character (including quality and value) of the landscape.</li> <li>• Maintain or enhance characteristic features and elements.</li> <li>• Enable some sense of place or local distinctiveness to be restored.</li> <li>• Enable some (‘small scale’ in terms of magnitude) restoration of established characteristic features partially lost through other land uses.</li> </ul>
<b>Moderate Beneficial (Positive) Effect</b>	<p>The project would:</p>

	<ul style="list-style-type: none"> <li>• Improve the character of the landscape.</li> <li>• Enable the creation, repair, conservation or restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development.</li> <li>• Enable a sense of place or local distinctiveness to be restored.</li> <li>• Enable good creation, repair, conservation or restoration of valued characteristic features partially lost through other land uses.</li> </ul>
<b>Beneficial (Positive) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Enhance the character of the landscape..</li> <li>• Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development.</li> <li>• Enable a sense of place or local distinctiveness to be enhanced.</li> <li>• Enable significant ('large scale' in terms of magnitude) creation, repair, conservation or restoration of valued characteristic features partially lost through other land uses.</li> </ul>
<b>Very Large Beneficial (Positive) Effect</b>	<p>The project would:</p> <ul style="list-style-type: none"> <li>• Greatly enhance the character of the landscape.</li> <li>• Create an iconic high quality feature and/or series of elements.</li> <li>• Enable a sense of place or local distinctiveness to be created or greatly enhanced across the whole of a character area.</li> </ul>

Identification of Potential Visual Effects

An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity' (GLVIA 3rd Edition P98 para 6.1)

Information about the development will be used to identify the likely interactions between the development and its visual receptors within the study area. The nature of effect during the construction, operation and decommissioning stages of the scheme for each visual receptor will be considered.

In order to focus the assessment on key visual issues, any effects that have been 'scoped out', because they have been judged to be insignificant or unlikely to occur, will be described. In addition, other effects that have been addressed by amendments to the scheme design through the iterative design/assessment process will also be identified.

The step process identified in the GLVIA 3<sup>rd</sup> edition, Chapter 3, will then be followed to explain judgements about the nature of the landscape receptor (or its sensitivity) and the nature of the effect on it (magnitude) and these will be combined to establish the level of the effect anticipated.

Step 1- Assess against agreed criteria

The initial step will be ‘to consider each effect in terms of its sensitivity made up of judgements about:

- the susceptibility of the receptor to the type of change arising from the specific proposal ; and
- the value attached to the receptor;

and secondly its magnitude made up of judgements about :

- the size and scale of the effect eg. whether there is complete loss of a particular element of the landscape or view or a minor change;
- the geographical extent of the area that will be affected; and
- the duration of the effect and its reversibility’.

The assessment of visual sensitivity is dependent on a combined judgement based upon the location and context of the viewpoint and the recognised importance of the view (value) and the expectations and occupation/activity of the receptor, or susceptibility, to the development being proposed. The most sensitive receptors may include users of casual outdoor recreational facilities such as public footpaths, who are focused on the landscape; communities where the development results in changes in the landscape setting or valued views; occupiers of residential properties whose views are affected by the development. The least sensitive receptors are likely to be those at work or travelling through a landscape by road or train particularly where seen from more distant views.

Example descriptors/criteria used for value, susceptibility and Sensitivity used to inform the assessment judgements/conclusions summarised in the Tables in the Volume 3, Technical Appendix F are provided below:

**Table VI Value of Visual Receptor to Change**

Value of view	Example Criteria
High	Views from publicised vantage points and of regional and sub-regional value. Tourist attractions / historic estates /statutory heritage asset with a specific vista or focused views. Particularly noteworthy public views from national trails, National Parks or AONBs or statutory heritage assets i.e. more than local value & could be expected to be regularly used. Windows from residential properties specifically designed to take advantage of a particular view.
Medium	Locally known or valued viewpoints. Views from promoted public rights of way or clear evidence of regular use and areas of informal open space. Views from regularly used rooms or living space. Panoramic view, vista or other noteworthy view from active recreation areas or transport routes.

Low	View is not publicised and/or that there is relatively limited evidence of being regularly used. Visually degraded locations. View from small windows or otherwise assumed as not forming the main living or work spaces. Views of little noteworthiness from areas of active recreation or transport routes.
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**Table V2 Susceptibility of Visual Receptor to Change**

Susceptibility of visual receptor to change	Example Criteria
High	Residential properties. Areas of open space where informal recreation is the main activity e.g. country parks and public open space. Users of public rights of way. Recreational activity where the primary enjoyment comes from the view. General views from heritage assets or attractions.
Medium	Areas of outdoor sport or active recreation where appreciation of views forms part of the experience e.g. golf courses; pedestrians using footways along roads; vehicular users and cyclists on roads; and rail passengers.
Low	Areas of active sport or play where the view does not form part of the experience e.g. football, rugby, play equipment. Commercial premises and areas of employment, where the view has limited value in relation to the activity being undertaken. There may be specific locations where buildings and the type of employment has been designed to enhance the quality of working life, in which case a higher level sensitivity would be applicable.

In order to provide a measurement from which to evaluate the sensitivity of visual receptors,, criteria have been devised and set out in a descriptive scale. The scale, which takes account of the local context of the appraisal, is as follows:

**Table V3 –The sensitivity of visual receptors**

- High** Likely to be a view gained from residents, communities, and walkers or visitors to heritage assets at valued viewpoints in a recognised high quality landscape such as from a National Park, Area of Outstanding Natural Beauty, who are focussed on the landscape.
- Medium** Likely to be a view which is from residents, communities and walkers or visitors to heritage assets within a moderate quality landscape and a view from travellers on roads within a moderate quality landscape with some existing landscape elements of quality;
- Low** Likely to be a view which is from people engaged in outdoor sport or at their place of work within a moderate quality landscape with some existing landscape elements of quality, or from a view experienced by travellers on roads within a moderate quality landscape;

**Neutral** Likely to be a view which is transient from people within a degraded landscape and there are existing degraded elements in the landscape;

In order to establish the magnitude of visual effects each of the identified likely effects 'needs to be evaluated in terms of its size or scale, the geographical extent of the are influenced and its duration and reversibility.' (GLVIA 3<sup>rd</sup> Edition, P115, Paragraph 6.38).

Judging the magnitude of visual effects identified in terms of size or scale will take account of:

- 'The scale of the change in the view with respect to loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development;
- The degree of contrast or integration of any of the new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of scale and mass, line, height, colour and texture;
- The nature of the proposed development, in terms of the relative amount of time over which it will be experienced and whether views will be full partial or glimpses;'(GLVIA 3<sup>rd</sup> Edition, P115, Paragraph 6.39).

**Table V4 below provides example criteria for size and scale of effect utilised in considering judgements**

Size/Scale of Change	Example Criteria
Very High	The proposed development would become the most dominant feature in the view and that completely contrasts with the other existing features in the view. The contrasting features of the development would be fully visible.
High	The proposal development would constitute a major change to the view, forming a prominent new feature in the view that noticeably contrasts with other existing features in the view. The development would be predominantly visible.
Medium	The proposals development would form a noticeable change to the view, forming a conspicuous new feature in the view that partially contrasts or harmonises with other features in the view. The contrasting features of the development would be partially visible.
Low	The proposal development would constitute a small change to the view, forming a minor new feature in the view that largely integrates with its surroundings with little discernible change. This could also be a result of being a glimpsed or filtered view through vegetation and/or at some distance relative to its scale.
Very Low	The proposed development would be a barely discernible change to the view, which could e.g. be due to a very filtered view through vegetation or considerable distance relative to scale.

Judgements regarding geographical extent of a visual effect will vary with different viewpoints and are likely to reflect:

- 'The angle of view in relation to the main activity of the receptor;

- *The distance of the viewpoint from the proposed development;*
- *The extent of the area over which the changes would be visible'.(GLVIA 3<sup>rd</sup> Edition, P115, Paragraph 6.40)*

**Table V5 below provides example criteria for geographical extent of effect utilised in considering judgements**

Geographical Influence	Example Criteria
Very High	The development effects all or nearly all of the view and forms the primary focus of the view to the extent that it is overwhelming. It is likely that the view is within the site or very close to the site.
High	The development affects a large extent of the view and at the centre of the view. It is likely that the view is close to the site or possibly in the site.
Medium	The development affects a moderate extent of the view and lies near the centre of the view or at a slightly oblique angle. It is likely that this is a localised view.
Low	The development effects a small extent of the view and and/or at a moderately oblique angle. It is likely that the development is in the mid-distance of the view.
Very Low	The development effects a very small extent of the view and and/or at a very oblique angle. It is likely that the development is in the far distance of the view.

The duration of a visual effect will be described using categories such as short, medium or long term. Short term is defined in this assessment as zero to five years, medium term five to ten years and long term 10 to 25 years. Reversibility will also be considered and this will be based upon a judgement about 'the prospects and the practicality of the particular effect being reversed in for example a generation e.g. wind energy projects of often argued to be reversible due to the limited life and that they will be removed/and/or land reinstated, whereas housing developments are normally considered to be permanent.

**Table V6 below provides example criteria for duration of effect utilised in considering judgements**

Duration and Reversibility	Criteria
Very High	Long term development (over 30 years) and very difficult to reverse
High	Medium term development (10 to 30 years) and very difficult to reverse or long term development (over 25 years) and partially reversible
Medium	Medium term development (10 to 30 years) and partially reversible or short term development (1 to 10 years) and very difficult to reverse or long term development (over 30 years) and fully reversible
Low	Medium term development (10 to 30 years) and fully reversible or short term development (1 to 10 years) and partially reversible
Very Low	Short term development (1 to 10 years) and fully reversible



In order to provide a measurement from which to evaluate the magnitude of change effecting visual receptors, criteria (which can be positive or negative) have been devised and set out in a descriptive scale. The scale, which takes account of the local context of the appraisal, is as follows:

**Table V7 The magnitude of change effecting visual receptors**

Magnitude of impact	Typical criteria descriptors
<b>High</b>	The project, or a part of it, would become the dominant feature or focal point of the view.
<b>Medium</b>	The project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
<b>Low</b>	The project, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	No discernible change in the view

**Step 2 –Combining the Judgements**

A professional judgement will be made based upon the combination/consideration of these factors, to determine the level of effect on the identified visual receptors and whether the effects are likely to be negative or positive. The Level of Effect scale being employed for this project is provided below:

**Table V8 The overall level of visual effect**

<b>Major Adverse(Negative) Effect</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Cause a large deterioration in the existing views;</li> <li>• In terms of magnitude, would likely relate to the majority of views afforded by the receptor group and/ or to all or very large extents of each of those views;</li> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of higher value or to receptors and their views considered to be very susceptible to this form of development;</li> <li>• Effects are likely to be long term and may be permanent.</li> </ul>
<b>Moderate to Major Adverse(Negative) Effect</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Include some criteria from the above and below levels.</li> </ul>
<b>Moderate Adverse(Negative) Effect</b>	<p>The development would typically:</p> <ul style="list-style-type: none"> <li>• Cause a noticeable deterioration in the existing views;</li> <li>• In terms of magnitude, would likely relate to a moderate proportion of range of views afforded by the receptor</li> </ul>

	<p>group and/ or to a large proportion of each of those views – ‘medium scale’;</p> <ul style="list-style-type: none"> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of more moderate value or to receptors and their views considered to be have a medium level of susceptibility to this form of development;</li> <li>• Effects are likely to be long term but moderated by smaller scales of change or may be short term but with larger scales of change.</li> </ul>
<b>Minor to Moderate Adverse (Negative) Effect</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Include some criteria from the above and below levels.</li> </ul>
<b>Minor Adverse (Negative) Effect</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Cause a barely perceptible deterioration in the existing views;</li> <li>• In terms of magnitude, would likely relate to a small proportion of range of views afforded by the receptor group and/ or to a small proportion of each of those views – ‘small scale’;</li> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of more lower value or to receptors and their views considered to be have a low level of susceptibility to this form of development;</li> <li>• Effects are likely to be long term but moderated by smaller scales of change or may be short term but with larger scales of change.</li> <li>• Effects may be long term but of negligible size/ scale or short term and of a larger scale of change.</li> </ul>
<b>Neutral</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Cause no discernible deterioration or improvement to the existing view being experienced.</li> <li>• Or a change which has positive and negative effects that balance each other out.</li> </ul>
<b>Minor Beneficial (Positive) Effect</b>	<p>The proposals would typically:</p> <ul style="list-style-type: none"> <li>• Cause a barely perceptible improvement in the existing views;</li> <li>• In terms of magnitude, would likely relate to a small proportion of range of views afforded by the receptor group and/ or to a small proportion of each of those views – ‘small scale’;</li> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of more lower value or to receptors and their views considered to be have a low level of susceptible to this form of</li> </ul>

	<p>development;</p> <ul style="list-style-type: none"> <li>• Effects are likely to be long term but moderated by smaller scales of change or may be short term but with larger scales of change.</li> <li>• Effects may be long term but of negligible size/ scale or short term and of a larger scale of change.</li> </ul>
<b>Minor to Moderate Beneficial (Positive) Effect</b>	<p>The proposals would:</p> <ul style="list-style-type: none"> <li>• Include some criteria from the above and below levels.</li> </ul>
<b>Moderate Beneficial (Positive) Effect</b>	<p>The proposals would:</p> <ul style="list-style-type: none"> <li>• Cause a noticeable improvement in the existing views;</li> <li>• In terms of magnitude, would likely relate to a moderate proportion of range of views afforded by the receptor group and/ or to a large proportion of each of those views – ‘medium scale’;</li> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of more moderate value or to receptors and their views considered to be have a medium level of susceptible to this form of development;</li> <li>• Effects are likely to be long term but moderated by smaller scales of change or may be short term but with larger scales of change.</li> </ul>
<b>Moderate to Major Beneficial(Positive) Effect</b>	<p>The proposals would:</p> <ul style="list-style-type: none"> <li>• Include some criteria from the above and below levels.</li> </ul>
<b>Large Beneficial (Positive) Effect</b>	<p>The proposals would:</p> <ul style="list-style-type: none"> <li>• Cause a large improvement in the existing views;</li> <li>• In terms of magnitude, would likely relate to the majority of views afforded by the receptor group and/ or to all or very large extents of each of those views;</li> <li>• In terms of sensitivity, would likely to affect views afforded by receptors which are deemed to be of higher value or to receptors and their views considered to be very susceptible to this form of development;</li> <li>• Effects are likely to be long term and may be permanent.</li> </ul>

Identification and Assessment of the overall level of Landscape and Visual Effects

This section will include a summary narrative statement of the final conclusions about overall level of landscape and Visual Effect (beneficial or adverse) which would result from the scheme proposals. The judgement will be made with reference to the above stated scale.

### Final statement of the likely significant Landscape and Visual Effects.

GLVIA 3<sup>rd</sup> Edition p91 Para 5.53 states that ‘to draw final conclusions about significance , the separate judgements about the sensitivity of receptors and the magnitude of effects need to be combined to allow a final judgement to be made about whether each effect is significant or not, as required by the EIA Regulations’.

GLVIA 3<sup>rd</sup> Edition p91 Para 5.54 also states that ‘Significance can only be defined in relation to each development and its specific location. It is for each assessment to determine how the judgements about landscape receptors and landscape effects should be combined to arrive at significance and to explain how the conclusions have been derived.

In this specific topic assessment, to establish whether an overall landscape or visual level of effect is significant or not, an effect above moderate is considered to be significant and an important consideration at a local and district scale and if adverse, may become a key factor in the decision making process. A narrative is used to explain the overall conclusions reached.

### Glossary

- The terms used within the Landscape and visual assessment reflect the definitions contained within the Glossary from ‘The Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, prepared by the Landscape Institute and Institute of Environmental Management and Assessment (April 2013)’ starting on page 155.

### Cumulative Effects on Landscape Character and Visual Context

Cumulative effects are defined here as the combined effect of a set of developments taken together. The scope of potential additional developments will be agreed with the Local Planning Authority but is intended to be limited to developments which have an existing planning approval or which are due for determination at the time of writing.

The study area for assessment of cumulative impacts geographic extent will be limited to the following criteria:

- **Landscape Character** – Limited to additional developments within the same locally defined Landscape Character Area (LCA).
- **Visual Context** – Limited to additional developments within the ZTV of the main development.

Landscape and visual effects will be identified where the combined impact from the additional developments with the main development are considered to be different to the effects of the main development alone. In the case of visual effects, the nature of effect will also be described either as:

- In **combination**, where more than one development is seen at one time within a single view;
- In **succession**, where more than one development is seen at one time from the same viewpoint but at different orientations;
- In **sequence**, where multiple developments can be seen along a route.

