

Earl Shilton SUE

Environmental Statement - Non Technical Summary



BLOOR HOMES

Jelson
HOMES

BARWOOD
LAND

Report for

Bloor Homes, Jelson Homes and Barwood Land

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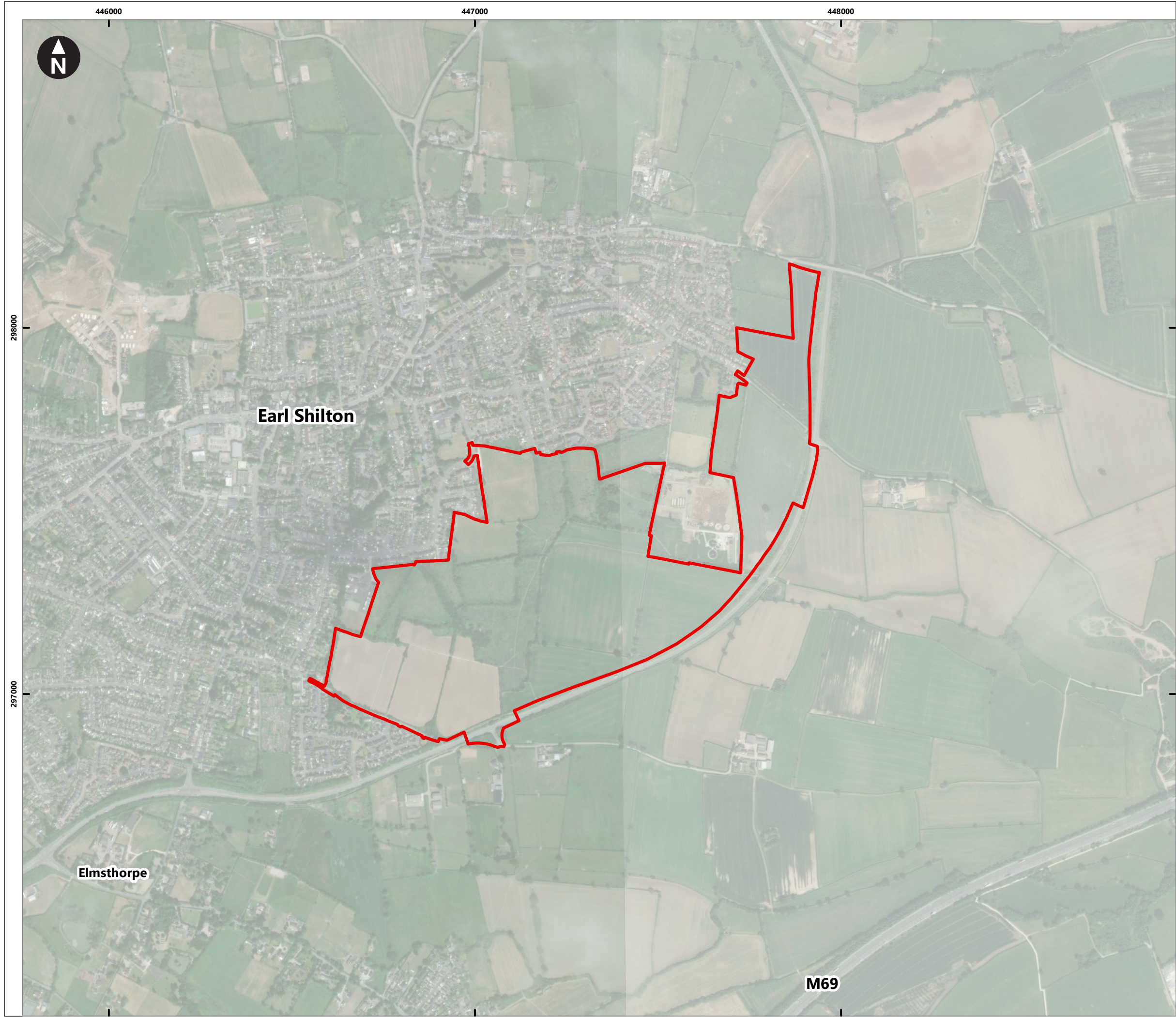
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1. Introduction

1.1 Introduction

- 1.1.1 Wood Group UK Limited (hereafter referred to as 'Wood') has been commissioned by Bloor Homes, Barwood Land, and Jelson Homes (hereafter referred to as 'the Applicants'), to provide the Environmental Impact Assessment (EIA) and planning documentation for an outline planning application to Hinckley and Bosworth Borough Council (HBBC), for a residential led, mixed-use development on land at Weavers Fields, located to the east and south-east of Earl Shilton, Leicestershire (hereafter referred to as the 'Site') (see **Figure 1.1**).
- 1.1.2 The Site extends to approximately 66 hectares (ha) and occupies most of the land allocated as a Sustainable Urban Extension (SUE) by HBBC, as identified in their Core Strategy¹. The total extent of the SUE includes the Site, plus an additional field to the north-west of the Wastewater Treatment Works (WwTW), and three fields between Mill Lane and Thurlaston Lane, which are the subject of a separate planning application (application reference 20/01225/FUL) which is being progressed by another party independent of the Applicants.

¹ Hinckley and Bosworth Borough Council (2009). Hinckley and Bosworth Borough Council Local Development Framework Core Strategy [online] available at: https://www.hinckley-bosworth.gov.uk/downloads/file/487/core_strategy_adopted_document [accessed November 2021].



Key

Site boundary

0 100 200 300 400 500 600 m

Scale at A3: 1:10,000

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Ordnance Survey 0100031673

Earl Shilton SUE
Environmental Statement

Figure 1.1
The site and its surroundings

December 2021

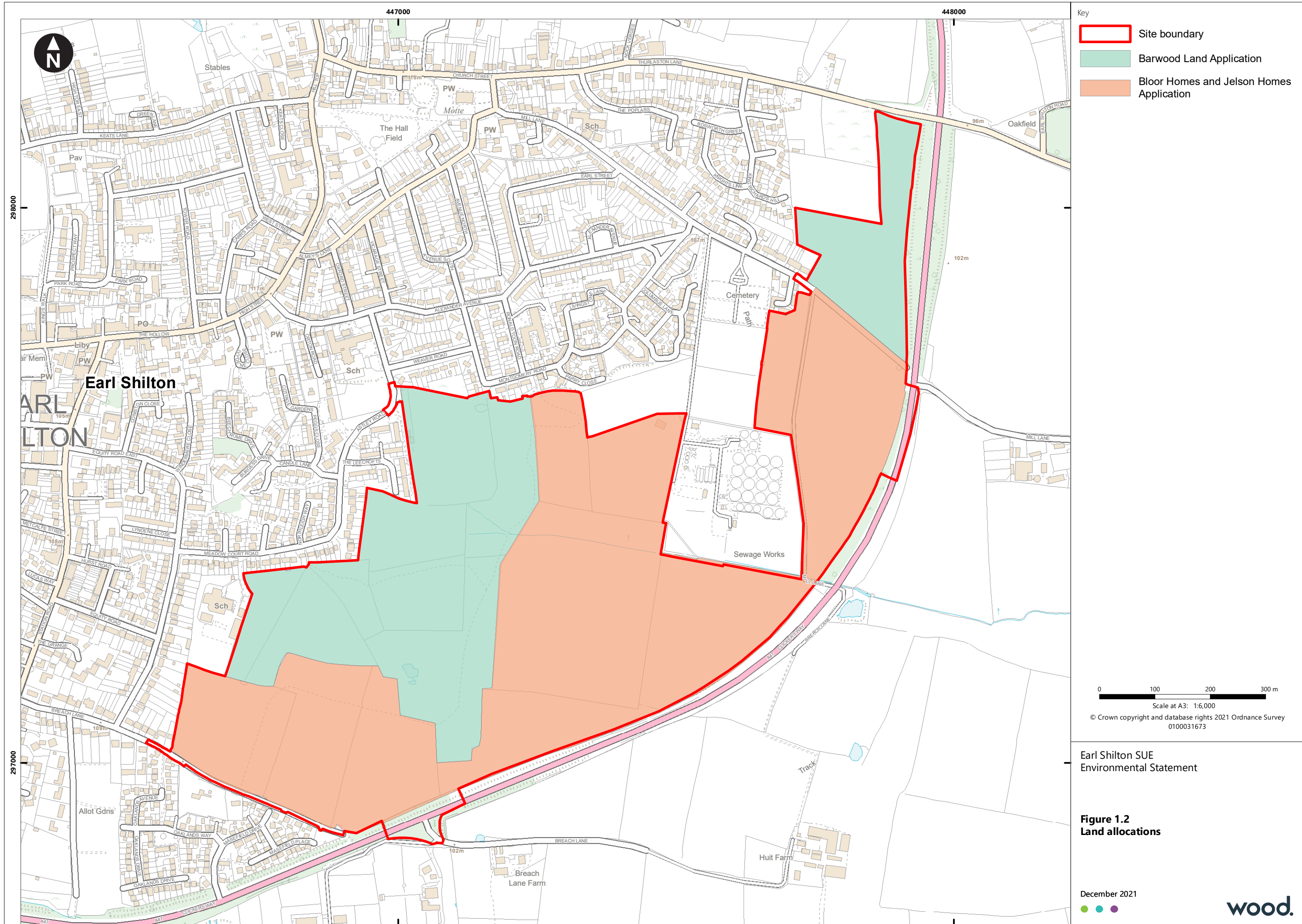
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- 1.1.3 Permission for this mixed-use development will be sought via the submission of two planning applications to HBBC, one from Barwood Land and the other from Jelson Homes and Bloor Homes. This reflects land control at the Site for the respective Applicants (see **Figure 1.2**).
- 1.1.4 The Barwood Land application forms two parcels, covering land east of Astley Road and west of the WwTW, as well as land to the north of Mill Lane (hereafter referred to as 'Application A'). It encapsulates the proposed access on to Astley Road. The Jelson Homes and Bloor Homes application includes all remaining land (hereafter referred to as 'Application B') and would deliver the main new highway access points onto the A47.
- 1.1.5 For the EIA, the two applications have been considered together, and are supported by one Environmental Statement (ES) that collectively considers all proposed works at the Site. Hereafter, these works are referred to as the 'Proposed Development'.
- 1.1.6 The Proposed Development comprises up to 1,500 dwellings, with up to 5.3 ha of space for business uses (Class B8, B2 and E(g))², local centre (including use classes E and hot food takeaway) and a primary school, together with strategic infrastructure including green-space. All other matters are reserved apart from strategic vehicular access.

² Recent change to the *Use Classes Order (Amendment Regulations 2020)*, which came into effect from the 1 September 2020 means that the future planning application for the Proposed Development will include the new class E (to replace the former B1).

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1.2 Document Purpose

- 1.2.1 To support the two planning applications to HBBC, an EIA has been undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)³ (hereafter referred to as the 'EIA Regulations'). The EIA process identifies the key environmental effects of a development and identifies ways that these effects can be reduced and/or managed. An EIA is required by law for large developments that have the potential to cause significant environmental effects. The findings of the EIA process are reported in a document called an ES. The ES forms part of a planning application submission and is available in the public domain for anyone to view.
- 1.2.2 This Non-Technical Summary (NTS) provides a summary of the findings reported in the ES.

³ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 [online]. Available at: <https://www.legislation.gov.uk/uksi/2017/571/contents/made> [Accessed November 2021].

2. The Proposed Development Need and Alternatives

2.1 Need for the Proposed Development

- 2.1.1 HBBC has estimated that at least 9,000 new homes will be required in the borough by 2026. The Council has formally adopted the HBBC Local Development Framework Core Strategy⁴, which sets out the housing requirements and assessed seven broad options for housing growth in the Borough, with eight areas to accommodate the growth needed. The HBBC Core Strategy proposed two SUEs, one for Earl Shilton and one for Barwell to assist in the provision of the long-term housing needs of the Borough. The land south-east of Earl Shilton was allocated for development due to it being one of the least constrained areas, as well as offering a catalyst for the regeneration of Earl Shilton.
- 2.1.2 The Earl Shilton SUE is a key part of HBBC's Core Strategy and would provide up to 1,600 homes. The Earl Shilton and Barwell Area Action Plan (AAP)⁵ describes the vision for the SUEs and the relevant policies to enable growth and maintain the identity and character of the community, provide attractive and accessible living and working environments, whilst developing in a sustainable manner. The Proposed Development would make a significant contribution to meet the current, and identified future, housing needs in Hinckley and Bosworth Borough, and more broadly the East Midlands.

2.2 Consideration of alternatives

- 2.2.1 The EIA Regulations require the Applicants to give due consideration to reasonable alternatives for the Proposed Development.

Development design

- 2.2.2 Since the SUE was allocated in the Core Strategy, the Earl Shilton and Barwell AAP was developed. This considered the scale of development, development objectives, and site-specific requirements along with a Development Framework setting out the broad location of land uses/facilities within the SUE. This was informed by available evidence at the time, and public and stakeholder consultation.
- 2.2.3 Work undertaken for a draft planning application for the SUE in 2014 built on the development framework principles established in the Earl Shilton and Barwell AAP. Subsequent development of the design has been informed by these principles, and further technical and environmental work undertaken as part of the draft planning application in 2014, and more recently as part of the current outline planning application.

⁴ Hinckley and Bosworth Borough Council (2009). Hinckley and Bosworth Borough Council Local Development Framework Core Strategy [online] available at: https://www.hinckley-bosworth.gov.uk/downloads/file/487/core_strategy_adopted_document [accessed 8 July 2020].

⁵ Hinckley and Bosworth Borough Council (2014). Earl Shilton and Barwell Area Action Plan [online] available at: https://www.hinckley-bosworth.gov.uk/downloads/file/4332/earl_shilton_and_barwell_area_action_plan_and_appendices_-_adopted_23_september_2014 [accessed 8 July 2020].

Layout/location

- 2.2.4 The starting point for the design of the Proposed Development, and the location of different land uses on site, was the Development Framework in the adopted AAP, as this was informed by the Local Plan evidence base and public and stakeholder consultation.
- 2.2.5 The design work has focussed on two aligned planning applications. The key masterplan revisions that affect the location of key land uses within the Site are set out below. As this is an outline application with all matters apart from access reserved, further details regarding the layout will be developed as part of future reserved matters applications.

Movement and Access

- 2.2.6 The overall movement and access strategy for the Proposed Development broadly aligns with that set out in the Earl Shilton and Barwell AAP. The strategy provides for easy access for non-local trips onto the A47 at two locations (see **Figure 1.1**), improvement to bus connectivity and enhanced links for local trips and active travel to adjoining residential areas. There has been a change to the main southern access onto the A47 since initial design work in 2014, which is now to be achieved by improving and converting the existing Breach Lane priority junction in to a 4-arm roundabout. This is considered to be an improvement to the AAP strategy which proposed access from Masefield Drive.
- 2.2.7 The main spine road alignment through the Site is similar to that originally proposed in 2014, although rather than continuing south to join Masefield Drive it will turn south-east to join the A47 at the new southern roundabout. The route will still be designed to accommodate future bus services ensuring that the majority of the SUE is within 400 m of a bus route.
- 2.2.8 At the very southern part of the Site, it is now proposed to access a small parcel of land directly off Breach Lane. There would be no through vehicular access from this parcel to the remainder of the SUE, only pedestrian and cycle access. This will improve the deliverability of the Proposed Development and help to fund up front infrastructure.

Primary School and Community Hub Location

- 2.2.9 These uses will remain at the centre of the SUE as required by the Earl Shilton and Barwell AAP. This will ensure good walkability to the facilities. These facilities have been moved slightly eastwards within the Site to split them between the two application areas. The internal movement and access strategy has been adapted to provide flexibility in terms of delivering the infrastructure and site phasing. This would assist in enabling the school to be delivered relatively early on during the overall construction phase of the Proposed Development. The school would be accessed via the proposed new internal loop, and therefore access would not be dependent on the completion of the full spine link to Astley Road.

Open Space Strategy and GI

- 2.2.10 The approach envisaged in the Earl Shilton and Barwell AAP is maintained, which involves provision of some new open space within the SUE. In addition, the Proposed Development includes improvements to the playing capacity of the formal sports facilities at Weavers Springs.

Size and scale

- 2.2.11 The Proposed Development would provide up to 1,500 new homes. This accords with the Earl Shilton and Barwell AAP requirement for a minimum of 1,600 new homes, as the development to the north of the SUE is excluded from this application and is the subject of a separate application

(application reference 20/01225/FUL) by another party independent of the Applicants. Land owned by HBBC within the SUE has also been excluded from these proposals.

- 2.2.12 The scale of other facilities, such as the school and community hub, are all appropriate for the overall size and nature of the SUE.

Summary of design alternatives considered

- 2.2.13 A design led approach has at all stages considered potential environmental impacts and measures to minimise environmental effects, as well as to incorporate, and where possible, enhance existing environmental features and assets.
- 2.2.14 The application design has sought to be consistent with that set out in the Development Framework described in the Earl Shilton and Barwell AAP, as this is the policy starting point. The current proposals accord with the overall principles of the Earl Shilton and Barwell AAP.

3. Description of the Proposed Development

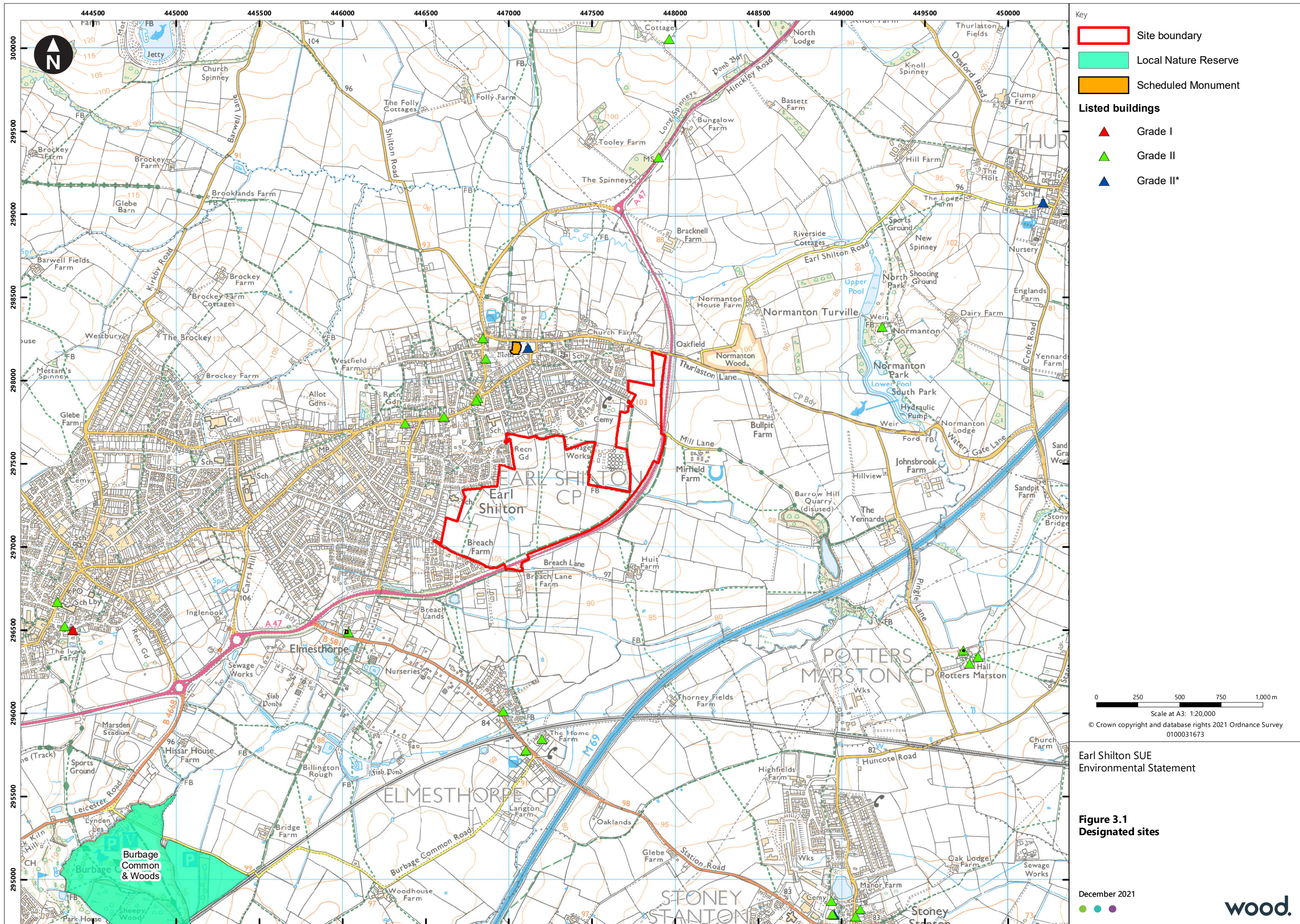
3.1 Location of the Proposed Development

- 3.1.1 The Site is located immediately to the south-east of Earl Shilton, approximately 8 km to the west of Leicester in the borough of Hinckley and Bosworth, as shown in **Figure 1.1**. The total Site area is approximately 66 ha and land control is split between the following companies and public bodies:
- Bloor Homes;
 - Barwood Land;
 - Jelson Homes; and
 - Earl Shilton Town Council.
- 3.1.2 Control of land comprising Application A (see **Figure 1.2**) is split between Barwood Land and Earl Shilton Town Council and accounts for an area of approximately 25 ha. The remainder of the Site, forming Application B (see **Figure 1.2**) is under the control of Jelson Homes and Bloor Homes and covers a total area of approximately 41 ha. Small parts of the application sites encompass other land included for access purposes.

3.2 The Site and surroundings

- 3.2.1 The Site currently comprises predominantly arable farmland with boundary hedgerows and intermittent hedgerow trees (see **Figure 1.1**). It is split into two distinct parcels: north and south of Mill Lane. A Severn Trent Wastewater Treatment Works (WwTW) adjoins the eastern boundary of the Site and is accessed separately from Mill Lane.
- 3.2.2 Key features in the surrounding area are the town of Earl Shilton, which borders the Site to the north and west. The A47 is located to the south and east and provides a bypass around the towns of Hinckley and Earl Shilton and runs from the A5 to the west to Leicester in the east. Land use beyond the A47 to the south and east predominantly comprises open arable agricultural land interspersed by isolated farmsteads and villages such as Huncote, Stoney Stanton, and Croft. Croft Quarry (granite) is also a major feature in the landscape to the east of the Site, beyond the M69, which runs south-west to north-east between the M6 and M1 motorways.
- 3.2.3 There are some designated historical features and nature conservation sites in the proximity of the Site (see **Figure 3.1**). There is a scheduled monument (Earl Shilton Motte and Bailey Castle), within 1 km, located on the northern outskirts of Earl Shilton. There are also several listed buildings within Earl Shilton town centre.

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- Key
- Site boundary
 - Local Nature Reserve
 - Scheduled Monument

- Listed buildings
- Grade I
 - Grade II
 - Grade II*

Earl Shilton SUE
Environmental Statement

Figure 3.1
Designated sites

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- 3.2.4 In terms of biodiversity, the closest Statutory Nature Conservation Site is Burbage Common Local Nature Reserve (LNR), which is located approximately 2.2 km to the south-west of the Site. There are ten Local Wildlife Sites (LWS) and seven potential/historic LWS within 1 km. The closest of these is an unnamed pond, located 90 m off-site, to the south-east of the A47.

3.3 Development proposals

- 3.3.1 The Proposed Development comprises residential, education and employment uses, together with areas of formal and informal open space and landscaping (see **Table 3.1**). The proposed land use parameters are shown in **Figure 1.2**. The residential and employment areas are intended to contribute to the borough's development objectives by providing additional homes and a source of sustainable employment to the local area.
- 3.3.2 It should be noted that the Applicants are seeking permission for the Proposed Development via two separate outline planning applications with all matters, except means of access, reserved for future determination. The components of the Proposed Development described herein are subject to detailed design and approval through the reserved matters process.

Table 3.1 Components of the Proposed Development

Component	Description
Residential dwellings	Up to 1,500 dwellings comprising of a mixture of detached, semi-detached, terraces, flats, and maisonettes.
Employment land	Up to 5.3 ha of flexible employment land to accommodate offices or manufacturing, distribution or other business uses.
Primary school	Primary school on a site of approximately 2 ha for up to 420 pupils.
Community hub	A community hub of approximately 0.5 ha, including retail and a hot food takeaway to meet everyday convenience needs.
Public open space	Approximately 19.3 ha of new and enhanced public open space, including areas of new planting, landscaping, green corridors, and sports pitches. This would also include children's play areas and semi natural greenspace for informal recreation, and an additional 3 ha would comprise Sustainable Drainage Systems (SuDS) features as part of a multifunction green space network. In addition to this there will be dedicated sports pitches extending to an area of approximately 2.5 ha.
Accesses	Five vehicular access points will be created in total. Two accesses direct from the A47 Clickers Way and three connections to Earl Shilton at Mill Lane, Astley Road and Breach Lane. Once the Proposed Development is completed all the accesses, except for Breach Lane, will be connected internally within the Site to create a permeable and flexible movement network, The final masterplan layout will incorporate a range of additional pedestrian and cycle connections to Earl Shilton and the wider rights of way network.
Utilities and services	New services such as gas, electricity, water, telecommunications, and drainage.

Indicative Site layout

- 3.3.3 Residential dwellings would be located in both areas of the Site to the north and south of Mill Lane. The entire parcel of land north of Mill Lane would consist of a residential area and green space, including the integration of SuDS. To the south of Mill Lane, residential dwellings would be located in three distinct areas; the largest would encompass the southern area of the Site, the second largest would be located west of the WwTW, and the smallest would be to the east of the WwTW. The residential areas would be separated from the WwTW by green space and SuDS features.
- 3.3.4 The employment use buildings are planned to be located south of Mill Lane, to the north and north-east of the WwTW. The community hub would be located directly south of the primary school, and towards the east and south-east of the area south of Mill Lane. The school fields/green space would extend northwards from the school boundary to the Site boundary.

3.4 Development phasing and working hours

- 1.1.1 At this stage of the project, and given the nature of the outline permission sought, the exact dates of construction are not known. However, construction of the overall Proposed Development is likely to take approximately 10 years, subject to build-out rates. For the purpose of the EIA, it is assumed that construction would commence in 2026 and be phased over a 10-year period. First occupation of the residential component is assumed to be during 2026.
- 1.1.2 The Proposed Development would be built in phases. Each phase will comprise the following main work elements:
- site establishment, site clearance, finalisation of detailed design, and construction of primary infrastructure (i.e. main roads and utility services such as gas, electricity and water); and
 - build-out, construction site set up, physical construction of buildings, and completion of ancillary development, such as drainage systems, footpaths, or the internal road network.
- 1.1.3 It is expected that construction of the Proposed Development would occur during normal working hours: 07:00 to 18:00 on weekdays (Monday to Friday excluding Bank Holidays), and 08:00 to 13:00 on Saturdays. Works outside of these hours would only occur with prior agreement from HBBC. The Applicants are aware of the COVID19 situation, and relevant government guidance would be adopted for any construction work, inclusive of permitted working hours.

4. The Environmental Impact Assessment Process

4.1 Background

- 4.1.1 Environmental Impact Assessment (EIA) is a process to identify the likely significant effects of a project (in this case the Proposed Development) on the environment. It should be systematic, analytical, impartial, consultative, and iterative, allowing environmental issues to be addressed in the design of a project.
- 4.1.2 Due to the scale of the Proposed Development, comprising of more than 150 dwellings in a site area over 5 ha, the Applicants and Hinckley and Bosworth Borough Council (HBBC) consider that the Proposed Development falls within the criteria of Schedule 2 EIA development, and therefore an EIA is required to be undertaken to support decision making for the outline application as per the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations)⁶.
- 4.1.3 A Scoping Report was produced which served to notify the Local Planning Authority (LPA), (in this case HBBC), of the application and the likely works required to adequately assess the potentially significant environmental effects that may arise during the construction and operation of the Proposed Development. Effects which have the potential to be significant were proposed for further assessment and reporting within the Environmental Statement (ES). Additionally, the Scoping Report serves to request a Scoping Opinion from HBBC, which was received on 12 November 2020. The Scoping Opinion provides statutory consultees views on aspects such as the likely significant environmental effects and proposed assessment methodologies. This has given clarity to the EIA process and the information which is required to be presented in the ES.
- 4.1.4 Drawing upon the Scoping Opinion and subsequent assessment work, the ES includes an assessment of the likely significant environmental effects of the Proposed Development, leading to a conclusion about which effects are assessed as being significant.

4.2 The Environmental Statement

- 4.2.1 The preparation of the ES is one of the key stages in the EIA process, as it brings together information about any likely significant environmental effects, which the LPA will use to inform its decision about whether the Proposed Development should be allowed to proceed.
- 4.2.2 The ES reports the findings of the EIA and presents information about the likely significant environmental effects resulting from the Proposed Development. This Non-Technical Summary (NTS) summarises the key findings of the ES. The topics addressed for the EIA are outlined in **Table 4.1**, with and the key findings for each of the topics as presented in the ES are provided in **Chapter 5**.

⁶ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 [online]. Available at: <https://www.legislation.gov.uk/uksi/2017/571/contents/made> [Accessed November 2021].

Table 4.1 Topics addressed in the Environmental Statement

Topics that need to be assessed under The EIA Regulations	Topics in the Environmental Statement
Population	Chapter 10: Landscape and Visual Chapter 11: Noise and Vibration Chapter 12: Socio-Economics and Health Chapter 14: Traffic and Transport
Health and Wellbeing	Chapter 12: Socio-Economics and Health
Biodiversity	Chapter 7: Biodiversity
Land	Chapter 16: Land Quality
Soil	Chapter 13: Agriculture and Soils
Hydrology	Chapter 15: Water
Air	Chapter 6: Air Quality
Climate	Chapter 8: Climate Change
Traffic and Transport	Chapter 14: Traffic and Transport
Historic Environment	Chapter 9: Historic Environment
Landscape and Visual Amenity	Chapter 10: Landscape and Visual
Major accidents and disasters	Scoped out of the assessment
Noise and Vibration	Chapter 11: Noise and Vibration
Interaction between the above factors	Considered within each individual environmental topic chapter
Cumulation with other projects	Chapter 17: Cumulative Effects Assessment
Transboundary effects	Scoped out of the assessment

5. Technical Topics

5.1 Air quality

Introduction

- 5.1.1 Air quality is affected by the concentrations of pollutants in the air that people breathe. Poor air quality is associated with health problems, especially respiratory conditions. It can also affect vegetation and animals. Legally binding limits on key pollutants are set out in European and UK law to protect both human health and the environment.
- 5.1.2 The main pollutants which are relevant to the Proposed Development include gases, oxides of nitrogen (NO_x) and nitrogen dioxide (NO_2), and fine particulate matter (PM_{10} and $\text{PM}_{2.5}$) in relation to concentrations in air, and nutrient nitrogen and acidity in relation to deposition.

NO_x : A family of gases which can be emitted from cars, trucks, and non-road vehicles as well as industrial sources.

NO_2 : A gas which is part of the NO_x family.

Particulate Matter: A mixture of small particles and liquid particles. The particle pollution is made up of a number of components, including acids, organic chemicals, metals and soil, or dust particles. Particles are grouped into two categories:

- **PM_{10} :** found near roadways and dusty industries are larger than 2.5 micrometres but smaller than 10 micrometres.
- **$\text{PM}_{2.5}$:** found in smoke and haze are 2.5 micrometres and smaller. They can form via gases reaction in the air or be directly emitted from sources such as forest fires.

- 5.1.3 There is good evidence to suggest that increased levels of PM_{10} and $\text{PM}_{2.5}$ have significant health effects, but concentrations (the amount contained within the air) are within legal limits across most of the country. There is more scientific uncertainty about the health effects of NO_2 , and concentrations of this pollutant are close to or above the legal limit in some urban areas. NO_x is not believed to have impacts on human health, it can however affect the environment. Concentrations of air pollutants are generally decreasing in most places in the UK in response to actions to reduce emissions and improve air quality.

Baseline conditions

- 5.1.4 As part of their responsibilities under the Environment Act 1995, local authorities are required to prepare annual reports on the air quality within their administrative areas and declare Air Quality Management Areas (AQMA) in locations where there is a risk of an Air Quality Objective (AQO) being exceeded. The latest Air Quality Annual Status Report (ASR), reporting concentrations monitored in 2019, indicates that the borough has no declared AQMAs at present. Historically, the borough did have two AQMAs, but their status was revoked in 2004. Both AQMAs were declared in relation to high concentrations of NO_2 close to busy roads in the borough.