A summary of the Level of effects on landscape and visual receptors will be provided based on the criteria, previously defined. Any opportunities for mitigation of cumulative impacts, such as community compensation schemes or inter-developer partnerships will be identified and reviewed as part of the iterative design process.

## **Appendix A - Nicholas Pearson Associates Visually Verifiable Montage Methodology**

### **Introduction**

Nicholas Pearson Associates was established in 1982. The Company has a reputation within the environmental and landscape consultancy field for quality of service, attention to detail and achievement in terms of successful promotion of client's aspirations.

The methodology used by Nicholas Pearson Associates accords with the Third Edition of the good practice Guidelines for Landscape and Visual Impact Assessment 2013; produced by the Landscape Institute and Institute of Environmental Management & Assessment and LI Advice Note 01/11. For applications prepared for wind farms or similar, we adhere to the Scottish Natural Heritage, Visual Representation of Wind Farms Version, 2.1 December 2014.

The purpose of a Visually Verifiable Montage (VVM) is to, impartially represent the case (for or against); to show the proposed development, as it would appear in reality using a baseline of verifiable visual data and information. A VVM combines photographic views with accurate CAD 3-D representation of the proposals to an agreed level of detail. This verifiable image, using quantifiable data, can then be used by others to scrutinise the work, if required, without its veracity being questioned.

Nicholas Pearson Associates have produced numerous VVMs for urban and rural developments, and have successfully presented these for expert witness evidence at public inquiry. We are not only capable of undertaking VVMs but can also use our experience to assess, verify and challenge work by others.

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### **Specific project information**

Site Location:

Dates of visit:

General weather conditions:

Equipment not identified in standard methodology:

### **Photography**

Nicholas Pearson Associates use Digital Single Lens Reflex cameras to ensure that the printed images are of a size and resolution which best represents the chosen viewpoint. Occasionally, alternative makes of Digital SLRs may be used; however this will be stated on the final documentation.

### **Equipment:**

- *Canon 5D full frame digital SLR camera*
- *Canon 50mm f1.4 lens*
- *Canon 28mm*
- *Alternative lenses: hired upon requirement*
- *Alternative cameras: Canon EOS 450D & 1000D*
- *Tripod*
- *NN4-D16-Nodal Ninja NN4 Panorama head with RD-16 rotator base*
- *NN-EZ-Nodal Ninja EZ Leveller MKII*
- *Plumb bob*
- *Compass*



LVIA & VVM photographs are taken using the most appropriate combination of lens focal lengths to ensure that the field of view covers the proposed scheme environment or landscape context. Photographs are predominantly taken in landscape format unless circumstances dictate an alternative. Using Ordnance Survey mapping or detailed topographic surveys, Cameras are located and mounted on a tripod at height of 1.6m above existing ground level, which best represents the average human eye level. A leveller is used to ensure that the camera is horizontal and a panoramic head is necessary when capturing panoramas. A photograph of the tripod in situ is taken and a plumb bob is used to accurately locate the camera on the ground if the location is to be surveyed.

Photographs are taken; preferably using an ISO of 100 with an aperture suitable to capture the greatest depth of field the photographs are stored as a RAW format using manual settings to enable the best quality results. The photographer will make note of the weather conditions and direction of view. All other details relating to the photograph are stored in the image EXIF data. If necessary, the original RAW file can be submitted as part of the verification process.

Suitable weather conditions are sought so that the proposals may be clearly visible in the context of the view. It should be noted that taking photographs looking south during the winter, due to the low angle of the sun can be problematic. Therefore we endeavour to take the photographs at the appropriate time of day to reduce the chance of the site being in shadow or backlit. Each photograph, or combinations of photographs, correctly portrays the view which is obtained at each representative viewpoint whilst avoiding obvious obstructions. The location of each viewpoint is accurately located on a survey.

### **Baseline data**

- *Topographic site survey*
- *Terrain 5 DTM –The increased quality and resolution of this data includes landform details not identified on standard 5m OS contours such as road and rail embankments.*
- *OS Landform Panorama - Used for distant landforms*
- *OS Mastermap – The 1:1250 data includes field boundaries, buildings, roads etc. All beneficial when aligning the 3D cameras. This data is superimposed onto the DTM.*
- *Aerial Photography – Useful to help locate specific features not available on mapping data such as trees and lampposts etc.*

### **Survey**

To assist in the verification process, the topographic survey is used to identify 3D point locations. In many cases, these may include existing building ridgelines, tree canopies, lighting columns, or similar such details. Further topographic surveys can be carried out during or after our site visit to ensure we have as much detailed data as possible. Data can include Camera locations and specific 3D points specified by us to assist in the camera matching process.

For more distant views, compass bearings to distinctive elements in the view will also be used to assist with the alignment of the view. 12 figure OS grid reference coordinates, altitude Above Ordnance Datum (m AOD) and GPS locations can also be recorded.

We also obtain site reference photographs of local building materials, landscape character as well as capturing elements within the view which may be revealed or reflected by the proposed scheme

### **Post photographic Production**

The original Canon RAW files are processed in Adobe Photoshop to adjust White Balance, colour accuracy, sharpness. The images undergo further correction procedure to ensure the horizon is precisely horizontal and any barrel distortion is compensated for.

All final images are output as uncompressed Jpeg or Tiff files. The individual photographs are all equally sized according to the preferred reproduction size. The corrected baseline image, which is known as the background plate, is then ready for the visualisation work to begin.

### **3D Model & height verification**

The following software can be used for preparing the 3D Model data:

- *AutoCAD 2015*
- *Autodesk Civil 3D*
- *Sketch up 2014*
- *Revit Architecture*
- *LSS by McCarthy Taylor Systems*
- *3D Studio MAX Design*

The appropriate software is used for the first stage of the model construction process prior to constructing an existing base model using 3D Studio Max Design. Initially, the base model is constructed of all the existing elements required to map the photographic viewpoints to the verified view.

The architects / engineers and landscape proposals are all combined with the site survey and mapping data, so that they correspond with each other. Any additional data can then be applied to the 3D model at this stage to create a basic skeleton for the final solid rendered model. The co-ordinate system is used when doing this, so that information regarding viewpoints can be accurately located such as the viewpoint markers.

The heights and levels of the key features of the proposed scheme are then cross checked against the design drawings and sections to check they correspond.

### **Camera Matching**

Irrespective of whether the final VVM is output as a single or composite panoramic image, each Verified View is based upon a single photographic frame.

The viewpoint markers are used to tie the photograph to the CAD Camera view. These are usually surveyed items such as lamp posts, walls, field boundaries and buildings; in essence, anything that has a known location. At least six points are required to be as accurate as possible. Some of which should be at a height above ground level i.e. tops of lampposts and buildings. The background plate photograph is imported into 3D Studio Max, to verify the accuracy of the match.

In situations where there are no existing physical details to use, survey posts are located at varying heights and distances within the view and then included into the digital topographic survey for use later in the process.

The location and angle of view can also be checked by triangulating the position. This is a reliable method successfully used for location finding in the field.

A wireframe model of the existing and proposed model is rendered, overlaid onto the photograph and issued for approval. This is carried out so that the client and design team can confirm that they are satisfied with the camera matching and mass/scale of the scheme before proceeding to the next stage.

### **Texturing and Rendering ( In depiction of photorealistic images)**

3D Studio Max Design is then used for applying the photorealistic surfaces and materials to the 3D model. Once this is complete, the lighting can be added to create a realistic scene. The exact reactions to sunlight can be calculated by using the software's ability to place it in the direction according to the time of day/month etc. Additional transparent lighting effects are also added to add the final touches.

Rendering is the term used to describe the process of generating a two dimensional rendered bitmap image from the 3D model.

Texturing is the application of photorealistic surfaces to the 3D model to reflect what the proposed scheme would look like once constructed. Using information provided by the designers and manufacturers plus samples (e.g. types of glass metal, brickworks etc) we produce the qualities and appearance which most closely represents the real world materials.

Lighting and Sun direction is an important factor in representing the scheme proposals as they would appear in the photograph. From the photograph META data and observations in the field; the sunlight and daylight system in 3D Studio Max is used to accurately simulate the real world lighting as it was when the photograph was taken. The Sunlight and Daylight System calculates the movement of the sun over the earth at a given location. In addition, the software reproduces the ambient lighting, shadows and reflections.

The exact resolution of the photograph is noted and used as the size for the final rendered output of the 3D Model view so that the two overlay each other precisely.

## **Post Production**

Adobe Photoshop CC is used to blend the modelled information with the existing base line / base plate photograph. Various masks are created to position the development behind any existing details. Colour correction is then applied if necessary to give it that “lived in look”. Finally, proposed vegetation can be introduced along with the removal of any existing details on site that would be removed during the development process.

The blending of any additional imagery and rendered models to provide context and realism is undertaken before the final image is completed, to allow an accurate “before & after” comparison.

## **Reproduction and presentation material**

Our chosen desktop publishing software is Adobe In-Design. All our VVM views are presented at 100%, suitable for A3 / A2 / A1 reproduction.

Our images have a target resolution of 300PPI; suitable for high quality printing when reproduced on printers with resolutions of up to 2400DPI.

- *Nicholas Pearson Associates present all LVIA and VVM documents incorporating photographs and VVMs at A3 or A1.*
- *All must be reproduced at 100% of original print size unless otherwise stated.*
- *Once an electronic document has been issued, Nicholas Pearson Associates accept no responsibility for printing quality should the documents be printed on a third party printer which does not meet the required standard.*

Each viewpoint is accompanied by a viewpoint location plan and, if requested, can be supplied with a photograph of camera location.

## **Viewing procedure**

The purpose is to reproduce the represented view or VVM so that it “correctly reconstructs the perspective seen from the location from which the photograph was taken”

For the majority of VVMs based upon a 28mm lens or 50mm lens, the images will be reproduced at A3 and suitable for viewing at between 300mm & 500mm. All VVMs will be reproduced with the recommended principle viewing distance noted.

When viewing the represented views and VVMs, the viewer must keep their head motionless and fix their eyes on the centre of the view. When comparing the view in the field, the viewer must also keep the head motionless. This ensures that the represented view falls within the human field of view.

It must be borne in mind that VVMs are not intended to replace the real-time visual experience and that a consensus can only be made by comparing the printed images in the field from the viewpoint whilst observing the correct viewing procedure.

## **Glossary**

AOD: Above Ordnance Datum

AGL: Above ground level

FOV: Field of View

HFOV: Horizontal field of view

VFOV: Vertical field of view

VVM: Visually Verifiable Montage

CAD: Computer Aided Design

GPS: Global Positioning System

LVIA: Landscape and Visual Impact Assessment

EXIF: Exchangeable image file format

META Data: Provides detailed Image data

RAW: Uncompressed file format containing the highest quality image

Focal length: Distance between the lens and image sensor

ISO: Controls camera sensor sensitivity

Aperture: An opening through which light travels

Shutter speed: Exposure time

## Appendix F 3: Landscape character assessment site survey forms



LITTLERWORTH LOWLANDS LCA (PART TO THE SOUTH EAST OF MERE LAKE) ZONE 1

APPENDIX B

Lutterworth and Broughton Astley LCA

FIELD SURVEY RECORD

SHEET No. 16 Page 2 of 2

Date: 16 MAY 2014	Surveyors' Name/s: A. J. COOPER	National Typology Code:
Location: SOUTH EAST OF MERE LAKE		LDU Nos:
Landscape Character Area: LITTLERWORTH LOWLANDS (LCA)		
Conditions: Sunny/clear		

STRENGTH OF CHARACTER

<b>LANDFORM (S1)</b>	dominant prominent <b>apparent</b> (widespread/localised) insignificant
<b>Description:</b> flat gently undulating strongly undulating steep broad valley narrow valley plain plateau upland sloping	<b>Hydrology:</b> river stream ponds lakes reservoir wetlands other Degree of slope: 1 in 20      Altitude: 120 - 125 AOD

LANDCOVER (S2)

<b>LANDCOVER (S2)</b>	dominant prominent <b>apparent</b> (widespread/localised) insignificant
<b>Description:</b> open farmland treed farmland wooded farmland parkland woodland grassland / common open water or wetlands	<b>Primary land use:</b> commercial / industrial farmland: arable/pastoral/mixed forestry: broadleaf/conifer/mixed common or green: grassed/treed nursery / allotments / orchard recreation or amenity: type reservoir disturbed type: water treatment, private grass/young trees
<b>Associated features:</b> e.g. glasshouses/ marina. Services Farm	<b>Secondary land use</b> (select from above) grass / treed

<b>Woodland cover:</b> extensive interlocking linear discrete fragmented	<b>Species:</b>	<b>Field boundaries (in order of prominence):</b> hedgerow (with/without trees) tree rows hedgebank fence wall/wet ditch other: no hedgerows, tree belts (high/medium/low)	<b>Species:</b>
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HISTORICAL PATTERN (S3)

<b>HISTORICAL PATTERN (S3)</b>	dominant prominent <b>apparent</b> (widespread/localised) insignificant
<b>Description:</b> Historic pattern lost due to previous land uses and changes including introduction of Mere Lake, change of use to airfield, change of use to service farms for Magna Park. The above has led to field boundary loss, woodland loss, removal of farmland, change to context	

<b>Field pattern:</b> geometric (ordered) regular (rectilinear) subregular (interlocking - curved boundaries) irregular (organic, winding lanes) discontinuous (no discernable pattern)	<b>Transport pattern:</b> motorway A road B road track lane canal railway straight winding sinuous sunken
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<b>Field size:</b> 1- small < 2ha 2- small/medium 3- medium/large 4- large > 8ha	<b>Settlement:</b> Form: village / hamlet / isolated house or farm / other industrial Building style: vernacular / non-vernacular Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC Materials: walls and roof Cladding panels light or quadrished blue coloration
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<b>Verges:</b> absent variable uniform wide / medium / narrow ditched	<b>Country houses:</b> Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC Materials: N/A
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**Other built features (function, age and materials):**  
 Warehouse building @ - logistics operations cladding panels.  
 Services Farm @ - treatment of effluent

**Other comments e.g. cultural features**  
 Area cleared and partly excavated through airfield land use in war time and more recently as part of logistics park.

VISUAL AND SENSORY PERCEPTION

<b>Views of area from outside:</b> widely visible locally visible concealed	<b>Sense of enclosure:</b> confined contained open exposed
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<b>Tranquility (S4):</b> tranquil/distant/disordered Source: adjacent to service yard and roads Level and constancy: Moderate and disturbance frequent	<b>Rarity (S5):</b> unique rare unusual frequent
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Lutterworth Lowlands (LCA) (PART TO SOUTH EAST OF MERE LAKE)

**CONDITION**

**HISTORICAL INTEGRITY**

<b>Extent and type of landcover change (C1):</b> pasture to arable change in extent of woodland/tree cover on farmland loss of field boundaries parkland to farmland minerals other: <u>Arable to Airfield to Service Farm</u>	widespread localised insignificant	<b>Age structure of tree cover (C2):</b> over mature mature/young mixed	<b>Survival of cultural pattern (C5):</b> intact and well managed intact but poorly managed interrupted (gen. intact but locally interrupted) declining (boundaries poorly managed) relic <u>lost</u>
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Notes:

**ECOLOGICAL INTEGRITY**

<b>Extent of habitat/corridor survival (C3):</b> Widespread Linked Scattered relic	<b>Management of habitats (C4):</b> Good Not obvious <u>Average</u> Poor
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Notes:  
 Woodland more recently introduced and rough ground provides linked habitats around the settlement pond/lake. Woodland margins could be improved (single age). Mere Lake creates severance of grassland habitat but continuity of woodland habitats.

**VISUAL IMPACT**

<b>Impact of built development (C6):</b> Urban/Transport corridor/rural housing/ utilities/structures/other: <u>Warehouse buildings</u>	high moderate low	<b>Visual Unity (S6):</b> Unified Coherent Incoherent	high moderate low
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Notes:  
 Local setting heavily influenced by Magna Park buildings and infrastructure, Mere Lake and Service Farm. Establishing woodland, setting pond, rough grassland.

Boundary notes:  
 Strong visual containment afforded by surrounding woodland blocks and existing buildings as higher ground to south and east.

**CHARACTER SUMMARY**

STRENGTH OF CHARACTER	WEAK	MODERATE	STRONG
S1 Impact of landform* S2 Impact of landcover* S3 Historic pattern* S4 Tranquillity S5 Distinctiveness/rarity S6 Visual unity	Insignificant Insignificant Insignificant Discordant Frequent Incoherent	Apparent Apparent Apparent Moderate Unusual Coherent	Dominant/Prominent Dominant/Prominent Dominant/Prominent Tranquil Unique/rare Unified
<b>Totals</b> * Prime character categories if tie	✓ WEAK		

CONDITION	POOR	MODERATE	GOOD
C1 Landcover Change C2 Age Structure of Tree Cover* C3 Extent of semi-natural habitat survival* C4 Management of semi-natural habitats C5 Survival of cultural pattern (fields and hedges) C6 Impact of built development*	Widespread Overmature Relic Poor Declining/Relic <u>lost</u> High	Localised Mature or young Scattered Not obvious <u>average</u> Interrupted Moderate	Insignificant Mixed Widespread/Linked Good Intact Low
<b>Totals</b> * Prime condition categories if tie	WEAK — MODERATE		

<b>MATRIX</b>  Condition  appropriate in Scheme Design lie in this zone	Good	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	Moderate	Improve and reinforce	Improve and conserve	Conserve and restore
	Poor	Reconstruct	Improve and restore	Restore condition to maintain character
		Weak	Moderate	Strong
Strength of Character				

**SENSITIVITY CHECK**

Visual					Cultural				
Very Low	Low	Moderate	High	Very High	Very Low	Low	Moderate	High	Very High

Given significant woodland and building enclosure afforded to this area.

Historic features removed area changed and context changed significantly by construction of Bitterwell Airfield and Mere Lake in 1939.

However, moderated by some developing natural habitats.



LUTTERWORTH LEWLANDS LCA (PART TO THE SOUTH OF WASHA PARK) ZONE 2

APPENDIX B		FIELD SURVEY RECORD		SHEET No. 2 Page 1 of 2	
Lutterworth and Broughton Astley LCA		Date: 19/04/2015		Surveyors' Name/s: AFE	
Location: SOUTH OF WASHA PARK		National Typology Code:		LDU Nos:	
Landscape Character Area: LUTTERWORTH LEWLANDS LCA		Conditions:			
STRENGTH OF CHARACTER					
LANDFORM (S1)		dominant prominent <u>apparent (widespread/localised)</u> insignificant			
<b>Description:</b> flat <u>gently undulating</u> strongly undulating steep broad valley narrow valley plain plateau upland sloping		<b>Hydrology:</b> river stream ponds lakes reservoir wetlands other: <u>DITCHES</u>		Degree of slope: <u>1:120-1:225</u> Altitude: <u>128m - 117m</u>	
LANDCOVER (S2)		dominant prominent <u>apparent (widespread/localised)</u> insignificant			
<b>Description:</b> open farmland <u>treed farmland</u> wooded farmland parkland woodland grassland / common open water or <u>wetlands</u> <u>small depression to south</u>		<b>Primary land use:</b> commercial / industrial farmland: arable/pastoral/mixed <u>unimproved</u> forestry: broadleaf/conifer/mixed common or green: grassed/treed nursery / allotments / orchard recreation or amenity: type reservoir disturbed : type			
<b>Associated features:</b> e.g. glasshouses/ marina.		<b>Secondary land use</b> (select from above)			
<b>Woodland cover:</b> extensive interlocking <u>linear</u> <u>off site</u> discrete fragmented	<b>Species:</b> <u>NATIVE/PUNTAION MIXED</u>	<b>Field boundaries (in order of prominence):</b> <u>hedgerow</u> (with/without trees) tree rows hedgebank <u>fence</u> wall/wet ditch other (high/medium/low)	<b>Species:</b> <u>NATIVE</u>		
HISTORICAL PATTERN (S3)		dominant prominent <u>apparent (widespread/localised)</u> insignificant			
<b>Description:</b> organic <u>planned</u> unenclosed					
<b>Field pattern:</b> geometric (ordered) <u>regular (rectilinear)</u> subregular (interlocking - curved boundaries) irregular (organic, winding lanes) discontinuous (no discernable pattern)		<b>Transport pattern:</b> motorway <u>A road</u> B road <u>track / lane</u> canal railway		<u>straight</u> winding sinuous sunken	
<b>Field size:</b> 1- small < 2ha <u>2- small/medium</u> 3- medium/large 4- large > 8ha		<b>Settlement:</b> Form: village / hamlet / isolated house or farm/ other <u>office / warehouses</u> Building style: vernacular / <u>non-vernacular</u> Age: Tudor/Stuart/Georgian/ Victorian/Edwardian/20thC Materials: walls and roof			
<b>Verges:</b> absent variable uniform wide / medium / narrow <u>N/A</u> ditched		<b>Country houses:</b> Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC Materials: <u>N/A</u>			
<b>Other built features (function, age and materials):</b>					
<b>Other comments e.g. cultural features</b>					
VISUAL AND SENSORY PERCEPTION					
<b>Views of area from outside:</b> widely visible <u>locally visible</u> <u>to south and north</u> concealed		<b>Sense of enclosure:</b> confined <u>contained</u> <u>partially</u> open exposed			
<b>Tranquility (S4):</b> tranquil/distant/ <u>disorient</u> Source: <u>A4043 / A5</u> Level and constancy: <u>CONSTANT</u>		<b>Rarity (S5):</b> unique rare unusual <u>frequent</u>			



Lutterworth and Broughton Astley LCA (PART TO THE SOUTH OF WASHA PARK) ZONE 2

**CONDITION**

**HISTORICAL INTEGRITY**

<b>Extent and type of landcover change (C1):</b> pasture to arable change in extent of woodland/tree cover on farmland loss of field boundaries parkland to farmland minerals other <i>was farmland now unmanaged</i>	widespread localised insignificant	<b>Age structure of tree cover (C2):</b> over mature mature/young mixed	<b>Survival of cultural pattern (C5):</b> intact and well managed intact but poorly managed interrupted gen. intact but locally interrupted) declining (boundaries poorly managed) relic
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Notes:

**ECOLOGICAL INTEGRITY**

<b>Extent of habitat/corridor survival (C3):</b> Widespread Linked Scattered relic	<b>Management of habitats (C4):</b> Good Not obvious Poor
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Notes:

**VISUAL IMPACT**

<b>Impact of built development (C6):</b> Urban (transport corridor/rural housing/ utilities/structures/other) <i>W/warehouse/offices adjacent</i>	high moderate low	<b>Visual Unity (S6):</b> Unified coherent incoherent	high moderate low
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Notes:

Boundary notes:

**CHARACTER SUMMARY**

STRENGTH OF CHARACTER	WEAK	MODERATE	STRONG
S1 Impact of landform* S2 Impact of landcover* S3 Historic pattern* S4 Tranquillity S5 Distinctiveness/rarity S6 Visual unity	insignificant insignificant insignificant discordant frequent incoherent	Apparent Apparent Apparent Moderate Unusual Coherent	Dominant/Prominent Dominant/Prominent Dominant/Prominent Tranquil Unique/rare Unified
Totals * Prime character categories if tie	<b>WEAK</b>		

CONDITION	POOR	MODERATE	GOOD
C1 Landcover Change C2 Age Structure of Tree Cover* C3 Extent of semi-natural habitat survival* C4 Management of semi-natural habitats C5 Survival of cultural pattern (fields and hedges) C6 Impact of built development*	Widespread Overmature Relic Poor Declining/Relic High	Localised Mature or young Scattered Not obvious Interrupted Moderate	Insignificant Mixed Widespread/Linked Good Intact Low
Totals * Prime condition categories if tie		<b>MODERATE</b>	

<b>MATRIX</b>  Condition <i>opportunity</i>	Good	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	Moderate	Improve and reinforce	Improve and conserve	Conserve and restore
	Poor	Reconstruct	Improve and restore	Restore condition to maintain character
		Weak	Moderate	Strong
		Strength of Character		

**SENSITIVITY CHECK**

Visual					Cultural				
Very Low	Low	Moderate	High	Very High	Very Low	Low	Moderate	High	Very High

POSITIVE VIEW VIEWS OVER OPEN LAND TO SOUTH TOWARDS LUTTERWORTH FROM THE AS. IN THE CONTEXT OF OTHER BUILDINGS IN MOST VIEWS, SOME CONTRAST

BOUNDARY PARTIALLY INTACT SITE FOCUSES ON A RURAL LAND PREDOMINANTLY



UPPER SOAR (LCA) (PART OF THE NORTH WEST OF MERE LANE) ZONE /  
 LANDSCAPE TYPE - LOW LYING CLAY VALLE FARMLAND WITH SEATTLE RIDGES

Lutterworth and Broughton Astley LCA		FIELD SURVEY RECORD		SHEET No. 21 Page 1 of 2	
Date: 16 MAY 2014		Surveyors' Name/s: A.J. COOPER		National Typology Code:	
Location: NORTH WEST OF MERE LANE Landscape Character Area: UPPER SOAR (LCA) Conditions: Sunny/Clear		LDU Nos:			
STRENGTH OF CHARACTER					
<b>LANDFORM (S1)</b> <u>dominant</u> <u>prominent</u> <u>apparent</u> ( <u>widespread/localised</u> ) <u>insignificant</u>					
<b>Description:</b> flat <u>gently undulating</u> <u>GENERALLY IN PLACES</u> strongly undulating steep broad valley narrow valley plain plateau upland sloping			<b>Hydrology:</b> river <u>DITCHES</u> stream ponds lakes reservoir wetlands other		
			Degree of slope: <u>1:45 - (1:15)</u> Altitude: <u>126 - 110m AOD</u>		
<b>LANDCOVER (S2)</b> <u>dominant</u> <u>prominent</u> <u>apparent</u> ( <u>widespread/localised</u> ) <u>insignificant</u>					
<b>Description:</b> open farmland treed farmland wooded farmland parkland woodland grassland / common open water or wetlands			<b>Primary land use:</b> commercial / industrial farmland: arable / pastoral / mixed ✓ forestry: broadleaf / conifer / mixed common or green: grassed / treed nursery / allotments / orchard recreation or amenity: type reservoir disturbed : type		
Associated features: e.g. glasshouses/ marina. <u>MASHA PARK</u>			Secondary land use → <u>BITTRESBY HOUSE / COTTAGES</u>		
<b>Woodland cover:</b> extensive <u>interlocking</u> → <u>IN PLACES</u> linear discrete <u>fragmented</u> → <u>IN PLACES</u>	<b>Species:</b> <u>NATIVE SPECIES</u>	<b>Field boundaries (in order of prominence):</b> <u>hedgerow with/without trees</u> <u>tree rows</u> hedgebank fence wall / wet ditch other (high / medium / low)	<b>Species:</b> <u>NATIVE</u> <u>MIXED</u> <u>NATIVE</u>		
<b>HISTORICAL PATTERN (S3)</b> <u>dominant</u> <u>prominent</u> <u>apparent</u> ( <u>widespread/localised</u> ) <u>insignificant</u>					
<b>Description:</b> <u>A FEW LOCALISED PRE 1843 TITHE MAP BOUNDARIES APPARENT, PLANNED ENCLOSURE FIELD PATTERN HEAVILY DISRUPTED BY BUILDING OF AIRFIELD, FIELD ENCLOSURE, INCORPORATES A RAILWAY, LOT OF ROUSE AND FURROW, STRIP FIELD SYSTEM, SIGNIFICANT CENTRAL CHANGE AROUND BITTRESBY HOUSE</u>					
<b>Field pattern:</b> geometric (ordered) <u>regular (rectilinear)</u> subregular (interlocking <u>curved boundaries</u> ) → <u>SOME</u> irregular (organic, winding lanes) discontinuous (no discernable pattern)			<b>Transport pattern:</b> motorway A road B road track / lane canal railway straight winding sinuous sunken <u>DISRUPTED AND DISMANTLED IN THIS PART OF THE SITE</u>		
<b>Field size:</b> 1- small < 2ha → <u>4H</u> 2- small/medium → <u>2H</u> 3- medium/large 4- large > 8ha → <u>8H</u>			<b>Settlement:</b> Form: village / hamlet / isolated house or farm / other → <u>INDUSTRIAL PARK</u> Building style: <u>vernacular</u> / non-vernacular → <u>MIX</u> Age: Tudor/Stuart/Georgian/ Victorian/Edwardian/20thC Materials: walls and roof <u>BRICK</u>		
<b>Verges:</b> absent variable <u>uniform wide</u> / medium / narrow ditched			<b>Country houses:</b> <u>BITTRESBY HOUSE - FARMSTEAD EXTENSION</u> Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC <u>COMPONENTS MIXED ERAS</u> <u>FREQUENT/ UNSTABLE</u> Materials: <u>FIELD BRICK</u>		
<b>Other built features (function, age and materials):</b> <u>BITTRESBY AND LOOSE AND EMMAWALE COTTAGES, MILWAND COTTAGES LOCATED TO RUSBY RAILWAY LINE (DISMANTLED IN PART), AS - WATLING STREET, ROMAN ROAD SURROUNDING VILLAGES OF ULLESTHORPE, WILBY AND CLAY BROOKS PARVA.</u>					
<b>Other comments e.g. cultural features</b> <u>1843 TITHE MAP HEDGEROW PATTERNS - PARTLY INTACT BUT AROUND BITTRESBY HOUSE ARE LARGELY DESTROYED, ACCESS ARRANGEMENTS AND CONTACT TO BITTRESBY HOUSE SUBSTANTIALLY ALTERED OVER TIME.</u>					
VISUAL AND SENSORY PERCEPTION					
<b>Views of area from outside:</b> widely visible <u>locally visible</u> concealed			<b>Sense of enclosure:</b> confined <u>contained</u> → <u>IN PLACES AND MOLES</u> open exposed		
<b>Tranquility (S4):</b> tranquil/distant / <u>discordant</u> Source: <u>TRAFFIC ACTIVITY</u> Level and constancy: <u>MODERATE/ FREQUENT</u>			<b>Rarity (S5):</b> unique rare unusual Frequent → <u>LARGE ARABLE FIELDS WITH DISRUPTED HEDGE PATTERN</u>		



UPPER SOAR (LCA) - LOW LYING CLAY VALLE FARMLAND WITH SENSITIVE (RIBBON ZONE) LANDSCAPE TYPE

**CONDITION**

**HISTORICAL INTEGRITY**

<b>Extent and type of landcover change (C1):</b> pasture to arable change in extent of woodland/tree cover on farmland loss of field boundaries parkland to farmland minerals other	widespread localised insignificant	<b>Age structure of tree cover (C2):</b> over mature mature/young mixed	<b>Survival of cultural pattern (C5):</b> intact and well managed intact but poorly managed interrupted (gen. intact but locally interrupted) declining (boundaries poorly managed) relic
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**Notes:**

**ECOLOGICAL INTEGRITY**

<b>Extent of habitat/corridor survival (C3):</b> Widespread linked scattered relic	<b>Management of habitats (C4):</b> Good not obvious Poor MIXED IN FARMLAND (SOME GOOD / SOME POOR)
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**Notes:** SOME SEASONAL SURETS PROVIDED ALONGSIDE HEUGEROWS, SINGLE AGE STRUCTURE IN PLANTATION WOODLAND LACK OF TRAINING.

**VISUAL IMPACT**

<b>Impact of built development (C6):</b> Urban/transport corridor/rural housing/ utilities/structures/other	high moderate low	<b>Visual Unity (S6):</b> Unified coherent incoherent MIXED	high moderate low
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**Notes:** MASSIVE PARK WAREHOUSES ON HIGHER GROUND ALONGSIDE AS CORRIDOR AND MERE CAME  
**Notes:** MIXTURE OF VISUAL ELEMENTS, TRAFFIC, BUILDINGS, WIND TURBINES, FORMER RAILWAY, FARMLAND

**Boundary notes:** SOME BOUNDARIES ARE MORE WASHED NOW DUE TO PROGRESSIVE PLANTATIONS STRONG HEUGEROWS ALONG PARTS OF THE AS AND PARISH BOUNDARY.