- 5.1.5 HBBC does not operate any automatic air quality monitoring stations, but during 2019 the borough maintained a diffusion tube network to monitor NO₂ concentrations in the Earl Shilton area. Results show that even at roadside locations, concentrations of NO₂ are well below the annual mean Air Quality Objective of 40 µg/m³. Existing concentrations of NO₂, NO_x, PM₁₀, and PM_{2.5} around Earl Shilton are typical of rural background locations in England and all fall below the Air Quality Objectives. The air quality at the Site can therefore be considered to be Good.
- 5.1.6 An Odour assessment has identified the WwTW as a potential source of odour emissions. In areas of the Site where the odour criterion was predicted to be exceeded, the land has been considered unsuitable for development of high sensitivity receptors, such as residential dwellings. Areas above the odour criterion will be identified and only low sensitivity receptors, such as industrial or commercial buildings are proposed in this area of the Site.
- 5.1.7 There are no significant dust generating industries within close proximity to the Site, however, given the agricultural surroundings, particularly to the south and east of the Site, it is likely that activities such as harvesting and ploughing contribute to the generation of dust. There is no monitoring data available to quantify the baseline dust levels of the surrounding area, however, levels are expected to be low.
- 5.1.8 As a result of the Proposed Development, there may be a short-term increase in dust generation from construction activities to receptors off-site, but these will be controlled via appropriate mitigation measures.

Assessment

- 5.1.9 An assessment of potential air quality effects (including dust) associated with the construction and operational phases of the Proposed Development has been undertaken.
- 5.1.10 During construction, potential dust generating sources include earthworks/ground preparation activities, the movement of plant around the Site and trackout which may result in the transportation of dust and dirt onto the public road network. Collectively, these activities may result in a medium to large magnitude of impact. Residential dwellings surrounding the Site are considered to have a high sensitivity to these activities, whilst ecological receptors are considered to have a low sensitivity due to their distance from the Site. The implementation of mitigation measures will ensure that any impacts during the construction phase remain **not significant**.
- 5.1.11 For PM₁₀ and PM_{2.5} concentrations, it is not predicted that there will be any exceedances of the prescribed thresholds (PM₁₀ - 40 µgm⁻³ and PM_{2.5} - 25 µgm⁻³ annually) during construction or operation of the Proposed Development. For both PM₁₀ and PM_{2.5}, the highest predicted increases are small during operation, at 0.2 µgm⁻³ and 0.1 µgm⁻³ respectively. These slight increases are therefore classified as **not significant**.
- 5.1.12 For ecological receptors, nitrogen deposition rates and concentrations of nitrogen oxide are well below the prescribed thresholds and effects are therefore classed as **not significant**.
- 5.1.13 In summary, air quality effects have been predicted to be negligible at all human and ecological receptors included in the assessment, which means the effects are **not significant**.

Mitigation

- 5.1.14 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Implementation of a stakeholder communication plan;

- Daily inspections to monitor dust levels (on-site and off-site) during construction; and
- The preparation of a Construction Environmental Management Plan (CEMP) and the implementation of good practice measures such as dust suppression and limiting dusty activities on days with high winds, throughout the construction period, as per the Institute of Air Quality Management (IAQM) guidance.

5.2 Biodiversity

Introduction

- 5.2.1 Biodiversity considers the effects on habitats and species of flora and fauna that may potentially be affected by construction and operation of the Proposed Development.

Baseline

- 5.2.2 The Site comprises arable, semi-improved grassland and amenity grassland fields, separated by hedgerows, ditches and trees. There are two ponds present in the centre of the Site (there is also a balancing pond located just off-site to the north and another pond to the east adjacent to/separated by the A47). Areas of scrubland are present, associated with the ponds and boundary features, and Earl Shilton Brook runs through the central and eastern parts of the Site. The Site also has some small areas of hardstanding, in the form of tarmac and are associated with a children's play area.
- 5.2.3 A number of legally protected, priority, or notable species occur or have the potential to occur within the Site, including:
- badger;
 - bats - common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Myotis sp., noctule, leisler's and brown long-eared bats;
 - bird species - including house sparrow, cuckoo, skylark, song thrush linnet, starling, and yellowhammer; and
 - great crested newts.
- 5.2.4 There are no statutory designations of nature conservation value within the Site or immediately adjacent to the Site. The nearest statutory designation is Burbage Common and Woods Local Nature Reserve (LNR) which lies approximately 1.9 km south-west of the Site. This is designated for its unimproved acidic grassland, woodland and scrubland habitats, which support a range of botanical, invertebrate and bird species. The nearest Site of Special Scientific Interest (SSSI), designated for its grassland habitats is Croft Hill SSSI which lies approximately 3 km to the east of the Site. Additionally, the Site lies within the Impact Risk Zone of Narborough Bog SSSI located to 6.8 km to the east.
- 5.2.5 Two non-statutory sites are located in the vicinity of the Site, i.e. Normanton Wood Hedgerow Potential Local Wildlife Site (pLWS) and Hay Meadow LWS.

Assessment

- 5.2.6 Survey work has been undertaken at the Site, including Extended Phase 1 Habitat surveys and the following species surveys: badger, bats, water vole, great crested newt, otter, reptile, breeding birds,

and barn owl. **Table 5.1** provides a summary of the significance and high-level rationale associated with the significance ratings applied.

Table 5.1 Summary of assessment and significance outcomes

Receptor and summary of predicted effects	Significance	Summary rationale
Non-statutory Designated Sites	Minor	Low likelihood of impacts to non-statutory sites.
Arable	Minor/moderate	Large areas of low value habitat lost and replacement of a greater value habitats.
Semi-improved Grassland	Minor/moderate	Areas of a relatively greater value habitat lost, will be offset through the provision of replacement species-rich grassland.
Rough Grassland Margins	Minor/moderate	Minor losses to low value habitat, will be enhanced through species-rich grassland seed mix.
Hedgerows and trees	Minor/moderate	Minor losses to greater value habitats, will be offset through the provision of new hedgerows/trees of a greater/equal area/length to that lost.
Scrub	Minor	Minor losses to low value habitat.
Stream and ditches	Minor	Banks enhanced with species-rich seed mixture.
Ponds	Minor	Enhancements to pond through scrub clearance.
Badger	Minor/moderate	Loss of foraging grounds.
Bats	Minor/moderate	Potential impacts from lighting, enhancements through new tree/hedgerow planting.
Water Vole	Minor	Potential impacts to bankside vegetation and suitable Water Vole habitat through the construction of bridges.
Other Mammals	Minor	Creation of new habitats to provide opportunities for a range of common mammals.
Birds	Minor	Provision of new trees/hedgerows provide enhanced nesting/foraging habitat for a range of bird species.
Great Crested Newt	Minor	Provision of species-rich grassland would provide enhanced terrestrial habitat for this species.

- 5.2.7 Following mitigation and enhancement measures, **no significant effects** to biodiversity would be anticipated, overall impacts are considered to be positive at the local level and will ensure no net loss in biodiversity value.

Mitigation

- 5.2.8 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Tree and hedgerow loss will be kept to a minimum;
 - All retained species-poor hedgerow is to be enhanced via appropriate management;
 - Any losses of the hedgerows and trees will be offset by new tree and hedgerow planting of a length / area greater than that lost. Where roads intersect the green corridors, sensitive lighting and new planting will be carried out to help bats navigate across the new roads;
 - During the operational phase, although there is likely to be an increase in lighting within the Site, 'dark' corridors will be maintained using a sympathetic lighting regime. 'Dark' corridors will be maintained along existing and new hedgerows to maintain suitable navigational and foraging opportunities for bats. Where lighting is necessary during construction, any potential light spillage will be reduced by via appropriate construction methods;
 - As an enhancement, new bat boxes will also be provided throughout the Site on retained mature trees, which will provide additional roosting opportunities for bats;
 - As an enhancement, new bird nest boxes will be provided on suitable retained trees / new buildings within the Site, within the retained areas of open space and on new buildings. These will provide new nesting opportunities for a range of birds;
 - The areas of grassland and arable land that are to be converted to open space will be sown with a native species-rich wildflower grassland mixture;
 - Retained areas of semi-improved grassland will be enhanced through the oversowing of a species-rich wildflower seed mixture;
 - Any new roads crossing over the retained section of the stream will use clear-span bridges wherever possible, or use culverts designed to maintain wildlife corridor functions and minimise impacts on bankside vegetation;
 - Where appropriate, as an enhancement, the banks of the stream will be sown with a native species-rich seed mixture tolerant of wet conditions and the vegetation along the banks will be allowed to grow long and tussocky;
 - The creation of log piles / hibernacula within the Site, associated with the new attenuation features and in open areas, will also provide new suitable new hibernation opportunities for amphibians and reptiles; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.3 Climate change

Introduction

- 5.3.1 The climate assessment identifies the likely significant effects of Greenhouse Gas (GHG) emissions from the construction and operation of the Proposed Development. The aim of the GHG assessment is to calculate the emissions that are anticipated to be produced as a result of the Proposed Development. These calculations have been used to inform the extent to which the Proposed Development has a material effect on the UK Government's targets for decarbonisation.
- 5.3.2 Carbon dioxide (CO₂) is the primary GHG, and carbon dioxide equivalent (CO₂e) is a quantity that describes, for a given amount of GHG emissions, the amount of CO₂ that would have the same global warming potential, when measured over a timescale of 100 years.

Baseline

- 5.3.3 The Site currently comprises predominantly arable farmland with boundary hedgerows and intermittent hedgerow trees. Agricultural land absorbs certain GHGs (such as CO₂ from the atmosphere) whereas building, uses materials that contain carbon (such as concrete) and results in the emission of carbon into the atmosphere from vehicle and machinery use. An increase in GHG emissions is anticipated during the construction and operation of the Proposed Development, when compared to the current baseline.

Assessment

- 5.3.4 The only receptor for GHG emissions is the global atmosphere and as such, any amount of Greenhouse-Gas emissions could be significant.
- 1.1.4 During construction, emissions may arise from 3 key areas, as follows:
- Embodied carbon of materials: this represents the sum of GHG emissions covering extraction of raw and primary materials and their manufacture and refinement into products and construction materials, as well as the transport and supply logistics to the factory gate.
 - Surface access: associated with access to the Site and encapsulates trip lengths and commuting distances of staff, for example.
 - Energy: represents on-site energy use resulting from the construction process.
- 5.3.5 Operational GHG emissions relate to any processes or building energy use required that is not related to construction (e.g. electricity supply to the Site, heating of houses etc.).
- 1.1.5 Across the construction phase of the Proposed Development, the calculated estimates indicate that GHG arising from construction processes, embodied carbon of materials and energy, would total 696 ktCO₂e. During the operational phase, the calculated estimates indicate that total GHG arising from maintenance and repair, water, operational energy and transport would total 842 ktCO₂e. Therefore, overall GHG emissions associated with the Proposed Development are estimated to be 1,537.5 ktCO₂e.
- 5.3.6 When compared to the UK Carbon Budgets, which are guiding the National transition to Carbon Net-Zero, the Proposed Development is small and will not materially affect the UK's ability to achieve Net-Zero and as such, is **not significant**.