**CHARACTER SUMMARY**

STRENGTH OF CHARACTER	WEAK	MODERATE	STRONG
S1 Impact of landform*	Insignificant	Apparent	Dominant/Prominent
S2 Impact of landcover*	Insignificant	Apparent	Dominant/Prominent
S3 Historic pattern*	Insignificant	Apparent	Dominant/Prominent
S4 Tranquillity	Discordant	Moderate	Tranquil
S5 Distinctiveness/rarity	Frequent	Unusual	Unique/rare
S6 Visual unity	Incoherent	Coherent	Unified
<b>Totals</b> * Prime character categories if tie		<b>MODERATE</b>	

CONDITION	POOR	MODERATE	GOOD
C1 Landcover Change	Widespread	Localised	Insignificant
C2 Age Structure of Tree Cover*	Overmature	Mature or young	Mixed
C3 Extent of semi-natural habitat survival*	Relic	Scattered	Widespread/Linked
C4 Management of semi-natural habitats	Poor	Not obvious	Good
C5 Survival of cultural pattern (fields and hedges)	Declining/Relic	Interrupted	Intact
C6 Impact of built development*	High	Moderate	Low
<b>Totals</b> * Prime condition categories if tie		<b>MODERATE</b>	

<b>MATRIX</b>	Good	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	Moderate	Improve and reinforce	Improve and conserve	Conserve and restore
	Poor	Reconstruct	Improve and restore	Restore condition to maintain character
		Weak	Moderate	Strong

Condition

OPPORTUNITIES IN SCULPTURE DESIGN LIE IN THESE ZONES

Strength of Character

**SENSITIVITY CHECK**

Visual					Cultural				
Very Low	Low	Moderate	High	Very High	Very Low	Low	Moderate	High	Very High

Generally comprising some areas of low to moderate and some of moderate to high sensitivity

Some degraded landscape will have limited interest other areas of more cultural significance and some features worthy of retention



UPPER SOAR (LCA) (PART TO THE NORTH WEST OF WERE LANE)  
 LANDSCAPE TYPE - SOAR TRIBUTARY FLAT FLOODPLAIN 2018/1

APPENDIX B Lutterworth and Broughton Astley LCA		FIELD SURVEY RECORD		SHEET No. 211 Page 1 of 2	
Date: 16 May 2014		Surveyors' Name/s: A. J. COOPER		National Typology Code:	
Location: NORTH WEST OF WERE LANE		Landscape Character Area: UPPER SOAR (LCA)		LDU Nos:	
Conditions: Sunny / Clear					
STRENGTH OF CHARACTER					
LANDFORM (S1)		dominant prominent <u>apparent</u> (widespread/localised) insignificant			
Description: <u>flat</u> EXCEPT RAILWAY EMBANKMENT gently undulating strongly undulating steep broad valley narrow valley plain plateau upland sloping		Hydrology: river <u>stream</u> Tributary streams of Soar ponds lakes reservoir <u>wetlands</u> other		Degree of slope: 1:100 - 50	
Altitude: 110 - 102m AOD					
LANDCOVER (S2)					
Description: open farmland treed farmland wooded farmland parkland <u>woodland</u> <u>grassland</u> common open water or <u>wetlands</u>		Primary land use: commercial / industrial <u>farmland</u> arable/pastoral/mixed forestry/ <u>road</u> conifer/mixed common or green: grassed/treed nursery / allotments / orchard recreation or amenity: type reservoir disturbed : type		Secondary land use ROUTEWAYS/WOODLANDS/RECREATION (select from above)	
Associated features: e.g. glasshouses/ marina. DISUSED RAILWAY					
Woodland cover: extensive <u>interlocking</u> <u>linear</u> MIXED discrete <u>fragmented</u>	Species: MIXED NATIVE	Field boundaries (in order of prominence): hedgerow (with/without trees) tree rows hedgebank fence wall/ <u>wet ditch</u> other (high/medium/low)	Species: WILLOW/ALDER/POPLAR SP.		
HISTORICAL PATTERN (S3)					
Description: organic planned unenclosed REMNANTS OF DISUSED VILLAGE BUT ASSOCIATED STRIP FIELD PATTERN GONE/LOST SITE TRUNCATED SETTING SUBSTANTIALLY CHANGED, ROMAN ROAD WASHING STREET CROMEL VALLEY					
Field pattern: geometric (ordered) regular (rectilinear) <u>subregular</u> (interlocking - curved boundaries) FRAGMENTED irregular (organic, winding lanes) discontinuous (no discernable pattern)		Transport pattern: motorway <u>A road</u> straight AS winding B road track / lane canal <u>railway</u> DISUSED sinuous sunken			
Field size: 1- small < 2ha 2- small/medium 3- medium/large 4- large > 8ha 1H0 1H0 + PARTS OF 7 OTHER FIELDS		Settlement: <del>SMALL</del> MEDIUM DISUSED VILLAGES Form: village / hamlet / isolated house or farm/ other Building style: vernacular / non-vernacular Age: Tudor/Stuart/Georgian/ Victorian/Edwardian/20thC Materials: walls and roof			
Verges: SOME GRASSY AND SUGAR ALONG DITCHES AND WATERCOURSES absent variable uniform wide / medium / narrow ditched		Country houses: Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC BITTESBY HALL BUT BARELY VISIBLE DUE TO SITING INTERFERING TREES Materials:			
Other built features (function, age and materials): RAILWAY TUNNELS IN TACT IN PLACES					
Other comments e.g. cultural features					
VISUAL AND SENSORY PERCEPTION					
Views of area from outside: widely visible <u>locally visible</u> <u>concealed</u>		Sense of enclosure: confined <u>contained</u> BY TOPOGRAPHY AND BUILT FEATURE OF RAILWAY EMBANKMENT open exposed			
Tranquility (S4): tranquil (distant/discordant) Source: ALONGSIDE AS Level and constancy: INCREASE IN TRANQUILITY FURTHER EAST MORE DISTANT TO <del>WEST</del> EAST OF VALLEY AND SITE WHERE SUGGESTED BY RAILWAY BANK		Rarity (S5): BITTESBY SM unique rare <u>unusual</u> RAILWAY/MONUMENT/STEWARDSHIP MIXI Frequent			



UPPER SOAR (LCA) - SOAR TRIBUTARY FLAT FLOODPLAIN LANDSCAPE TYPE ZONE 1

CONDITION			
HISTORICAL INTEGRITY			
<b>Extent and type of landcover change (C1):</b> pasture to arable change in extent of woodland/tree cover on farmland loss of field boundaries parkland to farmland minerals other	widespread localised insignificant	<b>Age structure of tree cover (C2):</b> over mature mature/young mixed	<b>Survival of cultural pattern (C5):</b> intact and well managed intact but poorly managed interrupted (gen. intact but locally interrupted) declining (boundaries poorly managed) relic
<b>Notes:</b> SOME HEDGEROW HAVE DECLINED AND DRIFTING AND LANDSCAPE HAS BEEN MODIFIED			

ECOLOGICAL INTEGRITY	
<b>Extent of habitat/corridor survival (C3):</b> Widespread Linked Scattered relic	<b>Management of habitats (C4):</b> Good Not obvious Poor
<b>Notes:</b> AREA IMPROVED UNDER HLW IN GOOD CONDITION, WOODLAND HEDGEROWS.	

VISUAL IMPACT			
<b>Impact of built development (C6):</b> Urban/Transport corridor/rural housing/ utilities/structures/other RAILWAY/AS EXISTING MAJOR PARK BUILDING WIND TURBINE	high moderate low	<b>Visual Unity (S6):</b> Unified Coherent Incoherent	high moderate low
<b>Notes:</b>		<b>Notes:</b> SOME UNITY IN SOME VIEWS BUT OFTEN DISRUPTED BY STRUCTURES IN THE LANDSCAPE	

**Boundary notes:** SOME BOUNDARIES INTACT OTHERS MISSING THROUGH FIELD ENCLOSEMENT

CHARACTER SUMMARY			
STRENGTH OF CHARACTER	WEAK	MODERATE	STRONG
S1 Impact of landform* S2 Impact of landcover* S3 Historic pattern* S4 Tranquillity S5 Distinctiveness/rarity S6 Visual unity	Insignificant Insignificant Insignificant Discordant Frequent Incoherent	Apparent Apparent Moderate Unusual Coherent	Dominant/Prominent Dominant/Prominent Dominant/Prominent Tranquil Unique/rare Unified
Totals * Prime character categories if tie			
		MODERATE	

CONDITION	POOR	MODERATE	GOOD
C1 Landcover Change C2 Age Structure of Tree Cover* C3 Extent of semi-natural habitat survival* C4 Management of semi-natural habitats C5 Survival of cultural pattern (fields and hedges) C6 Impact of built development*	Widespread Overmature Relic Poor Declining/Relic High	Localised Mature or young Scattered Not obvious Interrupted Moderate	Insignificant Mixed Widespread/Linked Good Intact Low
Totals * Prime condition categories if tie			
		MODERATE	

MATRIX	Good	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	Moderate	Improve and reinforce	Improve and conserve	Conserve and restore
	Poor	Reconstruct	Improve and restore	Restore condition to maintain character
		Weak	Moderate	Strong

Condition OPPORTUNITY FROM EACH CATEGORY

SENSITIVITY CHECK									
Visual					Cultural				
Very Low	Low	Moderate	High	Very High	Very Low	Low	Moderate	High	Very High
MIXED - HIGH AROUND SCOURERS MOUNTAIN ON THE TERRACE AND FACING VALLEY SIDE, ALONG WATER COURSE - MODERATE ON SOME RIDGES - LOW ON LOWER VALLEY SIDE ALONG FROM WATER COURSE					CULTURAL INTEREST IN RAILWAY/BITTESBY CH RESULTS OF WAY BETWEEN VILLAGES ALONG VALLEY DEGRADED AREAS TOO WHEN PLANTED				



# HIGH CROSS PLATEAU (LCA) - OPEN PLATEAU (LANDSCAPE TYPE) (WEST OF THE AS)

APPENDIX B		FIELD SURVEY RECORD		SHEET No. 3i Page 1 of 2	
Lutterworth and Broughton Astley LCA		Date: 16 MAY 2014		Surveyors' Name/s: A. J. COOPER	
Location: WEST OF AS		National Typology Code:		LDU Nos:	
Landscape Character Area: HIGH CROSS PLATEAU - OPEN PLATEAU		Conditions: Sunny/clear			
STRENGTH OF CHARACTER					
LANDFORM (S1)		dominant <u>prominent</u> <u>apparent</u> (widespread/localised) insignificant			
<b>Description:</b> flat gently undulating strongly undulating steep broad valley narrow valley plain plateau upland sloping		To north of WILLEY FIELDS FARM (due to lack of vegetation cover) To south of WILLEY FIELDS FARM		<b>Hydrology:</b> river stream ponds lakes reservoir wetlands other	
		Degree of slope:		Altitude: 127-110m AOD	
LANDCOVER (S2)		dominant <u>prominent</u> <u>apparent</u> (widespread/localised) insignificant			
<b>Description:</b> open farmland (To north of WILLEY FIELDS FARM) treed farmland and hedged (East of Willey) West of Willey wooded farmland parkland woodland - Linear Shallockhale - Long Spiney grassland / common open water or wetlands		<b>Primary land use:</b> commercial / industrial farmland arable/pastoral mixed forestry: broadleaf/conifer/mixed common or green: grassed/treed nursery / allotments / orchard recreation or amenity: type reservoir disturbed : type		<b>Secondary land use</b> Broadleaf (select from above) linear shallockhale in landscape	
Associated features: e.g. glasshouses/ marina. Disused Railway		Woodland cover:		Field boundaries (in order of prominence):	
Species:		extensive interlocking linear discrete fragmented		hedgerow (with/without trees) tree rows hedgebank fence wall/wet ditch other (high/medium/low)	
HISTORICAL PATTERN (S3)		dominant <u>prominent</u> <u>apparent</u> (widespread/localised) insignificant			
<b>Description:</b> organic planned unenclosed		<b>Field pattern:</b> geometric (ordered) regular (rectilinear) subregular (interlocking - curved boundaries) irregular (organic, winding lanes) discontinuous (no discernable pattern)		<b>Transport pattern:</b> motorway A road AS B road track / lane canal railway disused	
<b>Field size:</b> 1- small < 2ha 2- small/medium 3- medium/large 4- large > 8ha - North of Willey fields		<b>Settlement:</b> Form: village, hamlet, isolated house or farm, other Building style: vernacular, non-vernacular Age: Tudor/Stuart/Georgian/Victorian/Edwardian/20th Materials: walls and roof BRICK, THATCH, STONE CHURCH (14th)		straight South of Willey fields farm winding North of Willey fields farm sinuous sunken	
<b>Verges:</b> absent variable uniform wide/medium / narrow ditched		<b>Country houses:</b> Newnham Paddock Park Age: Tudor/Stuart/Georgian/Victorian/Edwardian 20thC visually + physically separated by Long Spiney Materials:			
<b>Other built features (function, age and materials):</b> THE CHURCH OF ST LEONARD GRAVE 11* LISTED 14th STONESTONE COTTAGE NURSERIES GRADE II, THATCH 17th DISUSED FOLKLE HOLLOWAY COURTESY LEICESTER TO RUSBY RAILWAY, BUILT IN 1839 WATLING STREET ROMAN ROAD (NOW AS)					
<b>Other comments e.g. cultural features</b> THE ONLY WOODLAND PLANTATION IN THE PARISH IS LOCATED TO THE EAST OF THE DISUSED RAILWAY					
VISUAL AND SENSORY PERCEPTION					
<b>Views of area from outside:</b> widely visible locally visible concealed - Willey in fold in the landform By Long Spiney, hedgerows, planting along AS away from road and west of Willey		<b>Sense of enclosure:</b> confined contained - to immediate east and west of Willey open - more open further to the north west exposed			
<b>Tranquility (S4):</b> tranquil/distant/discordant Source: AS Road Corridor / Cool Pit lane Level and constancy: Moderate, frequent		<b>Rarity (S5):</b> unique rare unusual Frequent low density dev, rural 'emptiness' in places			



# HIGH CROSS PLATEAU - OPEN PLATEAU LCA (WEST OF THE AS)

## CONDITION

### HISTORICAL INTEGRITY

<b>Extent and type of landcover change (C1):</b> pasture to arable change in extent of woodland/tree cover on farmland loss of field boundaries parkland to farmland minerals other <i>Bo village development/farm diversification</i>	<b>Age structure of tree cover (C2):</b> over mature mature/young mixed	<b>Survival of cultural pattern (C5):</b> intact and well managed intact but poorly managed interrupted (open, intact but locally interrupted) declining (boundaries poorly managed) relic <i>Arden Willey</i> <i>fulcher north</i>
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**Notes:** Field patterns appear largely intact due to lack of development and continuing farming practices

### ECOLOGICAL INTEGRITY

<b>Extent of habitat/corridor survival (C3):</b> Widespread Linked Scattered Relic <i>Arden Willey</i> <i>to north of Willey fields farm</i>	<b>Management of habitats (C4):</b> Good Not obvious Poor <i>average</i>
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**Notes:** Area to north and east of Willey located in the Borough of Rugby Council Green Infrastructure strategic network area.

### VISUAL IMPACT

<b>Impact of built development (C6):</b> Urban/transport corridor/rural housing/ utilities/structures/other <i>AS Road Corridor, Py Lons</i>	<b>Visual Unity (S6):</b> Unified Coherent Incoherent <i>high/moderate/low of Willey</i> <i>Further north in Willey</i>	high moderate low
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**Notes:** Existing M50 PARK AND MOUND FARM WOODS TREETOP VISIBLE IN LONG VIEWS TO EAST/SE  
 M5 Watlip Street a detractor from rural scene

**Boundary notes:** Stray pattern of hedger around Willey, Long Spinning and plantation woodland, tree belt along disused railway show features

### CHARACTER SUMMARY

STRENGTH OF CHARACTER	WEAK	MODERATE	STRONG
S1 Impact of landform* S2 Impact of landcover* S3 Historic pattern* S4 Tranquillity S5 Distinctiveness/rarity S6 Visual unity	Insignificant Insignificant Insignificant Discordant Frequent Incoherent	Apparent* Apparent Apparent Moderate Unusual Coherent	Dominant/Prominent Dominant/Prominent Dominant/Prominent Tranquil Unique/rare Unified
<b>Totals</b> * Prime character categories if tie		MODERATE	

CONDITION	POOR	MODERATE	GOOD
C1 Landcover Change C2 Age Structure of Tree Cover* C3 Extent of semi-natural habitat survival* C4 Management of semi-natural habitats C5 Survival of cultural pattern (fields and hedges) C6 Impact of built development*	Widespread Overmature Relic Poor Declining/Relic High	Localised Mature or young Scattered Not obvious Interrupted Moderate	Insignificant Mixed Widespread/Linked Good Intact Low
<b>Totals</b> * Prime condition categories if tie		MODERATE	

MATRIX	Condition	Strength of Character		
		Weak	Moderate	Strong
Good		Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
Moderate		Improve and reinforce <i>Tranquillity, M50</i>	Improve and conserve	Conserve and restore
Poor		Reconstruct	Improve and restore	Restore condition to maintain character

*Constraints/opportunities in scheme*  
*Design H2 in these zones*

### SENSITIVITY CHECK

Visual					Cultural				
Very Low	Low	Moderate	High	Very High	Very Low	Low	Moderate	High	Very High
<i>(Indirect)</i> Key sensitivities are sub-utilizing the rural area, built development intruding in views where emptiness is perceived, maintaining positive long rural views					Avoid destruction of intact hedgerow pattern and mixed age structure of hedgerow trees. Maintain high/medium quality verges.				

## Appendix F 5: Summary tables of effects

Table F.5.1a: Summary table of effects on landscape receptors –Construction stage

Landscape Receptor	1.Lutterworth Lowlands <i>Includes parts of Zone 1 of the application Site and Zone 2</i>		2.Upper Soar <i>Zone 1 – to the north west of Mere Lane</i>		3.High Cross Plateau- Open Plateau <i>Includes indirect effects from Zone 1 and Zone 2</i>	
	<i>Zone 1 – Part to the south east of Mere Lane</i>	<i>Zone 2 –Part to the south of Magna Park</i>  <i>The effects below are those anticipated from the new scheme. Consented scheme predicted levels are identified in brackets and italics for comparison</i>	<i>Low lying clay vale farmland with gentle ridges Landscape Type</i>	<i>Soar tributary flat floodplains and terrace Landscape Type</i>	<i>Part- offsite to the west of the A5 potentially indirectly effected by Zone 1</i>	<i>Part- offsite to the west of the A5 alongside potentially indirectly effected by Zone 2</i>
Value of receptor	Low	Medium to low <i>(Medium to low)</i>	Medium	Medium	Medium to high Note: Medium in closer proximity to the A5	Medium <i>(Medium)</i>
Susceptibility to change	Low	Low* *given existing consented scheme on site <i>(Medium)</i>	Medium	Medium	Medium	Medium <i>(Medium)</i>
Sensitivity to change	<b>Low</b>	<b>Low*</b> <b><i>(Medium to low)</i></b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b> <b><i>(Medium)</i></b>
Size or scale of effect	Low	Site –High, Locality-Medium and District LCA -Low <i>(Medium)</i>	Site – High, Locality –High to medium and District LCA - Medium	Site –Medium to high, Locality -Medium to low, District LCA-Low	Medium	Low <i>(Low)</i>
Geographical extent	Very low (Influencing site and immediate area around site)	Medium to low (influencing a 1.5km localised area and approx. 3% of District LCA) <i>(Medium)</i>	Medium (Influencing up to 2km, localised area, and 20% approx. of District LCA)	Low (Influencing site and 0.5km immediate area around site and approx. 10% of District LCA)	Medium (influencing 1-1.5km, localised area and approx. 5% of District LCA)	Low to very low (less than 1km, localised area and approx. 2% of District LCA) <i>(Low)</i>
Duration of effect/ reversibility	Medium	Low <i>(Low)</i>	Medium	Medium	Medium	Low <i>(Low)</i>
Magnitude of effect	<b>Low, on site, Low to negligible, on Locality and negligible on District LCA</b>  <b>Low to negligible overall</b>	<b>High, on site, Medium on locality, Low on District LCA</b>  <b>Medium Adverse overall</b> <b><i>(Medium adverse)</i></b>	<b>High, on site, High to medium, on 2km locality, Medium effect on District LCA,</b>  <b>High to medium Adverse overall</b>	<b>Medium to high, on site, Medium to low on locality, Low on District LCA</b>  <b>Medium Adverse overall</b>	<b>Medium</b>	<b>Low</b> <b><i>(Low)</i></b>
Level of effect	<b>Minor Adverse, on site, Negligible on Locality and Negligible on District LCA</b>  <b>Minor Adverse to negligible overall</b>	<b>Moderate Adverse, on site, Minor Adverse on locality and Negligible on District LCA</b>  <b>Minor Adverse</b> <b><i>(Minor to Moderate Adverse)</i></b>	<b>Moderate to Major Adverse on Site, Moderate Adverse on locality, Moderate Adverse on District LCA</b>  <b>Moderate Adverse effects overall</b>	<b>Moderate Adverse, on site, Moderate to minor Adverse on locality and Minor Adverse on the District LCA</b>  <b>Moderate to minor Adverse effects overall</b>	<b>Moderate Adverse</b>	<b>Minor Adverse</b> <b><i>(Minor Adverse)</i></b>



Table F.5.1b: Summary table of residual effects on landscape receptors –Operation stage

Landscape Receptor	1.Lutterworth Lowlands <i>Includes parts of Zone 1 of the application Site and Zone 2</i>		2.Upper Soar <i>Zone 1 – to the north west of Mere Lane</i>		3.High Cross Plateau- Open Plateau <i>Includes indirect effects from Zone 1 and Zone 2</i>	
Landscape Receptor	<i>Zone 1 – Part to the south east of Mere Lane</i>	<i>Zone 2 – Part to the south of Magna Park</i>  <i>Note: The effects below are those anticipated from the new scheme. Consented scheme predicted levels are identified in brackets and italics, for comparison</i>	<i>Low lying clay vale farmland with gentle ridges Landscape Type</i>	<i>Soar tributary flat floodplains and terrace Landscape Type</i>	<i>Part- offsite to the west of the A5 potentially effected by Zone 1</i>	<i>Part- offsite to the west of the A5 potentially effected by Zone 2</i>
Value of receptor	Low	Medium to Low <i>(Medium to Low)</i>	Medium	Medium	Medium to high Note: Medium in closer proximity to the A5	Medium <i>(Medium)</i>
Susceptibility to change	Low	Low* *given existing consented scheme on site <i>(Medium)</i>	Medium	Medium	Medium	Medium <i>(Medium)</i>
Sensitivity to change	<b>Low</b>	<b>Low*</b> <i>(Medium to low)</i>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b> <i>(Medium)</i>
Operational Stage						
Size or scale of effect	Site –Low, Locality-Low to negligible, District LCA- Negligible	Site-High, Locality- Medium reducing to Low and District LCA Low reducing to very low, in mid-term <i>(Medium reducing to low in mid-term)</i>	Site -High reducing too high to medium in the mid-term, Locality –High to medium reducing to medium, District LCA- Medium to low reducing too Low in mid-term following establishment of new landscape infrastructure	Site -Medium to high reducing too medium in the mid-term, Locality –Low reducing to very low, District LCA -Low reducing to negligible with establishment of new landscape infrastructure	Medium to low reducing to low in mid-term	Low reducing to negligible in mid-term <i>(Low to negligible)</i>
Geographical extent	Very low (Influencing site and immediate area around site, less than 1% of District LCA)	Medium to Low(influencing a 1.5km localised area and approx. 3% of District LCA) , reducing to Low, for locality and very low for district LCA, in mid-term (0.5km locality, 1% district LCA) <i>(Medium to low)</i>	Medium (Influencing 1-1.5km, localised area and 17% approx. of District LCA)	Low (Influencing site and a reduced part of a 0.5km immediate area around site and approx. 6% of District LCA)	Medium to low (influencing 1-1.5km, localised area and approx.5% of District LCA)	Low (less than 1km, localised area and approx. 2% of District LCA) <i>(Low)</i>
Duration of effect/ reversibility	Medium	High <i>(High)</i>	High	High	Medium	Medium <i>(Medium)</i>
Magnitude of effect	Low, on site, Low to negligible, on Locality and negligible on LCA  Low to negligible overall	High on site, Medium reducing to low on wider locality, Low reducing to very low effect on District LCA, in mid-term  Medium reducing to Medium to low in the mid term <i>(Medium)</i>	High, on site early years, reducing too High to medium. High to medium early years, reducing too Medium, on 1.5km locality, Medium reducing to Medium to low effect on District LCA, in mid-term  High to medium reducing to medium in the mid-term overall	Medium to high reducing to Medium, on site, Low reducing to Very low effect on locality and Low reducing to Negligible on District LCA, in mid-term  Medium to Low reducing to Low to very low in the mid-term, overall	Medium reducing to Medium to low in mid-term	Low reducing to Negligible in mid-term <i>(Low reducing to Negligible in the mid-term)</i>
Level of effect	Minor Adverse, on site, Negligible on Locality and Negligible on District LCA  Minor Adverse to negligible overall	Moderate Adverse, on site, Minor Adverse on locality reducing to negligible and Minor to negligible reducing to Negligible on District LCA in the mid-term  Minor Adverse reducing to Minor adverse to negligible in the mid-term <i>(Minor Adverse)</i>	Major to Moderate Adverse, on Site in short term, Moderate Adverse, in the mid-term. Moderate Adverse on locality, Moderate reducing to Moderate to minor Adverse on District LCA, in the mid-term  Moderate reducing to Moderate to minor adverse effect, in mid-term overall	Moderate Adverse, Minor adverse reducing to Minor to negligible Adverse in the mid-term, on the locality and Minor reducing to Minor to negligible Adverse on the District LCA, in the mid-term  Moderate to minor reducing minor in mid-term overall	Moderate Adverse reducing to Minor to moderate (Adverse) in the mid-term	Minor Adverse reducing to Negligible in the mid-term <i>(Minor Adverse reducing to Negligible in the mid-term)</i>

Table F.5.2ai: Summary table of effects on visual receptors – Construction stage

Viewpoint: Location:	V1a-b. High Cross	V2a and 2b. Claybrooke Grange and the Frolesworth Road	V3. Woodway Lane	V3-Night Woodway Lane Residents	4ai Visitors to St Peter's Church, Claybrooke Parva	V4aii-4aiv. South of Claybrooke Parva village	V4aii-Night Claybrooke Parva Community	V4bi-4bii Footpath W92 and the White House	V4ci-4cvi Bridleway W86	V5ai-5aii Visitors to the Ullesthorpe Moat SM	V5aiii Visitors to Ullesthorpe open access land	V6ai-6aiv Footpath W89 South west of Ullesthorpe
Visual receptors /value	Representative of views experienced by walkers on the Leicestershire Round, including a section within the Venonis scheduled monument. Also Road users on at High Cross and two residents  Medium to high	Representative of views experienced by a resident at Claybrooke Grange and road users on Frolesworth Lane  Low to medium	Representative of the view experienced by residents on Woodway Lane, users of a camp site and road users  Medium	Representative of the night time view experienced by residents on Woodway Lane, users of a camp site and road users  Low to medium	Representative of views from Visitors to St Peter's Church and walkers (within the Claybrooke Conservation Area)  Medium to high	Representative of the views experienced by walkers on public footpaths south of the village and connecting to the A5 by the White House  Low to medium	Representative of the night time view experienced by the community of Claybrooke Parva  Medium to high	Representative of the views experienced by walkers on a public footpaths south of Claybrooke Parva and residents at White House Farm  Walkers and resident to south-Medium Resident to east-medium to high	Representative of the view experienced by walkers/horse riders on a public bridleway  Low to medium	Representative of views from visitors to the Ullesthorpe Moat Scheduled monument (within open access land) Note: View 5aii-represents 'worst case' view  Medium to high	Representative of views from visitors to the Ullesthorpe open access land  Medium	Representative of the view experienced by walkers on a public footpath and visitors to open access land  Medium
Susceptibility	High	Medium to High	Medium to High	Medium to high	Medium	High	High	High	High	High	High	High
Sensitivity to change from the development	Medium to high	Medium	Medium	Medium	Medium to high	Medium	Medium to high	Medium -walkers and resident to south and high - for resident to east	Medium	Medium to high	Medium to high	Medium to high
Size or scale of effect	low	low	Medium to high	Medium	Low	4aii-High 4aiii-Medium to High 4aiv- Medium to high	Negligible	Walkers -medium to high, Resident to east-Medium to high, Resident to south-medium to low	4ci- Medium 4cii-4cvi-Very high	5ai -Negligible 5aii-Medium to low	Medium	6ai-high 6aii-Medium to high 6aiii-Medium to high 6aiv-High
Geographical extent	low	low	medium	Low to medium	Low	4aii - Medium 4aiii - Medium 4aiv- Medium to high	Very Low	Walkers - high Resident to east- medium, Resident to south- low	4ci- Medium 4cii-4cvi - High	5ai -negligible 5aii-Low	Medium to low	6ai-Medium to high 6aii-Low to medium 6aiii- Medium to high 6aiv- Very high
Duration of effect/ reversibility	Medium	low	Medium	Low	Medium	Medium	Low	Medium	Medium	Medium	Medium	Medium
Magnitude of effect	Low	low	Medium to high	Low to medium	Low	4aii -Medium to high, 4aiii-Medium, 4aiv- Medium to high,	Very low to Negligible	Walkers - high Resident to east- medium to high, Resident to south- medium to low	4ci- Medium 4cii-4cvi - Very high	5ai -Negligible 5aii-Moderate to low	Medium	6ai-Medium to high 6aii-Medium 6aiii-Medium to High 6aiv-High
Level of effect	Minor to moderate (Adverse)	Minor (Adverse)	Moderate to Major (Adverse)	Minor to moderate (Adverse)	Minor to moderate (Adverse)	4aii &4aiv- Moderate to Major (Adverse), 4aiii-Moderate Adv	Negligible to Minor (Adverse)	Walkers 4bi Mod (Adv), 4bii-Major(Adv), Resident East-Maj to moderate, Resident to south -Minor to Mod (Adv)	4ci- Moderate (Adverse),4cii-4cvi-Major (Adv)	5ai - Neutral 5aii- Moderate to Major (Adv)	Moderate (Adverse)	6ai - Moderate to Major (Adv), 6aii&6aiii- Moderate(Adv), 6aiv-Major



Table F.5.2a:ii: Summary table of residual effects on visual receptors – Construction stage – *Continued*

Viewpoint: Location:	V6b. South of Ullesthorpe	V7. Bittesby Scheduled Monument	V8ai South –east edge of Ullesthorpe on the Lutterworth Road	V8ai-Night. The Community of Ullesthorpe	V8aii -8aiii Ullesthorpe Windmill	V8b Lutterworth Road	V9a-c. Public bridleway W88 between Willey and Chuckey Hall (Sequential)	V10a-b. South of Ashby Parva	V11. Argosy Way Magna Park	V12a-f. Mere Lane (Sequential)	V13. Footpath West of Norwood Farm	V14a. Public Footpath to the west of Willey
Visual receptors /value	Representative of the view experienced by walkers/horse riders on a permissive path  Low to medium	Specific 'worst case' view experienced by walkers and visitors to the Bittesby Medieval village Scheduled monument permissive open access area via a permissive route  Medium	Representative of the view experienced by residents on the south-eastern edge of Ullesthorpe and road users on the Lutterworth Road  Medium	Representative of the night time view experienced by The community of Ullesthorpe  Medium	Representative of the view experienced by visitors to the windmill  Low to medium	Representative of views experienced by road users and a resident  Medium	Representative of views experienced by horse riders and walkers  Low to medium	Representative of views experienced by walkers on public footpaths, a small number of residents road users  Low to medium	Representative of views experienced by Workers and road users within the existing Logistics Park and on the existing road network serving the logistics park  Low	Representative of views experienced by road users and horse riders using verges and permissive bridleways  Road users -Low to medium Horse riders- Low	Representative of views experienced by walkers on a section of public footpath, farm workers and a small number of residents  Low to medium	Representative of views experienced by walkers on a section of public footpath  Low to medium
Susceptibility	High	High	High	Residents - High Road users - Medium	High	High to medium	High	Medium to high	Low to medium	Road users - Medium Horse riders- Medium to high	High	High
Sensitivity to change from the development	Medium	Medium to high	Medium to high	Medium to high	Medium	Resident– Medium to high Road users - Medium	Medium	Medium	Low	Road users - Medium Horse riders- Medium to High	Medium	Medium
Size or scale of effect	High	Medium to high	Medium	Negligible	8aii -Medium 8aiii-Medium	Medium	9a&9bi –Very high 9bii-Medium to high 9c-Medium	Low to medium	Medium	Road users – Medium to High Horse riders- low*	Medium to high	medium
Geographical extent	Medium to high	Medium to high	Low to medium	Low	8aii -Low to medium,8aiii-Low to medium	Low	9a&9bi – high 9bii- Medium to high 9c-Medium	Low to medium	Medium	Road users - Medium Horse riders- High*	Low to Medium	Medium
Duration of effect/ reversibility	Medium	Medium	Medium	Low	Medium	Medium	Medium	Medium	Medium	Road users - Medium Horse riders- Low	Medium	Medium
Magnitude of effect	High	Medium to high	Medium	Negligible to low	8aii- medium,8aii – medium	Low to medium	9a&9bi – High 9bii- Medium to high 9c-Medium	Low to medium	Medium	Road users – Medium to high, Horse riders- Medium	Medium	Medium
Level of effect	Major to Moderate (Adverse)	Major to Moderate (Adverse)	Moderate (Adverse)	Minor Adverse to neutral	8aii &8aiii- Moderate (Adverse)	Resident– Moderate (Adverse), Road users – Minor to moderate (Adv)	9a&9bi – Major (Adv), 9bii-Major to Moderate (Adv) 9c-Moderate (Adv)	Minor to Moderate (Adverse)	Minor (Adverse)	Road users Moderate (Adv), H.riders-Moderate (Adv)*As route temporarily diverted to NWest	Moderate (Adverse)	Moderate (Adverse)