Mitigation

- 5.3.7 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include, but are not limited to:
- Using Green building materials;
 - The reuse of materials where possible;
 - The reuse of soils on Site;
 - Tree planting and landscaping to absorb GHG emissions; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.4 Historic environment

Introduction

- 5.4.1 The Historic Environment comprises of “*all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora*”⁷. This includes built heritage, parks, and gardens, as well as buried archaeological remains, both at a designated and non-designated level.
- 5.4.2 Designated heritage assets are those that have been identified as having heritage values that warrant preservation through legislation and can include both physical structures and buried remains. Designated assets include listed buildings, scheduled monuments, conservation areas, wrecks, battlefields and registered parks and gardens.
- 5.4.3 Non-designated heritage assets are stated as being “*buildings, monuments, sites, places, areas, or landscapes identified as having a degree of significance meriting consideration in planning decisions*”⁷ but are not formally designated heritage assets.
- 5.4.4 Both designated and non-designated heritage assets are protected locally through regional planning policies, and nationally through policies.

Baseline

- 5.4.5 A desk-based assessment of the historical baseline has been undertaken. This includes review of previous desk-based assessments undertaken at the Site, previous geophysical surveys, and evaluation trenching.
- 5.4.6 The historic baseline of the Site includes prehistoric activity (date to Bronze Age, Iron Age, and Romano-British) in the land north of Mill Lane, and medieval activity in the land south of Mill Lane. There are no records of significant archaeological material dating from the modern period within the Site.
- 5.4.7 The Historic Environment Record, located 129 non-designated heritage assets, within 1 km of the Site and 11 within the Site. The assets located within the Site date from the Iron and Bronze ages. Examples include evidence of a Romano-British Farming System.

⁷ Ministry of Housing, Communities and Local Government (2021). National Planning Policy Framework Annex 2: Glossary. (Online). Available at: <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary> (Accessed September 2021).

- 5.4.8 There are no designated heritage assets within the Site, but there are 18 within 2 km of the Site, including two conservation areas, two scheduled monuments and 14 listed buildings. The two conservation areas are the Barwell Arthur Street Conservation Area and the Earl Shilton Conservation Area. Of the 14 listed buildings, the Church of St Simon and St Jude is the only Grade II* listed building. Whilst the church spire is visible from the Site, the Site is not visible from the church grounds.
- 5.4.9 There are several field boundaries with the Site that marked by hedgerow, dating back to at least 1886.
- 5.4.10 The Church of St Simon and St Jude is located within the northern edge of the town. The church is set on raised ground in a central location bordered by Almonry Road, and Church Street on three sides, with the motte and bailey castle on its fourth side. These roads are lined by two-storey residential dwellings, forming a central square where the church is seen as the focal point. The church is located on a high position that provides prominence to the church, particularly when approached from the east. The church spire can be seen in views on the approach along Church Road, to the east, as well as in views from varying places within and outside Earl Shilton including within the Site.
- 5.4.11 The principal contribution of the setting of the church is to historic interest. Historic interest is drawn from the people who are buried within the churchyard and have been associated with the church's history and events that have taken place there. The visual relationship between the church and the town contributes to this interest, particularly the view of the church spire in longer views on the approach along Church Road, which would have formed the primary route of travel to the current and former parish church.

Assessment

- 5.4.12 Following the implementation of mitigation measures, **no significant effects** to archaeological remains would be anticipated. Minor adverse effects would still be anticipated where archaeological remains are to be removed through a programme of archaeological mitigation.
- 5.4.13 The Proposed Development would result in the loss of Historic Landscape Character within the Site during the construction phase through change of land use and removal of some boundaries. This is anticipated to be a minor adverse effect, which would **not be significant**.
- 5.4.14 The Site comprises hedgerows and field boundaries that date to at least 1886. There is insufficient cartographic data to confirm whether the boundaries are pre-1850 and, therefore, whether they would be considered important under the Hedgerows Regulations. However, these hedgerows do still contribute to historic legibility of the landscape. Many of these boundaries will be left in-situ and enhanced by new planting. This will preserve some legibility of historic landscape character, resulting in, at worst, a low magnitude of change, on an asset of low heritage significance, which would **not be significant**.
- 5.4.15 The Site will be seen in views towards the spire of the Church of St Simon and St Jude along Thurlaston Road. The presence of the Site during the construction and operation phase will result in, at most, a negligible magnitude of change to the historic interest of the church by changing the view on the initial approach to the town, along which the church is a prominent feature. However, this will not represent more than a negligible magnitude of change to the setting of the church, due to the existing modern residential development that separates the Site from the church. The residential buildings will not impact from where its key historic and architectural interests are discerned in its immediate environs and churchyard. In addition, key relationships between the church, its churchyard and the people who experience its interests will be unaffected by the

development of residential buildings. A negligible magnitude of change to an asset of high heritage significance would result in a negligible adverse effect which would **not be significant**.

Mitigation

- 5.4.16 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Retaining views of the Church of St Simon and St Jude Church spire from along public rights of way (PRoW) along the east of, and within the Site;
 - Additional tree planting along the eastern and southern boundary to mask the built form of the site;
 - Hedgerow loss to be kept to a minimum;
 - All retained species-poor hedgerow is to be enhanced via appropriate management;
 - All excavated archaeological assets will be recorded in accordance with an agreed method; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.5 Landscape and visual

Introduction

- 1.1.6 Landscape and visual effects are closely related; however, they are considered separately when you assess them. The first describes landscape and areas of landscape character, while the second describes the effects on views and visual attractiveness as experienced by people.
- 1.1.7 The landscape assessment has considered the potential for the Proposed Development to result in potentially significant landscape effects on areas of unique landscape characteristics, as identified by local authorities.
- 1.1.8 The visual assessment is based upon changes in the views that will be experienced by groups of people. This includes residents, walkers, and cyclists.

Baseline

Landscape

- 5.5.1 Earl Shilton exerts a strong urban influence, especially within the northern and western parts of the Site where views back to the urban edge of Earl Shilton, create an urban fringe character. The Site is comprised of large areas of grassland with a network of informal paths and five Public Rights of Way, running predominantly in a north-south direction. The Site also features medium to large arable fields, enclosed by hedgerows, and does not feature any woodland.
- 5.5.2 There are two noticeable high points within the topography of the Site; one to the north and one to the south, separated by a low-lying valley associated with Earl Shilton Brook. From this valley, the land rises, giving Earl Shilton its character of being situated on a ridgeline. The Site and surrounding landscape (within a 1 km radius) are not covered by any national or local landscape designations.

- 5.5.3 The Site as a whole is not visible from any single vantage point due to a combination of scale, the presence of the WwTW and intervening topography and vegetation within the Site and its immediate surroundings.
- 5.5.4 At a national level, the Site and Study Area lie within National Character Area (NCA) 94: Leicestershire Vales which extends between Hinckley in the west to Leicester in the north-east and southwards towards Market Harborough and Lutterworth. At a local level, the Hinckley and Bosworth Borough Landscape Character Assessment place the Site within Urban Character Area (UCA) 10: Earl Shilton, which covers the settlement of Earl Shilton and adjoining Sustainable Urban Edge (SUE) allocation. The agricultural landscape to the east of the A47 and south of Thurlaston Lane is defined as Landscape Character Area (LCA) F: Burbage Common Rolling Farmland, which encompasses an open expanse of gently rolling farmland below the ridgeline of the urban areas of Hinckley, Burbage, Earl Shilton and Barwell to the north and west.

Visual

- 5.5.5 The potential extent of visibility within the 1 km Study Area is primarily concentrated to the south, east, and north of the Site where the open, rolling agricultural fields and limited tree cover facilitate open views. The screening provided by existing built development within Earl Shilton means that the settlement falls outside of the zone of theoretical visibility with the exception of its southern edge, and also the land to the north and north-west of the town is also largely excluded from the zone of theoretical visibility. To the south-west of the Site, fragmented zone of theoretical visibility coverage extends across Elvesthorpe.
- 5.5.6 Principal views of the Site are available to visual receptors within close proximity to the Site, notably from the southern and eastern edges of Earl Shilton, local PRoWs that lie adjacent to or pass through the Site, and roads (e.g. Thurlaston Lane and the A47) within the immediate vicinity. With the exception of the PRoWs that pass through the Site, these views are typically restricted to the edges and elevated areas of the Site, with the lower lying and central parts of the Site typically screened from view by a combination of vegetation and lower lying topography. Views are typically of fields and recreation grounds that lie immediately adjacent to the visual receptors. Depending upon the angle of view, existing urban development associated with Earl Shilton is often visible, particularly when viewed from locations to the south or east of the Site.
- 5.5.7 From further afield to the south and east, views of the Site are limited due to the descending topography and the presence of constructed cuttings and embankments associated with the A47. Whilst existing views of the Site are more limited, there is the potential for future views of elevated components of the Proposed Development from these locations. These views are typically available across agricultural land and are filtered through intervening vegetation associated with field boundaries and local roads.
- 5.5.8 Visually the Site has developed into an urban fringe landscape. The previous rural framework has been altered by its proximity to Earl Shilton, and the presence of a variety of infrastructure elements.

Assessment

Landscape

- 5.5.9 The landscape and visual assessment has assessed the effects during the construction and operational phases of the Proposed Development on landscape elements within the Site, and on the character of the host Urban Character Area (UCA 10: Earl Shilton) and on the neighbouring

Landscape Character Area (LCA F: Burbage Common Rolling Farmland). This has concluded that there would be **no significant** landscape effects as a consequence of the Proposed Development.

Visual

- 1.1.9 The visual assessment of effects on receptors' views as a consequence of the Proposed Development has considered the extent to which the Proposed Development can be viewed and the degree to which the composition of baseline views would change. The assessment has considered the views related to 29 visual receptor groups as follows:
- residents at 13 individual or small groups of private properties;
 - recreational receptors travelling along 11 PRoWs and two highway footpaths (along Mill Lane and the A47);
 - recreational receptors using an area of public open space (Weaver Springs Park); and
 - drivers and their passengers travelling along a primary route (the A47) and a single local highway.
- 5.5.10 The assessment, which reflects a worst-case winter scenario when vegetative screening is minimal, has concluded that significant operational visual effects would occur for the following groups of receptors:
- Residents at private properties on Mill Lane (five properties) and Union Mill Close (five properties);
 - Residents at private properties on Astley Road (five properties to the east of Northleigh Way);
 - Residents at private properties on Montgomery Road (six properties);
 - Users of the PRoW in the north-eastern part of the Site (PRoW no.1);
 - Users of the PRoW immediately south of the WwTW (PRoW no.2);
 - Users of the PRoW running centrally through the Site (PRoW no.3);
 - Users of the PRoW in the western part of the Site (PRoW no.4); and
 - Users of the PRoW immediately adjacent to the eastern edge of the Site (PRoW no.5).
- 1.1.10 All of the significant visual effects would occur for receptors that reside in private properties adjacent to the Site boundary or are using PRoWs adjacent to or within the Site itself. For these receptors, the effects relate to their proximity to the Site, absence of screening and the impact to their views, which would be altered by the Proposed Development, during both its construction and subsequent operation/occupation phase.
- 1.1.11 Baseline views of arable fields, grassland, hedgerows/hedgerow trees, and in some cases longer distance views towards the surrounding countryside, would be replaced by views that are greater in complexity as a consequence of contrasting construction activities, including the periodic deployment of cranes during the construction phase. During the subsequent operational phase, views would be foreshortened or framed by occupied built form. Structural planting to the Sites' boundaries and within the Site, retention of existing hedgerows and further maturation of hedgerows along the A47 corridor would play a role in softening and filtering views of built development, which would be introduced into baseline views that already contain the built form of Earl Shilton on the ridgeline to the north and west of the Site, depending on the direction of travel for users of PRoWs.