Table F.5.2aiii: Summary table of residual effects on visual receptors – Construction stage - *Continued*

Viewpoint: Location:	V14b. Public Footpath to the east of Willey	V14c&14d Main Road in Willey	V14c & 14d- Night Main Road in Willey	V14e. St Leonard's churchyard, Willey	V15. Public Footpath east of Willey Fields Farm	V16a-16eii. The A5 corridor and land adjacent incl. FPW89 (Sequential)	V16b&16d-Night The A5, the Community of Willey	V17. From the Lutterworth Road
Visual receptors /value	Representative of views experienced by walkers on a public footpath and bridleway users  Low to medium	Representative of views experienced by road users and residents  Medium	Representative of views experienced by road users and the community of Willey  Medium	Representative of the view experienced by visitors to the Church of St Leonard, Willey Note: 'worst case' view selected  Medium	Representative of views experienced walkers on a public footpath  Low to medium	Representative of views experienced by road users passing along the A5/Watling Street, some walkers and horse riders on public footpaths or bridleways.  Road users/walkers and Bridleway users at the roadside – Low to medium Workers at Willey Fields Farm- Medium	Representative of the night time view experienced by road users passing along the A5/Watling Street and the community of Willey and residents at White House Farm  Medium	Representative of views experienced by road users and a resident  Low
Susceptibility	High	High to medium	High to medium	Medium to high	High	Road users/walkers and bridleway users at the roadside - Medium Workers at Willey Fields Farm– Low to medium	High to medium	Medium to high
Sensitivity to change from the development	Medium	Residents– Medium to high Road users - Medium	Residents/Community of Willey – Medium to high Road users - Medium	High to medium	Medium	Road users/walkers and Bridleway users at the roadside – Low to medium Workers at Willey Fields Farm (V16ei and 16eii)– Low to medium	Residents/Community of Willey – Medium to high Road users - Medium	Medium
Size or scale of effect	Medium to .high	Residents – Low Road users – medium to high	Residents/Community of Willey –Low Road users - Low	Medium	Medium to high	From road users, walkers and horse riders on sections of the A5 represented by view 16a- Very high 16b- Very high, 16c- Very high, View 16d – Very High 16ei and 16eii (Willey Fields Farm)- High	Resident/Community of Willey 16b – Very low, 16d –Low Road users, 16b – Medium to high, 16d- Low to medium	Medium
Geographic extent	Medium to high	Residents – Low Road users –Low to Medium	Residents/Community of Willey – Very Low Road users - Medium	Low to very low	High to medium	From road users, walkers and horse riders on sections of the A5 represented by view 16a- Very high 16b- Very high, 16c –Very high View 16d – High 16ei and 16eii (Willey Fields Farm)- High	Resident/Community of Willey 16b– Very low, 16d-Low Road users 16b –High 16d – Low to medium	Low
Duration of effect/ reversibility	Medium	Residents – Medium Road users -Medium	Very Low	Medium	Medium	Medium	Very low	Medium
Magnitude of effect	Medium to high	Residents - Low Road users –Medium	Residents/Community of Willey - Low ,Road users – Low	Low	Medium to high	View 16a –Very high, View 16b – Very high, 16c –Very high, View 16d- High to Very high, View 16ei View 16eii - High	Residents/Community of Willey – 16b - Very low, 16d- Low, Road users -16b- Medium, 16d -Low	Low to medium
Level of effect	Moderate (Adverse)	Residents-Minor to Moderate (Adverse) Road users – Moderate (Adv)	Road users - Minor (Adv) Community of Willey- Minor (Adv)	Minor to moderate (Adverse)	Moderate to major (Adverse)	View 16a –Major(Adv), View 16b-Major(Adv), View 16c – Major(Adv), View 16d- Moderate to major (Adv)View 16ei and View 16 eii – Moderate (Adv)	Residents-16b- Neutral, 16d- Minor(Adv) Road users- 16b Moderate (Adv), 16d –Minor (Adv)	Minor to Moderate (Adverse)

Table F.5.2aiv: Summary table of effects on visual receptors – Construction stage - *Continued*

Zone 2 – To the south of Magna Park – Detailed Application Site

Viewpoint: Location:	V18. From the Lutterworth Road	V19. From the edge of the A5	V.19 From the edge of the A5- Night	V20 Public bridleway X32 from alongside Moorbarns	V21 Public bridleway X32 at end of Moorbarns Lane	V22 A4303 looking south
Visual receptors /value	Representative of the view experienced by road users  <i>Low</i>	Representative of the view experienced by road users and visitors to the Liberty Hotel  <i>Medium</i>	Representative of the view experienced by road users and visitors to the Liberty Hotel  <i>Medium</i>	Representative of the view experienced by a resident and bridleway users  <i>Medium</i>	Representative of the view experienced by a bridleway users  <i>Medium</i>	Representative of the view experienced by road users and workers in adjacent buildings  <i>Low to medium</i>
Susceptibility	<i>Low</i>	<i>Medium to high</i>	<i>Medium</i>	Resident - High Bridleway users- Medium	Bridleway users- Medium	Workers - Medium Road users- Low
Sensitivity to change from the development	<b>Low</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium to high</b>	<b>Medium</b>	<b>Low to Medium</b>
Size or Scale of effect	<i>Medium to low (Medium to low)</i>	<i>High to medium (High to medium)</i>	<i>Low (Low)</i>	<i>Medium (Medium)</i>	<i>Low (Medium)</i>	<i>High to medium (High to medium)</i>
Geographic extent	<i>Low (Medium to low)</i>	<i>Medium (Medium)</i>	<i>Medium (Medium)</i>	<i>Medium to low (Medium to low)</i>	<i>Low (Low)</i>	<i>High to medium (High to medium)</i>
Duration of effect/ reversibility	<i>Low (Low)</i>	<i>Low (Low)</i>	<i>Very low (Very Low)</i>	<i>Low (Low)</i>	<i>Low (Low)</i>	<i>Low (Low)</i>
Magnitude of effect	<b>Low (Low)</b>	<b>Medium (Medium)</b>	<b>Low (Low)</b>	<b>Medium to low (Medium to low)</b>	<b>Low (Low)</b>	<b>Medium (Medium)</b>
Level of effect	<b>Minor Adverse (Minor Adverse)</b>	<b>Moderate Adverse (Moderate Adverse)</b>	<b>Minor Adverse (Minor Adverse)</b>	<b>Moderate Adverse (Moderate Adverse)</b>	<b>Minor Adverse (Minor Adverse)</b>	<b>Moderate Adverse (Moderate Adverse)</b>

Note: The effects above are those anticipated from the new scheme. Consented scheme predicted levels are identified in brackets and italics, for comparison

Anticipated effects above allow for winter situation

Table F.5.3bi: Summary table of residual effects on visual receptors –Operation stage

Viewpoint: Location:	V1a-b. High Cross	V2a and 2b. Claybrooke Grange and the Frolesworth Road	V3. Woodway Lane	V3-Night Woodway Lane Residents	4ai Visitors to St Peter's Church, Claybrooke Parva	V4aii-4aiv. South of Claybrooke Parva village	V4aii-Night Claybrooke Parva Community	V4bi-4bii Footpath W92 and the White House	V4ci-4cvi Bridleway W86	V5ai-5aii Visitors to the Ullesthorpe Moat SM	V5aiii Visitors to Ullesthorpe open access land	Footpath W89 South west of Ullesthorpe V6ai-6aiv
Visual receptors /value	Representative of views experienced by walkers on the Leicestershire Round, including a section within the Venonis scheduled monument. Road users on at High Cross and two residents  Medium to high	Representative of views experienced by a resident at Claybrooke Grange and road users on Frolesworth Lane  Low to medium	Representative of the view experienced by residents on Woodway Lane, users of a camp site and road users  Medium	Representative of the night time view experienced by residents on Woodway Lane, users of a camp site and road users  Low to medium	Representative of views from Visitors to St Peter's Church and walkers (within the Claybrooke Conservation Area)  Medium to high	Representative of the views experienced by walkers on public footpaths south of the village and connecting to the A5 by the White House  Low to medium	Representative of the night time view experienced by the community of Claybrooke Parva  Medium to high	Representative of the views experienced by walkers on a public footpaths south of Claybrooke Parva and residents at the White House  Walkers and resident to south -Medium Resident to east- medium to high	Representative of the view experienced by walkers/horse riders on a public bridleway  Low to medium	Representative of views from visitors to the Ullesthorpe Moat Scheduled monument (within open access land) Note: View 5aii-represents 'worst case' view  Medium to high	Representative of views from visitors to the Ullesthorpe open access land  Medium	Representative of the view experienced by walkers on a public footpath and visitors to open access land  Medium
Susceptibility	High	Medium to high	Medium to High	Medium to high	Medium	High	High	High	High	High	high	High
Sensitivity to change from the development	Medium to high	Medium	Medium	Medium	Medium to high	Medium	Medium to high	Walkers and resident to south-Medium - and resident to east -High	Medium	Medium to High	Medium to high	Medium to high
Size or Scale of effect	Negligible to low	Low	High reducing to medium in the mid term	Low * *with existing Magna Park site enhancements	Medium reducing to Low in the mid term	View 4aii – Medium to high reducing to medium, View4aiii – Medium reducing to low in the mid- term, View 4aiv-Medium to low reducing to low in the mid term	Negligible* *with existing Magna Park site enhancements	Walkers – 4bi- Medium then Medium to low in mid-term 4bii- Very high reducing to High to medium in mid-term, Medium in the long term. Resident to east- Medium, Resident to south- low	4ci- Medium reducing to low mid-term,4cii-4civ- Medium reducing to Low 4cv&4cvi-High reducing to medium to high	5ai –Negligible, 5aii- Low reducing to very low	Medium	6ai-High reducing to medium in mid-term, 6aiii, 6aii-High to medium reducing to medium in mid- term 6aiv- Very high reducing to medium in mid- term
Geographic extent	Low	Low	Medium	Low	Low	View 4aii – Medium to low, View 4aiii – Medium to low, View 4aiv-Medium to low	Negligible	Walkers – Medium reducing to medium to low in mid-term, Resident to east- medium to medium to low mid-term, Resident to south- low	4ci- Medium, 4cii-4civ- Medium, 4cv and 4cvi- High	5ai-negligible, 5aii- Low	Low to medium	6ai,medium to high reducing to medium 6aii,6aiii-Medium, 6aiv- V. High reducing to medium in mid- term
Duration of effect/ reversibility	High	High	High	High	High	High	Medium	High	High	High	High	High
Magnitude of effect	Low	Low	High in shorter term, Medium in the mid-term	Low * *with existing Magna Park site enhancements	Low	View 4aii – Medium, View 4aiii & View 4aiv- Medium to low	Negligible* *with existing Magna Park site enhancements	Walkers -4bi -Medium to low ,4bii - High reducing to medium in mid-term, Resident to east- Medium reducing to medium to low, Resident to south- low	4ci- Minor (Adv),4cii-4cvi – Minor (Adv)4cv&4cvi-High reducing to medium to high	5ai -negligible 5aii-Low reducing to very low	Medium	6ai -High reducing to medium mid-term 6aii and 6aiii- H-M reducing to medium 6aiv-Very high to medium, in mid-term
Level of effect	Minor(Adverse)	Minor (Adverse)	Major to moderate in shorter term , then Moderate in the mid-term (Adverse)	Minor* (Adverse)	Minor to Moderate (Adverse)	View 4aii – Moderate (Adv), View 4aiii &4aiv– Minor to Moderate (Adverse)	Neutral	Walkers- 4bi- Minor to Mod (Adv). 4bii-Major reducing to Major to moderate in mid -term Resident to east- Major to moderate in shorter term, becoming Moderate in mid-term (Adv) Resident to south- Minor (Adv)	4ci-Minor to Moderate (Adverse),4cii-4civ- Mod to minor to Minor(Adv),4cv&4cvi – Major to moderate reducing to Moderate adverse in mid-term	5ai -negligible 5aii-Moderate to minor reducing to Minor (Adv)	Moderate (Adverse)	6ai, -Moderate to Maj (Adv) becoming moderate, 6aii and 6aiii- Moderate 6aiv- Major reducing to moderate adverse, mid-term

Table F.5.3bii: Summary table of residual effects on visual receptors –Operation stage

Viewpoint: Location:	V6b. South of Ullesthorpe	V7. Bittesby Scheduled Monument	V8ai Eastern edge of Ullesthorpe on the Lutterworth Road	V8ai-Night Eastern edge of Ullesthorpe/ Community of Ullesthorpe	V8aii -8aiii Ullesthorpe Windmill	V8b Lutterworth Road	V9a-c. Public bridleway between Willey and Chuckey Hall (Sequential)	V10a-b. South of Ashby Parva	V11. Argosy Way Magna Park	V12a-f. Mere Lane (Sequential)	V13. Footpath West of Norwood Farm	V14a. Public Footpath to the west of Willey
Visual receptors /value	Representative of the view experienced by walkers/horse riders on a permissive path  Low to medium	Specific 'worst case' view experienced by walkers and visitors to the Bittesby Medieval village Scheduled monument permissive open access area via a permissive route  Medium	Representative of the view experienced by residents on the south-eastern edge of Ullesthorpe and road users on the Lutterworth Road  Medium	Representative of the night time view experienced by The community of Ullesthorpe  Medium	Representative of the view experienced by visitors to the windmill  Low to medium	Representative of views experienced by road users and a resident  Medium	Representative of views experienced by horse riders and walkers  Low to medium	Representative of views experienced by walkers on public footpaths, a small number of residents road users  Low to medium	Representative of views experienced by Workers and road users within the existing Logistics Park  Low	Representative of views experienced by road users and horse riders using verges and permissive bridleways  Road users -Low to medium Horse riders- Low	Representative of views experienced by walkers on a public footpath, farm workers and a small number of residents  Low to medium	Representative of views experienced by walkers on a public footpath  Low to medium
Susceptibility	High	High	High	Residents - High Road users - Medium	High	High to medium	High	Medium to high	Low to medium	Road users - Medium Horse riders- Medium to high	High	High
Sensitivity to change from the development	Medium	Medium to high	Medium to high	Medium to high	Medium	Resident– Medium to high, Road users - Medium	Medium	Medium	Low	Road users – Medium, Horse riders- Medium to high	Medium	Medium
Size or Scale of effect	Medium to high reducing too low to medium in the mid-term	High to medium reducing to Medium in the mid-term Other locations- Low in short term	Medium reducing to Low to negligible in the mid -term	Low to negligible becoming negligible* *with existing Magna Park site enhancements	8ai&8aii- Low to medium reducing too low in mid-term	Low to medium	View 9a and 9bi- High,9bii-Medium reducing to low View 9c – Low to medium	low	Low to medium	Road users – Medium reducing too Low to medium mid-term Horse riders- Medium reducing too Low to medium mid-term	Medium to high reducing to medium to low in the mid-term	Medium reducing to Medium to low in the mid-term and low in the long term
Geographic extent	Reducing from Medium too high to low too medium in the mid-term	Medium Other locations- Low	Low to medium reducing to low in the mid term	Low reducing to negligible with existing site enhancements	8aii –Low, 8aiii-Low	Low	9a&9bi – High 9bii-Medium, 9c-Medium to low	Low to medium	Low to medium	Road users – Medium reducing too Low to medium mid term Horse riders- High to Medium reducing to medium mid-term with improvements to routes	Low to medium reducing to low in the mid-term	Medium to low reducing to low in the mid term
Duration of effect/ reversibility	High	High	High	Medium	High	High	High	High	High	High	High	High
Magnitude of effect	Reducing from High to medium too Low to medium in the mid-term, Low in the long term	Short term High to medium reducing to Medium in mid-term Other locations- Low in short term	Reducing from Medium too Low to negligible, in the mid- term	Low to negligible reducing to negligible *with existing Magna Park site enhancements	8ai&8aii –Low to medium reducing too low in mid- term, 8aii-Low	Low to medium	View 9a and 9bi- High,9bii-Medium reducing to Medium to low, View 9c – Low to medium	Low	Low to medium	Road users – Low to medium in mid-term Horse riders- Medium in mid-term	Medium reducing too Low to medium in the mid-term and low, long term	Medium to low reducing to low in the mid-term
Level of effect	Moderate (Adv) reducing to minor to moderate (Adverse), Minor in long term	Major to moderate (Adv) in shorter term, reducing to moderate from one locality, reducing to minor to moderate (Adverse) overall for the complete SM site in the mid-term	Moderate (Adv) reducing to minor (Adverse) reducing to Minor mid-term	Minor (Adverse) reducing to Neutral*	Minor to Moderate reducing to Minor (Adv) mid-term	Resident Moderate (Adv), Road users Mod to Minor Adv	9a&9bi – Major to moderate(Adv),9bii-Moderate to Minor (Adv) 9c-Moderate to minor (Adv), in mid-term	Minor Adverse	Minor Adverse	Road users- Minor to moderate (Adverse),H. riders (Moderate Adv)	Minor to moderate (Adv) mid-term, then Minor (Adv) in long term	Minor to Moderate (Adv) reducing to Minor adverse in the mid-term



Table F.5.3biii: Summary table of residual effects on visual receptors –Operation stage -continued

Viewpoint: Location:	V14b. Public Footpath to the east of Willey	V14c&14d Main Road in Willey	V14c & 14d- Night Main Road in Willey	V14e. St Leonard's churchyard, Willey	V15. Public Footpath east of Willey Fields Farm	V16a-16eii. The A5 corridor and land adjacent (Sequential)	V16b&16d-Night The A5, the Community of Willey	V17. From the Lutterworth Road
Visual receptors /value	Representative of views experienced by walkers on a public footpath and bridleway users  Low to medium	Representative of views experienced by road users and residents  Medium	Representative of views experienced by road users and the community of Willey  Medium	Representative of the view experienced by visitors to the Church of St Leonard, Willey  Medium	Representative of views experienced walkers on a public footpath  Low to medium	Representative of views experienced by road users passing along the A5/Watling Street, some walkers and horse riders on public footpaths or bridleways. Also representative of the view experienced by workers at Willey Fields Farm  Road users/walkers and Bridleway users at the roadside – Low to medium Workers at Willey Fields Farm - Medium	Representative of the night time view experienced by road users passing along the A5/Watling Street and the community of Willey and residents at White House Farm  Medium	Representative of views experienced by road users and a resident  Low
Susceptibility	High	High to medium	High to medium	Medium to high	High	Road users/walkers and bridleway users at the roadside – Medium, Workers at Willey Fields Farm– Low to medium	High to medium	Medium to high
Sensitivity to change from the development	Medium	Residents/Community of Willey – Medium to high, Road users - Medium	Residents/Community of Willey – Medium to high Road users - Medium	High to medium	Medium	Road users/walkers and Bridleway users at the roadside – Medium, Workers at Willey Fields Farm– Low to medium	Residents/Community of Willey – Medium to high, Road users - Medium	Medium
Size or scale of effect	Medium reducing to medium to low in the mid-term	Residents – Low Road users – medium to high reducing too low to medium in mid- term	Residents/Community of Willey - Low to medium reducing to low, in mid- term Road users – Medium, reducing to medium to low in the mid- term	Low reducing to very low in the mid-term	Medium reducing to Medium to low in the mid-term	From road users, walkers and horse riders on sections of the A5 represented by view 16a- High to Very high reducing too Medium in mid-term, 16b- high reducing too Medium in mid-term, 16c- High reducing too Medium in mid-term, View 16d –High to medium reducing to medium in the mid-term 16ei and 16eii (Willey Fields Farm)- High, reducing to low in mid-term	Residents/Community of Willey – 16b-Low to negligible*, 16d-Very low reducing to negligible in mid-term Road users –16b -Medium, reducing to low*, 16d-high to medium reducing to Medium in mid- term *with existing Magna Park site enhancements	Medium reducing to medium to low in the Mid –term and low in the long term
Geographic extent	Medium	Residents – Low reducing to very low in the mid term Road users –Low to Medium	Residents/Community of Willey - Low to Medium reducing to low mid-term Road users – Medium reducing to medium to low in mid- term	Low	Medium reducing to medium to low in the mid- term	From road users, walkers and horse riders on sections of the A5 represented by view 16a- Very high, 16b- Very high reducing to medium in mid-term, low, long term, 16c –Very high, reducing to medium in mid-term, low in long term View 16d – High to medium, 16ei and 16eii (Willey Fields Farm)- High	Residents/Community of Willey – 16b-very low, 16d-low Road users –16b -low, 16d- medium	Low
Duration of effect/ reversibility	High	High	High	High	High	High	Medium	High
Magnitude of effect	Medium reducing to medium to low in the mid term	Residents - Low reducing too low to very low in the mid term Road users –Medium reducing too low to medium in mid term	Residents/Community of Willey - Low to Medium reducing to low, Road users – Medium reducing to medium to low	Low, reducing to very low in the mid-term	Medium reducing to medium to low in the mid-term	View 16a –Very high reducing too High in the mid-term, View 16b – Very high to high reducing to Medium, in the mid- term , 16c –Very high reducing too Medium in the mid-term , View 16d- High to medium reducing too Medium in the mid-term, View 16ei View 16 eii – High reducing to Medium in the mid-term	Residents/Community of Willey – 16b-very low, 16d- Very low reducing to negligible in the mid-term Road users –16b -low to medium reducing to low in mid-term, 16d- High to medium reducing to low to medium in the mid-term	Medium to low reducing to low in the mid term
Level of effect	Moderate reducing to Moderate to minor in mid-term	Residents-Minor (Adv), Road users – Moderate (Adv) in mid-term	Community of Willey- Moderate reducing to Minor to Moderate (Adv), Road users – Moderate reducing to Minor to Moderate (Adv), all in the mid-term	Moderate to minor adverse reducing to Minor (Adverse) in the mid-term	Moderate reducing to Moderate to minor (Adverse) in the medium term	View 16a –Major to Moderate (Adv), View 16b and 16c- Major –Moderate in shorter term, then Moderate (Adv), View 16d- Major to moderate reducing to Moderate (Adv), View 16ei and View 16 eii – Moderate reducing to Moderate to minor (Adv), all in the mid-term	Residents/Community of Willey – 16b- Neutral*, 16d-Minor to moderate, Minor (Adv) in mid-term, Road users – 16b-Mod to minor reducing to Minor*, 16d- Moderate (Adverse) reducing to Moderate to minor in the mid-term * with existing Magna Park site enhancements	Moderate to minor reducing to Minor (Adverse) , in the mid-term



Table F.5.3biv: Summary table of residual effects on visual receptors –Operation stage – *Continued*

Zone 2 – To the south of Magna Park – Detailed Application Site

Viewpoint: Location:	V18. From the Lutterworth Road	V19. From the edge of the A5	V.19 From the edge of the A5- Night	V20 Public bridleway X32 from alongside Moorbarns	V21 Public bridleway X32 at end of Moorbarns Lane	V22 A4303 looking south
Visual receptors /value	<i>Representative of the view experienced by road users</i>  <i>Medium</i>	<i>Representative of the view experienced by road users and visitors to the Liberty Hotel</i>  <i>Medium</i>	<i>Representative of the view experienced by road users and visitors to the Liberty Hotel</i>  <i>Medium</i>	<i>Representative of the view experienced by a resident and bridleway users</i>  <i>Medium</i>	<i>Representative of the view experienced by a bridleway users</i>  <i>Medium</i>	<i>Representative of the view experienced by road users and workers in adjacent buildings</i>  <i>Medium to low</i>
Susceptibility	<i>Medium</i>	<i>Medium to high</i>	<i>Medium</i>	<i>Resident - High Bridleway users- Medium</i>	<i>Bridleway users- Medium</i>	<i>Workers - Medium Road users- Low</i>
Sensitivity to change from the development	<b>Medium</b>	<b>High to medium</b>	<b>Medium</b>	<b>Medium to high</b>	<b>Medium</b>	<b>Medium to low</b>
Size or Scale of effect	<i>Low reducing too Low to negligible in the mid-term</i>	<i>Medium in short term reducing to medium to low in the medium term* ( High to Medium reducing to low in the medium term )</i>	<i>Medium reducing to low in the medium term* (Medium reducing to low in the medium term)</i>	<i>Low reducing to negligible in medium term (Low reducing to negligible in the medium term)</i>	<i>Low reducing to very low in medium term (Low reducing to very low in medium term)</i>	<i>Medium reducing to Medium to low in medium term (Medium to Low in medium term)</i>
Geographic extent	<i>Low (Low)</i>	<i>Medium (Medium)</i>	<i>Medium (Medium)</i>	<i>Low (Low)</i>	<i>Low (Low)</i>	<i>Medium to Low (Medium to Low)</i>
Duration of effect/ reversibility	<i>Medium (medium)</i>	<i>High to medium (High to medium)</i>	<i>Medium (Medium)</i>	<i>High to medium (High to medium)</i>	<i>Medium to low (Medium to low)</i>	<i>High to medium (High to medium)</i>
Magnitude of effect	<b>Low reducing to low to negligible (Low to negligible in mid-term)</b>	<b>High to Medium reducing to Medium to low (Medium reducing to Medium to low in mid- term )</b>	<b>Medium reducing to low (Medium reducing low in mid- term )</b>	<b>Moderate reducing too Low to very low (Moderate reducing too Low to very low in mid-tem )</b>	<b>Low reducing to Low to negligible in mid-term (Low reducing Low to negligible in mid-term )</b>	<b>Medium reducing to medium to low in mid-term (Medium to low reducing to medium to low in mid-term)</b>
Level of effect	<b>Minor Adverse reducing to Minor to Negligible (Minor Adverse reducing to Minor to negligible in the mid- term)</b>	<b>*Moderate Adverse (Moderate reducing to Minor to moderate Adverse in the mid-term )</b>  <i>*Slightly greater effect over time arising from intermittent fork lift crane lifting activity</i>	<b>Moderate reducing to Moderate to minor Adverse*</b> <b>(Moderate reducing to Moderate to Minor Adverse in the mid- term)</b>  <i>* some additional columns balanced with the opportunity to dim lights in north-west corner training area formerly car parking</i>	<b>Moderate Adverse reducing to Minor Adverse in mid-term (Minor Adverse in the mid- term)</b>	<b>Minor reducing to Minor Adverse to Negligible in the mid-term (Minor Adverse to Negligible in the mid-term)</b>	<b>Moderate Adverse reducing to Minor Adverse in the mid- term (Moderate to Minor Adverse in the mid-term)</b>

Note: The effects above are those anticipated from the new scheme. Consented scheme predicted levels are identified in brackets and italics, for comparison

Anticipated effects above allow for winter situation

Appendix F 7: KTA lighting report and drawings

IDI Gazeley Brookfield Logistics Properties  
**Magna Park Extension: Hybrid Application**  
External Lighting Strategy

Author / Amended by:	Authorised by	Date:	Version:
John Griffiths	Mike Pooley	26.8.15	Draft issue 01
John Griffiths	Mike Pooley	7.9.15	Draft issue 02
John Griffiths	Mike Pooley	14.9.15	Final issue 03
Managing Director	Managing Director		

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## 1.0 EXTERNAL LIGHTING STRATEGY

### **Reason for Report**

1.1 This report sets out the external lighting strategy for the application proposals in support of the hybrid planning application. Detailed Lux level drawings and visualisations will be produced as the individual building plots are submitted for detailed planning. This report covers the following:

- Relevant British standards/codes of practice for external lighting
- Existing Magna Park external lighting
- Proposed Lamp source/Luminaire type
- Proposed Lux Levels
- Sustainability – CO2 savings/maintenance

A night time visual impact assessment is included within Chapter 9 of the Environmental statement which accompanies this planning application. This topic is separately identified under 'Night Time' in sections 9.4 Baseline Conditions, 9.5 Construction Effects and Mitigation, 9.6 Operation Effects and Mitigation, 9.7 Residual effects and 9.8 Cumulative Effects.

### **Relevant British Standards and Codes**

1.2 The external lighting scheme will be designed in accordance with the following standards and codes:-

BSEN 12464-2 2014 Light and Lighting or work places (part 2) outdoor workplaces

GN01-2011 Guidance notes for reduction of obtrusive light (Zone E2 – Rural, low district brightness)

BS 5489-1:2013 Code of practice for the design of road lighting Part 1: Lighting of roads and public amenity areas

BREEAM 2014 EN03, POL 04.

The relevant current version of each standard shall be adopted as the individual plots are developed out.

### **Existing Magna Park Lighting**

1.3 The existing Magna Park building and street lighting consists of high pressure sodium luminaires mounted on buildings and street lighting columns. The type of luminaire varies throughout the park from angled floodlights to full cut off flat glass luminaires, although each scheme when implemented was done so in compliance with the relevant planning permission. The result of this, however, is a yellow/orange sky glow when viewed from the surrounding villages on nights with low cloud, or highly illuminated buildings. This is caused by light reflecting from the horizontal surfaces and from the building elevations.



Views from Willey/Ullesthorpe and Bitteswell are indicated in photos (see below). It should be noted that these photographs were taken on an October evening with low cloud cover



View from Willey to Magna Park -



View from Bitteswell to Magna Park



View from Ullesthorpe to Magna Park

There is also high intensity illumination of the buildings viewed from Mere Lane on a clear winters night when the foliage has dropped from the surrounding trees (as seen below)



View from proposed Magna Park extension site to existing Magna Park (Mere lane elevations)

High pressure sodium (SON-T) lamps, at the time of installation, had the highest luminous efficacy (most efficient) available, but also a high luminance intensity as all of the light is derived from a single light source (ie the lamp)

SON-T lamps also have poor colour rendition and visual acuity when compared to white light source (fluorescent/metal halide/LED)

Until very recently high pressure sodium luminaires were used for external lighting for most industrial buildings around the country.

The Heads of Terms of the S106 Agreement submitted with detailed planning application for the DHL Supply Chain facility (App 15/00919/FUL) propose two changes to modernise the lighting to reduce the sky glow should planning permission be granted. IDI Gazeley will upgrade all of the street lighting within the existing Magna Park to LED and will additionally finance the upgrade of the lighting of the yards and buildings of the six buildings that border Mere Lane. That undertaking is tied to the anticipated artificial lighting impact of the DHL Supply Chain facility.

### **Proposed Light source/Luminaire type**

- 1.4 All of the lighting strategy for the hybrid application schemes will be fully LED.

The Performance of LEDs has significantly improved in the last 5-6 years, such that they are now routinely installed for office, warehouse and more recently external lighting schemes. They have the advantage over SON-T lamps as follows:-

- Higher efficacy-, more efficient fittings, meaning lower energy installations. This will mean reduced running costs and CO2 emissions for the LED installation when compared to (SON-T.)
- Light source intensity- Reduced light source intensity due to the LED fitting consisting of multiple light sources compared to single light source (lamp). This reduces upward light caused by reflection from horizontal surfaces and building illumination.
- Colour temperature - The LED fittings provide a cool white light source (4000k, RA 70-80) which improves colour rendition (enabling lower lux levels), compared to SON-T (2000K RA 20) whilst also providing much improved visual acuity.  
Note: RA is the Colour rendering index for the light source (the appearance of the colour of objects improves as the RA increases)
- Optical control - LED fittings are provided with electronic drivers which enable uniform dimming of each fitting. Giving flexibility of control and improved energy savings to the end user

So to summarise LED lighting installation will provide:-

Minimised Glare  
Highly reduced zero upward light (due to reflection)  
Flexibility in control (dimming)  
Reduced Maintenance  
Highly reduced CO2 emissions

Moreover, the life expectancy of LED fittings installed in external environment is considerably higher, with a usable light output for 140,000 (plus) hours compared to 15,000 hours of SON-T lamp. This greatly reduces the environmental impact of lamp changes. SON-T lamps contain Sodium/Phosphors which need to be carefully disposed. The increased life expectancy also reduces the annual maintenance cost for the end user.