- 1.1.12 The private residential receptors for which significant visual effects are predicted to occur, would experience localised effects, representing a small proportion of the residents within the community of Earl Shilton. The visual assessment has also reported the worst-case scenario during the winter months, when vegetative screening from garden or boundary vegetation is minimal, with effects for a number of receptors likely to reduce during the summer months. Furthermore, whilst the inclusion of private residential views was agreed through the Scoping Opinion, there is an established planning principle that private individuals do not have a right to a view. The visual amenity of receptors using publicly accessible community spaces within Earl Shilton would therefore **not be significantly affected**.
- 1.1.13 The presence of the five PROWs within the Site and the close proximity of users to the Proposed Development, allied with the nature of their baseline views, means that moderate to high levels of visual change would occur. Local opportunities for views that are more rural in nature, would continue to exist to the east of the Site, and north of Earl Shilton, for residents in Earl Shilton seeking this type of view.
- 1.1.14 For each of the remaining visual receptors, views of construction activities relating to the Proposed Development and its subsequent operation/occupation are often oblique or transient and filtered by existing vegetation, which, allied with increasing separation distances results in a minor to moderate level of effect. Visual effects of these receptors are considered **not significant**.

Mitigation

- 5.5.11 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Additional tree planting along the eastern and southern boundary to mask the built form of the Site;
 - Hedgerow loss has been kept to a minimum;
 - All retained species-poor hedgerow will be enhanced via appropriate management, such as widening or thickening with additional planting;
 - The implementation of construction management measures to avoid/minimise visual disturbance; and
 - The preparation of a CEMP and LEMP and the implementation of good practice measures throughout the construction period.

5.6 Noise and vibration

Introduction

- 5.6.1 Noise and vibration can have an effect on the environment and on the quality of life, health and well-being of individuals and communities. It can also pervade and affect the quality of natural resources. The assessment of noise considers the effects on occupiers of residential properties within the vicinity of the Proposed Development and changes in the noise environment of local communities.

Baseline

- 5.6.2 The Proposed Development currently comprises of agricultural land, there are few sources of noise within the Site, although there is an existing WWTW located adjacent to the eastern boundary of

the Site. Observations of the WWTW noted that there was generally no noisy operations taking place, with the exception of heavy vehicle movements.

- 1.1.15 The A47 lies immediately to the south and east of the Proposed Development and has traffic flows which create noise emissions during the day and night. Noise emissions from the A47 were previously noted to be continuous during the day, with steady traffic flows also likely during the night-time period.
- 5.6.3 Further afield is the M69 motorway, which is located to the south-east of the Site. It has been noted that traffic noise from this highway was not audible at the Site.

Assessment

- 5.6.4 In general, the predicted effects from the Proposed Development are negligible, and are considered **not significant**.
- 5.6.5 The exception to this is St Simon and St Jude Primary School, which is predicted to experience a **significant adverse effect** due to additional traffic using the junction of Astley Road and Alexander Avenue to access the Site. Mitigation may be required to ensure the school's amenity areas and teaching areas are not adversely affected by the Proposed Development.
- 5.6.6 No Noise Sensitive Receptors (NSRs) were identified or are considered likely to occur during the operational phase of the Proposed Development, due to the proposed location of the commercial elements.
- 5.6.7 Vibration originating from construction activities on-site has been scoped out of the assessment due to activities being temporary and likely to only be in proximity to sensitive receptors for short durations. Best practices measures and a piling methodology will be developed and included as part of the CEMP. During operation, it is not expected that vibration sources are likely to occur due to the proposed location of the commercial units. In all instances, if a vibratory industry was to occupy a unit, it would require engineering to mitigation vibration at source in any case.
- 5.6.8 Vibration relating to the A47 is scoped-out of the assessment, in line with Section 1.4 of the 'Design Manual for Roads and Bridges' (LA 111- Noise and Vibration), which states *"Operational vibration is scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance, so operational vibration will not have the potential to lead to significant adverse effects"*⁸.

Mitigation

- 5.6.9 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Noise emissions for the operation of the Proposed Development will be designed to meet a noise emissions criterion of +5dB(A) above background noise level at the worst affected receptors; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

⁸ Highways England (2020). Design Manual for Roads and Bridges, LA 111 – Noise and Vibration (Revision 2) [online]. Available at: <https://www.standardsforhighways.co.uk/dmrB/search/cc8cf7-c235-4052-8d32-d5398796b364> [Accessed 30 July 2020].

5.7 Socio-economics and health

Introduction

- 5.7.1 Socio-Economics and health considers the effects of the Proposed Development on different groups of people as well as the wider economy. It explores how it is expected to support economic growth, creating new employment and business opportunities both locally and across the region.

Baseline

Education

- 5.7.2 All four of the schools in the area presently have capacity for additional students; 137 between the three primary schools and 174 in the 11 to 16 range, although a shortfall of 97 places is forecast by January 2022.

Health

- 5.7.3 The health of people in Hinckley and Bosworth is varied compared with the England average, with higher average life expectancy, but a disparity of 5.5 years lower for men and 4.6 years lower for women in the most deprived areas of Hinckley and Bosworth, compared to the least deprived areas. There is a lower percentage of children in low-income families than the England average and a lower level of child obesity.
- 5.7.4 The nearest doctors' surgery to the Site is the Heath Lane Surgery. Earl Shilton is also within the practice catchments of the Barwell Medical Centre and the Centre Surgery in Hinckley.

Retail

- 5.7.5 Earl Shilton's retail provision is concentrated in the town centre (located approximately 300 m to the north-east of the Site boundary). The town centre provides a selection of local services including a Co-op supermarket, other everyday shops, and public houses.
- 5.7.6 The employment land review undertaken on behalf of the borough identified a need for between 10.2 ha and 48.2 ha of employment land (that includes small and medium sized industrial properties) between 2019 and 2036. Note that this is in addition to the employment allocation identified in the Core Strategy as part of the Proposed Development.

Recreation

- 5.7.7 Earl Shilton Town Cricket and Sports Club, and Kingscroft Bowls Club are about 1 km to the north of the Site. There is a further bowls club in Barwell about 4 km to the west of the Site. Heath Lane Academy Sports Hall was refurbished in 2004 and is about 2.6 km from the Site. The Leicestershire and Rutland sports facility assessment indicates that the quality of the sports hall is very good, and that the changing facilities are also good.
- 5.7.8 Hinckley Leisure Centre is a large centre located approximately 6 km to the south-west of the Site. The centre was refurbished in 2009 and provides a range of facilities, including an eight court sports hall, spin studio, fitness studios, gym, and swimming pool.

- 5.7.9 HBBC's Open Space and Recreation study found there is a deficiency in amenity areas, formal parks, and facilities for young people. The study also concluded that a significant challenge facing Earl Shilton is the lack of natural and semi-natural open space.
- 5.7.10 Within or immediately adjacent to the Site boundary there are five PRowWs (three footpaths and a bridleway), a cycle route/bridleway (along Mill Lane) and numerous informal footpaths.

Employment

- 5.7.11 Economic activity in the borough is high relative to the region and Great Britain. The proportion of employment of managers, professional occupations and associate professional and technical occupations is higher than for the region and Great Britain. The proportion of employment of process plant and machine operatives, and elementary occupations is low relative to the region but higher than that for Great Britain. As of 2019, 2,250 people in the borough were employed in the construction sector.

Housing

- 5.7.12 The Hinckley and Bosworth Housing Strategy 2018 to 2023 highlighted key issues facing the borough including:
- availability of affordable housing;
 - support for people's needs and aspirations; and
 - housing standards.
- 5.7.13 The Council's Housing Needs Study identified that it expects there will be an increase in the number of households with dependent children, which will impact on the type of housing required. The study also identified that there is a need for affordable rented housing in the area.

Population

- 5.7.14 The population of Hinckley and Bosworth is projected to increase by 24% between 2018 and 2043. This is higher than the region (14.2%) and England (10.3%). With the overall change in the population will also come changes to the age profile. The largest growth will be in people aged 65 and over. In 2043, it is projected that there will be 35,986 people aged 65 and over, this is a 46% increase. The population aged 85 and over is projected to increase by 112%. There is projected to be an 18% increase in the number of children (those aged under 15).

Assessment

Education

- 5.7.15 The capacity of education in the town will be increased through the provision of land for a new primary school within the Site. Financial contribution will be made to the capacity of education provision up to 18 years old. Potential effects on education facilities were scoped out of the assessment.

Health

- 5.7.16 The capacity of primary healthcare provision in the town will be increased through the provision of a financial contribution to enhance the capacity of the Heath Lane Surgery. Potential effects on health facilities were scoped out of the assessment.

Retail

- 5.7.17 The Proposed Development offers an opportunity to increase local expenditure. The net scale of these benefits will be determined by the expenditure patterns of the residents of the Proposed Development, and the extent to which these residents move into the area from elsewhere. The potential for increased spend in the local economy provides the opportunity to help meet the objectives of the Earl Shilton District Centre Delivery Plan. A **moderate (potentially significant) beneficial effect** in relation to spending from the new community in the local economy is anticipated.

Recreation

- 5.7.18 New accessible open space and landscaping forms a major part of the Proposed Development. The Proposed Development would meet the requirements of the Core Strategy in full to meet the needs not only of new residents but also of the existing community.
- 5.7.19 The Proposed Development includes open space provision that will help meet the needs of existing and future residents of Earl Shilton. Given the existing shortfalls in some elements of open space in Earl Shilton, a **moderate beneficial effect** is therefore identified.

Employment

- 5.7.20 The Proposed Development will directly support 225 full time equivalent (FTE) jobs and 337 indirect and induced FTE jobs over the construction period, which could include construction related apprenticeships. The Site will also support additional temporary employment associated with construction of new housing, the primary school, employment area and community hub. A **moderate (potentially significant) beneficial effect** in relation to employment during the construction phase is therefore anticipated.
- 5.7.21 The Proposed Development would provide 5.3 ha of flexible employment land to accommodate offices or small-scale manufacturing, distribution or other business uses. The community hub would include a small retail centre. The Proposed Development would also include a 2-form entry school that would also provide employment during the operation phase. The Proposed Development would provide in the region of 900 jobs during the operational phase. A **moderate (potentially significant) beneficial effect** in relation to employment during the operational phase is therefore anticipated.