**Building orientation and landscape bunds.**

1.5 The parameters for which planning permission are sought in Zone 1 site and fix the heights and orientation of the buildings in Parcels G,H,I,J,K & L. Buildings are set at a building slab level with landscape bunds to shield and screen the directional light intensity from the surrounding villages of Ullesthorpe, Willey and Claybrooke Parva 1.7 km, 2.1 km and 2.4km away respectively

The parameters also fix the orientation of lorry yards in Parcels G,H,I,J,K & L to mitigate the for visual impact on these villages.

The combination of the technical lighting design, the orientation and heights of the buildings and the siting of the service yards are design measures which would deliver significant reductions in visual impact from artificial light sources.

**Proposed Lighting Manufacturer**

1.6 Holophane Lighting (developer partner) are IDI Gazeley's preferred external lighting supplier for the functional/operational external lighting of the application proposals. The preferred supplier is subject to review as the plots are developed and the industry efficiency of external LED fittings and control solutions are monitored in the market place.

Holophane are a prestigious lighting company (part of a \$2 billion global company) and are renowned for the quality of their light fittings and innovative solutions, having been established for well over 100 years. Holophane have invested millions into the research and development of LED solutions for both internal and external applications and have been leaders in external lighting solutions for many years.

They currently have the most efficient external area lighting solution of the market leaders in terms of performance and cost. The image below shows the luminaire proposed for the DHL Supply Chain facility.



The lighting strategy for the hybrid application adopts the same design solution. The external lighting installation would consist of Flat Glass LED luminaires mounted on building and on tubular steel columns at approximately 8m above the finished external ground level.

The Multi light source of the LED fitting will mean that the light source intensity will be greatly reduced when compared to the traditional High pressure sodium luminaire (SON-T). The reduced intensity will mean much reduced upward reflection from the ground surface

Back shields will be provided as necessary, but is felt with low level columns, orientation of service yards and landscape bunding that this will be kept to a minimum

The lighting design will avoid directional flood lights to the building facades. Any illuminated building signage will be subject to additional Planning submittals.

By keeping the fitting low on the building, the light spill on each building would be greatly reduced, providing a dark building elevation to the skyline (as indicated in photos at end of this report)

Each luminaire will be provided with programmable electronic driver, giving the end user total control of the luminaire. The fitting can be dimmed down further whenever practicable and providing additional energy savings.

### **Illumination (Lux) Levels**

- 1.7 Lighting to the following areas shall be generally designed to give the following average levels with 0.4 uniformity, generally to the CIBSE (Chartered institute of building services engineers) Guide standards: -

<b>Location</b>	<b>Lux</b>	<b>Level</b>
Roadway	20	Floor level
Car Park	10	Floor level
Main Entrance	50	Floor level
Pedestrian walkways	10	Floor level
Cycle shelter	20	Floor level
Lorry Park	25	Floor level
Loading/unloading	50	Floor level

The External Lighting installation will comply with “ILE External lighting” Guidelines & Dark Sky policy’s with the following zonal classification.

E2: Low district brightness areas, Rural or small village locations.

### **External Lighting schemes**

- 1.8 As each plot within the development parcels is developed out and infrastructure is extended detailed Lux level drawings and visualisations will be submitted as part of the detailed planning process.

Lux Plots/visualisations do not form part of the matters for which planning permission is sought at this stage.

## Benefits to Customer/Environment

1.9 The LED (with dimming control) strategy, together with lower mounting heights will provide a very significant range of benefits over traditional HID high pressure Sodium luminaire installation which characterises most of the lighting in Magna Park now (though the street lighting and lighting onto Mere Lane will be modernised if the DHL Supply Chain facility is granted planning permission). Those benefits are:-

- Reduced Light source intensity
- Reduced Building illumination
- Reduced Visual impact to surrounding villages/areas

In addition to the reduction in visual impact the end user also has the added benefit of the following:-

- Improved colour rendition,
- Improved visual acuity,
- Reduced annual energy consumption (approx. 40% of external lighting energy)
- Reduced annual maintenance
- Reduced CO2 emissions (approx. 40% of external lighting emissions)
- Dimming facilities for further reduced CO2 emissions (approx. 52% of external lighting emissions)
- Reduced maintenance costs

The end user and wider environment also benefit from the reduction in energy and consequential reductions in carbon emissions.

## Energy usage and CO2 emissions

1.10 From the proposed Magna Park extension Masterplan an annual energy and thus CO2 saving can be calculated. (Detailed Lighting plots have not been carried out for each individual building Plot. The calculations below are based on similar buildings recently erected with LED fittings)

<b><u>LED</u></b>		<b><u>SON-T</u></b>	
Installed KW	150Kw	Installed KW	250kW
Annual run hours	3650	Annual run hours	3650
Annual Kwhrs	547,500	Annual Kwhrs	912,500

### **Energy/CO2 saving (LED) – Per annum**

365,000 Kwhrs                      190,530 Kg/CO2

If dimming were also employed – e.g., between hours of 12pm to 4am– the savings would be further enhanced to:-

440,000 Kwhrs                      230,000 Kg/CO2



Thus LEDs with dimming controls would provide approximately 52% energy/CO2 savings when compared to traditional High pressure sodium installation

### **Lighting Design Summary**

The Lighting design approach, plus the design measures that fix the sites of buildings, their height and orientation of yards reduces the artificial lighting effects to “not significantly adverse”. Thus, treated on its merits alone, the lighting impacts of the hybrid application proposals require no further mitigation.

However, it is recognised that the lighting for the extension site adds to the existing park Light Pollution, and thus further mitigation of the existing lighting conditions is justified. Section 1.13 below sets out the proposed undertakings.

### **Street Lighting**

- 1.11 The external street lighting to Zone 1 of the application site shall be installed to BS 5489 - Code of practice for the design of road lighting. Part 1 – Lighting of roads and public amenity areas.

The installation to the estate roads shall be all LED.

The luminaires will be set to automatically dim at curfew hours, whilst maintaining a safe environment for pedestrians and motorists.

### **Mitigation of the Existing Magna Park Lighting**

- 1.12 The S106 Agreement HOTs undertakings made in conjunction with the DHL Supply Chain application to upgrade the street lighting in Magna Park and upgrade the lighting of the yards and buildings along Mere Lane to LED are carried forward to the hybrid application.

The further undertakings, set out in the S106 Agreement HOTs for the hybrid application, to mitigate the combined lighting effects of the application proposals with the existing Magna Park lighting are as follows:-

- A) Plot 4400 is due to come back into the ownership of IDI Gazeley towards the end of 2015. There is a commitment to upgrade the whole of the external lighting installation to LED. A design has been carried out that reduces the installed load from 38KW to 10KW. Providing annual saving of 107,000Kwhrs (55,000KG CO2)
- B) Plot 2110 being constructed within the existing Park, will benefit from a full LED external lighting installation.

Further to the Measures above IDI Gazeley are also in detailed discussions with a third party National maintenance company to engage with all of the Existing park tenants with regards to upgrading external and internal lighting installations to further reduce the sky glow effect.

Questionnaires have been issued to all Tenants - see below

**EXTERNAL LIGHTING**

- 1. Have there been complaints about existing external lighting from operatives
- 2. Would a free survey/report showing saving/upgrade/payback be of interest
- 3. Can you confirm if External lighting has SON/Metal halide lamps or LED
- 4. Can you confirm current lighting controls ie photocell/timeclock/dimming
- 5. Approximate hours of operation per day
- 6. Approximate age of installation
- 7. Is the External lighting installation metered separately
- 8. Are there existing paper/cad drawings of external lighting layout
- 9. Is there a planned maintenance regime in place for lamp replacement

**WAREHOUSE LIGHTING**

- 1. Have there been any complaints about Light levels/Glare from operatives
- 2. Would a free survey/report showing saving/upgrade/payback be of interest
- 3. Can you confirm if Warehouse lighting has SON/Metal halide lamps or LED
- 4. Please confirm storage layout ie 80% racking/20% open plan/marshalling
- 5. Can you confirm current lighting controls ie photocell/PIR/dimming
- 6. Approximate hours of operation per day
- 7. Approximate age of installation
- 8. Is the Warehouse lighting installation metered separately
- 9. Are there existing paper/cad drawings of Warehouse lighting layout
- 10. Is there a planned maintenance regime in place for lamp replacement
- 11. Have emergency lighting batteries been replaced within last 5 years

Name:

Date:

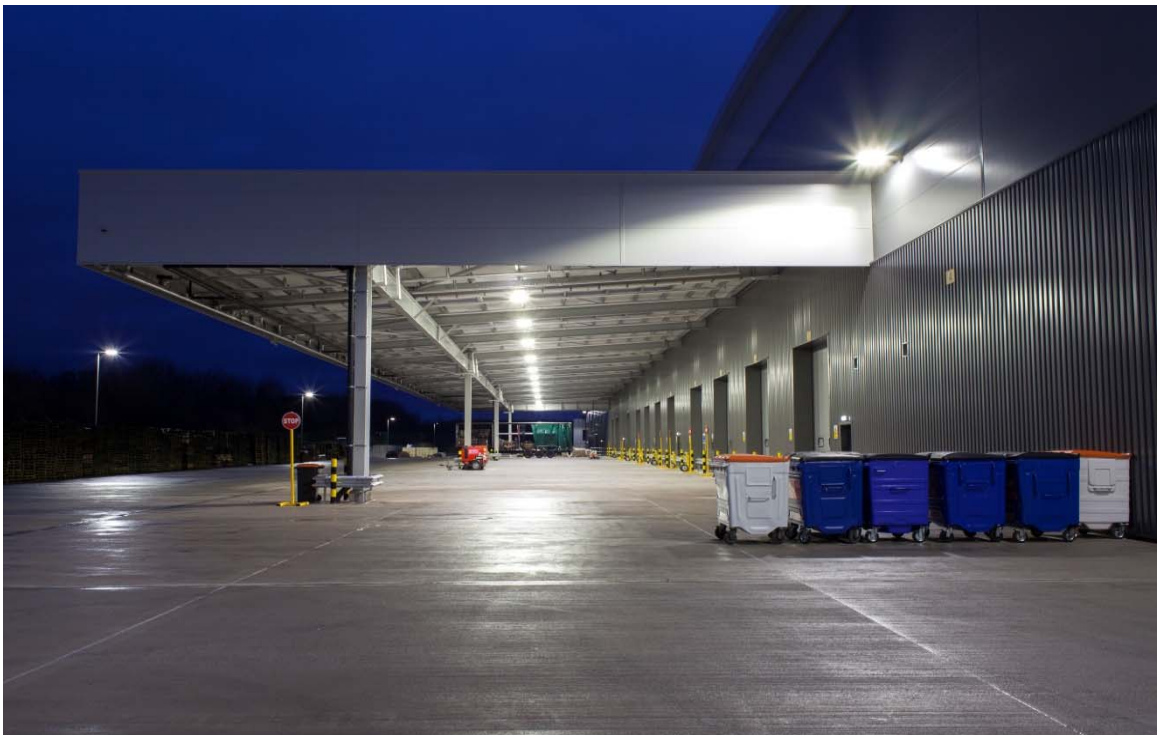
Position:

Following receipt of completed questionnaires, presentation workshops will be set up to advise Tenants on Lighting upgrade options/efficiencies/pay back and their role in helping to further reduce the sky glow lighting pollution viewed at Magna Park.

It is hoped that further to these workshops that detailed surveys will be carried out free of charge to establish exact costs/payback and considerable benefit to each Plot. Whilst Gazeley have no control over the individual Tenants Lighting installations, it is felt that the relationship formed over the years between Magna Park management and each Tenant will encourage further lighting upgrades across the park

### **Recent LED Installation Photographs**

- 1.13 Installation photographs have been provided of a very recent industrial Building where the external lighting installation consisted of Holophane DSX luminaires.



Building illumination greatly reduced, lower horizontal reflectance and thus reduced sky glow



Building illumination greatly reduced (Low intensity light source with 0.2% upward light)



Upper half of building in darkness due to low mounting height and reduced reflectance



Improved Colour rendition (RA) and visual acuity mean Lux levels can be reduced



Rev.	By	Description	CHK

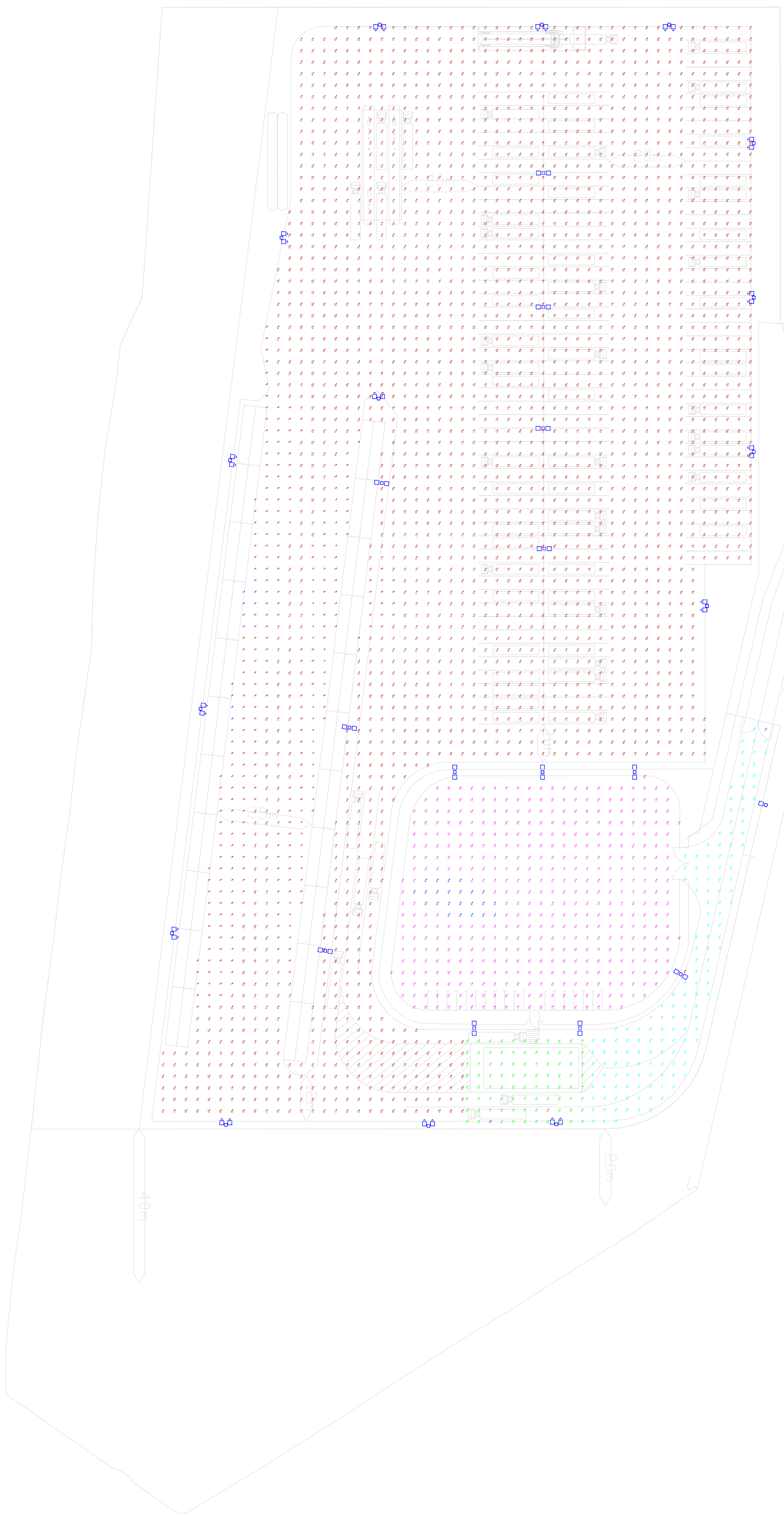


HQ/PHANE D-Series size 1



HQ/PHANE D-Series size 2

LUMINAIRE SCHEDULE		Symbol	Qty	Area	Notes	Symbol	Qty	Area	Notes
1	HQ/PHANE D-Series size 1	□	10	10.00	10.00	1	1	1.00	1.00
2	HQ/PHANE D-Series size 2	□	10	10.00	10.00	2	2	2.00	2.00
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Hybrid Planning Application**

Drawn To Scale  
**Proposed External Lighting  
Lux Level Plot  
Zone 2**

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Scale  
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