Housing

- 5.7.22 HBBC has estimated that at least 9,000 new homes will be required in the borough by 2026. The Adopted HBBC Local Development Framework Core Strategy sets out this requirement and assessed seven broad options for housing growth in the Borough, with eight areas to accommodate the growth considered. The HBBC Core Strategy proposed two SUEs, one for Earl Shilton and one for Barwell to assist in the provision of the long-term housing needs of the borough. The land south-east of Earl Shilton was allocated for development due to it being one of the least constrained areas, as well as offering a catalyst for the regeneration of Earl Shilton.

- 5.7.23 The Earl Shilton SUE is a key part of the HBBC's Core Strategy and would provide a minimum of 1,600 homes, of which the Proposed Development would provide 1,500 homes. The Proposed Development would therefore help to meet the current and identified future housing needs.
- 5.7.24 A range of house types and tenures of between one and five bedrooms will be provided to meet the needs of all ages and physical abilities. Up to 20% of the dwellings within the Proposed Development will be affordable housing. Overall, a major **significant beneficial effect** is anticipated in relation to housing as a result of the Proposed Development is anticipated.

Mitigation

- 5.7.25 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- Increased capacity of education in the town through the provision of land and capital funding for a new primary school;
 - Increased provision of primary healthcare via a financial contribution to enhance the capacity of the Heath Lane Surgery;
 - Temporary diversions of all footpaths, bridleways and cycleways will be agreed with HBBC and PRoW will be upgraded; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.8 Agriculture and soils

Introduction

- 5.8.1 Under the Agricultural Land Classification (ALC) System, agricultural land is graded according to the degree to which its physical characteristics impose long term limitations on agricultural use.
- 5.8.2 The principal physical factors influencing agricultural production are climate (temperature and rainfall), site (gradient, micro relief, and flood risk) and soil (texture, structure, depth, and stoniness). These factors together with interactions between them form the basis of classifying land into 1 of 5 Grades; Grade 1 being land of excellent quality and Grade 5 land of very poor quality. Grade 3 land is divided into 2 Subgrades, 3a and 3b, and constitutes half of the agricultural land in England and Wales.
- 5.8.3 Best and Most Versatile (BMV) agricultural land is defined as 'land in Grades 1, 2, and 3a of the Agriculture Land Classification System'.

Baseline

- 5.8.4 Approximately 58% of the Site is BMV agricultural land with a mix of Grade 2 and Grade 3a land. The remainder of the Site is predominantly non-BMV Grade 3b agricultural land. A small proportion of the Site (8%) has not been surveyed and therefore remains unclassified. These unclassified areas relate to a strip of land along the length of the eastern boundary adjacent to the A47 and the existing playing fields to the north of the Site. As a worst-case, it is assumed that this land is BMV agricultural land. The Grade 3b land is concentrated within a central belt of the Site, with Grade 2 and 3a generally lying to the north and south of this belt.

- 5.8.5 The soil mapping indicates that most of the Site is covered by slightly acid, loamy and clayey soils with impeded drainage. The northern and southern parts of the Site are covered by freely draining, slightly acidic loamy soils. The soil descriptions and characteristics indicate that the soils of the site are classified as Wick 1 and Wimple 3, which are described as⁹:
- Wick 1: *"deep well drained coarse loamy and sandy soils, locally over gravel. Some similar soils affected by groundwater. Slight risk of water erosion"; and*
 - Wimple 3: *"reddish fine loamy or fine silty over clayey soils with slowly permeable subsoils and slight seasonal waterlogging. Some similar clayey soils on brows. Slowly permeable seasonally waterlogged fine loamy and fine silty over clayey soils on lower slopes".*

Assessment

- 5.8.6 ALC surveys of the Site were undertaken in 1997 and 2020, the latter of which was produced by Land Research Associates on behalf of HBBC and used to inform the assessment.
- 5.8.7 As all the land within the Site will be used as part of the Proposed Development, and the Proposed Development does not include any future agricultural use, there will be a permanent loss of between 20-50 ha of BMV agricultural land, which represents a medium impact. The level of effect on BMV agricultural land is major and, therefore, deemed **significant**. There is unlikely to be any large-scale permanent loss of soil resources associated with the construction and operation of the Proposed Development. Measures have been embedded to manage the removal of topsoil/subsoil and reuse these soils on-site. This will, therefore, result in soils being progressively stripped as the Proposed Development progresses, with soils initially being stockpiled or used to create perimeter screening bunds followed by reuse as part of the wider green infrastructure. However, there is expected to be a temporary loss of access to soil resources, classified as a moderate impact and therefore **significant**.
- 5.8.8 Soils structures are also expected to be impacted; whilst Wick soils are relatively resistant to structural damage, Wimple soils are less so. Given the implementation of suitable mitigation, as a worst-case the impact is classified as moderate and therefore **significant**.
- 5.8.9 It is noted that whilst the effect of the loss of agricultural land and temporary loss of soil resources is significant, the selection of the Site in the HBBC Core Strategy already incorporates the requirements of the National Planning Policy Framework to give weight to the use of poorer non-BMV agricultural land over higher quality BMV agricultural land and protect soil resources. Accordingly, the significance of these effects has already been considered and acknowledged through the Site selection process and no further mitigation is required.
- 5.8.10 The Proposed Development would provide other ecosystem benefits through the green infrastructure plans incorporating the appropriate reuse of soils for nature conservation and amenity land use. These can be considered a mitigating factor against the loss of agricultural land use.

Mitigation

- 5.8.11 Industry best practice measures for the removal and storage of topsoil will minimise structural damage and ensure that the soil's utility is maintained, so it can be redistributed for reuse around the Site. Measures for storage, handling, and reuse of soils will be included a Soil Management Plan which will form part of the CEMP.

⁹ Cranfield university (no date) National Soils Research Institute (online) Available at: <http://www.landis.org.uk/soilscapes/> (Accessed September 2021)

5.9 Traffic and Transport

Introduction

- 5.9.1 Traffic and Transport considers the effects of the Proposed Development in terms of changes to traffic flows together with other transport modes and access such as pedestrians and cyclists.
- 5.9.2 Two main documents have been prepared to support the application of the Proposed Development. These are a Transport Assessment and a Framework Travel Plan.

Baseline

- 5.9.3 The study area for the Traffic and Transport assessment has been informed through scoping discussions with Leicestershire County Council Highways and includes the following key road and junctions/links which may be affected by the Proposed Development:
- A47 'Clickers Way';
 - Astley Road;
 - Breach Lane; and
 - Mill Lane.
- 5.9.4 The locality of the Proposed Development has good connections to the existing strategic network. The A47 bounds the Site to the south and east and links Earl Shilton to Nuneaton, Leicester, Peterborough, and King's Lynn. The A5 lies to the south-west of the Site, the M69 to the east and the M1 to the north. The A5 is a long-distance route from London and crosses into Wales passing through large parts of central and southern England. The M69 routes between Coventry to the south and Leicester to the north. The M1 routes from London north to near Leeds connecting to the A1 (M) for further northward travel.
- 5.9.5 There are five PRoW within and immediately adjacent to the Site and there are footways on all major routes from the Site towards Earl Shilton town centre. The main existing cycle provisions include a shared cycle and pedestrian route which runs along the A47 bypass. Local streets are cyclist friendly and provide links to Earl Shilton town centre.
- 5.9.6 Earl Shilton is served by three local bus services and has good connectivity to major local destinations such as Leicester, Barwell, Hinckley and Nuneaton. The nearest bus stops to the Site are on located on Astley Road, approximately 350 m from the centre of the Site.
- 5.9.7 The nearest rail station to the Site is Hinckley Railway Station which is approximately 7.5 km from the Site by road. There are bus connections between Earl Shilton and Hinckley Town centre. Hinckley Railway Station provides rail connection to major destinations such as Leicester and Birmingham.
- 5.9.8 The road accident levels in the area are low, and the area does not exhibit any severe accident hot spots.

Assessment

- 5.9.9 The transport assessment has considered the potential effects of changes in road traffic movements during the operational phase on receptors, i.e. the users of this road network (pedestrians, cyclists, equestrians, and drivers) and those living close to it.

- 5.9.10 The potential effects on users of the road network and adjacent land uses as a result of construction traffic from the Proposed Development was scoped out of the assessment because the volume of total traffic generated by the operational phase of the Proposed Development would be greater than that during the construction phase and therefore the operational phase represents the likely worst-case traffic effects arising from the Proposed Development.
- 5.9.11 In total, the assessment considered 29 links in the vicinity of the Site. Nine of these links were carried forward for further assessment due to the predicted percentage change in traffic and the exceedance of thresholds for either the AM or PM traffic peaks:
- Link 8: A47 Clickers Way - Northeast of junction with Masefield Drive (PM peak only);
 - Link 9: A47 Clickers Way – Southwest of junction with Masefield Drive (PM peak only);
 - Link 22: Mill Lane near site access (AM and PM peaks);
 - Link 23: Alexander Avenue – South of Mill Lane (AM and PM peaks);
 - Link 24: Alexander Avenue – West of junction with Astley Road (AM and PM peaks);
 - Link 25: Astley Road - North of the proposed site access (AM and PM peaks);
 - Link 26: Astley Road - South of the proposed site access (AM and PM peaks);
 - Link 28: High Street – South of junction with Alexander Avenue (AM and PM peaks); and
 - Link 29: Wood Street - West of junction with Station Road (AM peak only).
- 5.9.12 The above links were assessed against the following criteria and overall had the following conclusions:
- severance: the separation of people from places and other people. The assessed links either have adequate pedestrian provision or there are improvement measures proposed that will improve connectivity.
 - driver delay: traffic delays as a result of development traffic. The assessment has indicated that junctions have sufficient capacity to accommodate increases on the network associated with the Proposed Development, or that proposed improvement schemes will provide better traffic routing.
 - pedestrian delay and amenity: the ability for people to cross roads and the effect on the relative pleasantness of a pedestrian journey. The assessed links either have adequate pedestrian provision or there are improvement measures proposed that will improve connectivity or reduce vehicular speeds (e.g. traffic calming measures).
 - fear and intimidation: the levels experienced by pedestrians and cyclists, its proximity to people or the lack of protection caused by such factors as narrow pavement widths. The assessed links either have adequate pedestrian provision or there are improvement measures proposed that will improve connectivity or reduce vehicular speeds (e.g. traffic calming measures).
 - accidents and safety: the risk of accidents occurring where development is expected to produce a change in the character of traffic. The assessed links do not exhibit severe accident hotspots and therefore do not need to be targeted with specific casualty reduction measures.
- 5.9.13 Across all links and criteria, the magnitude of change was considered to be negligible or low, with the sensitivity classified as low or medium. Therefore, operational traffic associated with the Proposed Development would result in **no significant effects**.

Mitigation

- 5.9.14 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
- A Construction Travel Management Plan will be developed to minimise traffic impacts during the construction period of the Proposed Development. The Construction Travel Management Plan would manage the daily delivery profiles and control movements and routing of HGVs through the following measures:
 - ▶ Traffic routing strategy – ensuring vehicles access the Proposed Development via the most appropriate route and avoid unnecessary conflict with sensitive areas;
 - ▶ Traffic timing strategy – programme vehicles arrivals/departures and working hours to lessen the impact on the highway network;
 - ▶ Temporary signage – to inform local road users of construction access points and the presence of HGVs;
 - ▶ Traffic Marshals – to marshal access points and Public Rights of Way crossings whilst deliveries are taking place; and
 - ▶ Temporary traffic management – provided on approaches to accesses in the form of traffic warning signs, possible reductions in speed limit signs to ensure safe passage of vehicles.
 - There will be good active travel permeability within the Proposed Development and external links to Earl Shilton via Breach Lane, Astley Road, Avenue South, Montgomery Road, and Mill Lane to enable short journeys to be undertaken on foot and by cycle;
 - A Travel Plan will be implemented to facilitate and encourage sustainable travel to reduce journeys by car and traffic generation;
 - The Proposed Development will enhance existing bus service provision and the spine road through the Site has been designed to accommodate bus services to enable travel by public transport to reduce journeys by car and traffic generation; and
 - The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.10 Water

Introduction

- 5.10.1 An assessment was carried out for the water environment including impacts upon existing water features and the potential impact on flood risk resulting from the Proposed Development. Implications for the management of foul and surface water drainage have also been considered.

Baseline

- 5.10.2 The Site contains various hydrological features including the Earl Shilton Brook and downstream Thurlaston Brook, the WwTW effluent discharge point, and the existing raised deck bridge across the Earl Shilton Brook watercourse.
- 5.10.3 Land within the Site consists of more elevated areas to the north, west, and south, with a central valley sloping towards the Earl Shilton Brook into which the majority of the Site drains. The brook flows in an artificially straightened channel with limited natural hydromorphological features. There

are no notable existing impermeable areas within the Site with the majority of the land being occupied by agricultural fields and grassland. There are very few ditches along field boundaries within the Site, although a small number of short sections of ditch are present in the south of the Site conveying flows to the Earl Shilton Brook. In addition, two small ponds are located within the Site.

- 5.10.4 According to the Environment Agency, the Site is located within Flood Zone 1 (i.e. less than a 0.1% risk of flooding from fluvial sources in a given year) and is at 'Very Low' risk (less than 0.1% Annual Exceedance Probability) of surface water flooding. The online Flood Map Tool provided by the Environment Agency indicates that there are no higher risk flood zones along the Earl Shilton Brook, however, modelling undertaken on behalf of the Applicants has highlighted a narrow corridor of Flood Zone 2 and 3 extending along the brook.
- 5.10.5 The Site is not at risk of flooding from other sources, i.e. groundwater, surface water run-off and surface water run-on. There are no artificial structures near the Site that could cause flooding of the Site (such as embankment water bodies, flood defences etc.).
- 5.10.6 The Site falls within the Water Framework Directive waterbody of the Thurlaston Brook Catchment and is classified as 'Poor' status overall, due to factors relating to poor livestock management or sewage discharge, with a goal of achieving 'Good' status by 2027.
- 5.10.7 The Environment Agency has confirmed that there are no abstraction licences for potable water within a 1 km radius of the Site. Local Authorities have additionally confirmed that there are no unlicensed abstractions (private water supplies) within a 1.5 km radius of the Site.
- 5.10.8 There is one permitted discharge in proximity to the Site, which is related to the Earl Shilton WwTW. The WwTWs is permitted to discharge into the Earl Shilton Brook.

Assessment

- 5.10.9 New development (i.e. construction works, buildings, access roads and supporting infrastructure) has the potential to affect the water environment. Potentially both water quality and quantity in adjacent water bodies could be affected by construction and operation activities.
- 1.1.16 Effects on surface water quality will be managed via the implementation of appropriate mitigation measures during construction and SuDs during operation. A suitable surface water strategy has also been prepared for the Proposed Development which demonstrates that there will be no significant impacts on water quantity. Severn Trent Water Limited have further planned for increases in regional water demand via their strategic Water Resource Management Planning (WRMP) process.
- 5.10.10 With respect to flood risk, the use of floodplain compensation and setting back of all development outside of modelled flood zones will mitigate the flood risk during construction and operation. Moreover, the implementation of a surface water management strategy will ensure that there is no significant change in flood risk to any offsite receptors.
- 5.10.11 Overall, the Proposed Development in combination with the identified mitigation measures is therefore predicted to result in **no significant effects** on the water environment.

Mitigation

- 5.10.12 Appropriate site-specific mitigation measures will be embedded in the Proposed Development, which include:
 - SuDS will be incorporated into the development following best practice measures. The SuDS would attenuate surface runoff and discharge at the greenfield rate;

- All development would occur within Flood Zone 1. The Site's SuDS would be constructed early on in the construction phase to ensure that the downstream flood risk is not increased as a result of construction;
- Development would be set back from the watercourse to minimise impacts;
- The existing watercourse would be left within a green corridor. Watercourse crossings would be constructed sympathetically and according to current Environment Agency Guidance; and
- The preparation of a CEMP and the implementation of good practice measures throughout the construction period.

5.11 Land quality

Introduction

- 5.11.1 Land Quality considers existing contaminated land and the potential for a source-pathway-pollutant linkage to be present during the construction and operation phases of the Proposed Development. If a linkage is established, then the level of risk is outlined alongside any mitigation measures that are required to measure, manage, or reduce the risk.

Baseline

- 5.11.2 Historical mapping provided within the 2012 and 2014 Landmark Envirocheck reports indicates that most of the Site has only been used for agricultural purposes.
- 5.11.3 Superficial deposits are present beneath the northern and southern portions of the Site comprising diamicton (this can be described as red or brown to grey clay and silty clay with rock fragments of mudstone and flint). Alluvium (consisting of clay, silt, sand, and gravel) is also present in a narrow band running east to west across the centre of the Site associated with the valley of the Earl Shilton Brook. This deposit is classified as a Secondary Aquifer. The site is not located in a groundwater Source Protection Zone (SPZ).
- 5.11.4 The solid geology across the whole of the Site comprises mudstone and the mudstone outcrops directly beneath the central parts of the Site where the superficial deposits are not indicated to be present.
- 5.11.5 The Site does not comprise Contaminated Land under the relevant statutory definition. Several potentially contaminative land uses were identified within 500 m of the Site boundary, including a WwTW, a cemetery and two Environment Agency and Local Planning Authority listed historical landfill sites, known as Weavers Close and Breach Farm.
- 5.11.6 The Site is in a low probability radon area, where less than 1% of homes are above the action level. No radon protective measures are necessary in the construction of new dwellings or extensions.

Assessment

- 1.1.17 The receptors that could potentially be affected by the Proposed Development comprise:
- Future on-site residents and commercial workforces;
 - Construction workers for the Proposed Development; and
 - Controlled waters.

- 5.11.7 The land use history of the Site comprises predominantly agriculture, from which there would not be expected to be contaminative sources that could present a significant risk to the identified receptors. In addition, HBBC previously agreed in 2012 that there were unlikely to be significant effects arising from the historical use of the Site and the nearby historical landfills, cemetery and WwTW. No other potentially contaminative land uses have been identified in the vicinity of the Site since these discussions were held with HBBC which would alter this conclusion.
- 5.11.8 Potential contamination effects on the water environment (i.e. the aquifers beneath the Site) during the construction of the Proposed Development can be mitigated through the adoption of best practice construction techniques to prevent ground contamination.
- 5.11.9 Therefore, it is considered that **no significant effects** on land quality are likely as a result of the Proposed Development.

Mitigation

- 5.11.10 Best practice construction techniques will be adopted to prevent ground contamination. An 'Unexpected Contamination Protocol' will be developed, to ensure any unexpected contamination which is encountered during the construction phase is dealt with in line with UK guidance, to prevent unacceptable risks to people or the environment. A CEMP will also be prepared, and good practice mitigation measures will be implemented for the Proposed Development.

6. Cumulative Effects Assessment

- 6.1.1 Two types of 'cumulative' effects were assessed: inter-project, and inter-related.
- 6.1.2 'Inter-project effects' are cumulative effects with other proposed developments in the surrounding area. Thirteen other developments were identified and included in the assessment by searching for planning applications submitted within the last three years on the relevant local authorities planning portals from the last three years.
- 6.1.3 One **significant negative inter-project effect** is predicted from the Proposed Development together with 'other developments'. This is due to cumulative loss of Grade 3a or above BMV agricultural land from the Hinckley National Rail Freight Interchange Project and the Proposed Development. No further significant negative inter-project effects have been identified. A **significant positive inter-project effect** of moderate significance is anticipated with respect to the socio-economic and health benefits from employment, investment in the local economy, housing provision, recreation, green infrastructure, open space, education, and healthcare from 'other developments' combining with the effects arising from the Proposed Development.
- 6.1.4 'Inter-related effects' were identified where individual effects of the Proposed Development combined to create a greater effect for a given receptor. The combination of the changes in all environmental topics assessed on common receptors as a result of the Proposed Development would result in minor or negligible effects that are **not significant**.

7. Summary

7.1 Introduction

- 7.1.1 Each of the environmental topics have been the subject to assessment carried out by competent experts. The assessments have considered mitigation measures to avoid, reduce or compensate for effects. The identified likely significant effects take account the implementation of such measures.

7.2 Overall summary of effects

- 7.2.1 A summary of the effects arising due to the Proposed Development is provided in **Table 7.1**.

Table 7.1 Summary of effects arising due to the Proposed Development and their significance

Receptor	Significance	Summary rationale
Air Quality	Not significant	There may be a short-term increase in dust generation from construction activities at the Proposed Development, however appropriate site-specific mitigations (Section 5.1.13) will be implemented during the construction phase, which will ensure dust effects remain not significant. Similarly, Air quality effects have been predicted to be negligible at all human and ecological receptors included in the assessment, meaning the effects are not significant. The odour assessment has identified the Waste-Water Treatment Works (WwTW) as a potential source of odour emissions; only low-sensitivity receptors such as industrial or commercial buildings (not residential) are proposed in this area of the Site.
Biodiversity	Not significant	Inclusive of embedded mitigation (Section 5.2.8) and enhancement measures, no significant effects to biodiversity would be anticipated due to the Proposed Development. Overall, impacts are considered to be positive at the local level and will ensure no net loss in biodiversity terms.
Climate change	Not significant	An increase in Greenhouse Gas emissions is anticipated during the construction and operation of the Proposed Development, when compared to the baseline land use, as arable farmland. However, this anticipated increase is mitigated by the measures defined in Section 5.3.5. Additionally, when compared to the UK Carbon Budgets, which are guiding the National transition to Carbon Net-Zero, the Proposed Development is small and will not materially affect the UK's ability to achieve Net-Zero and as such, is not significant.
Historic Environment	Not significant	Following the implementation of mitigation measures (see Section 5.4.17), no effects caused by the construction or operation of the Proposed Development on present archaeological remains, Historic Landscape Character within the Site or the setting of the Church of St Simon and St Jude, are judged to be significant.
Landscape and Visual	Not significant	The Site as a whole is not visible from any single vantage point due to a combination of scale, the presence of the WWTW and intervening topography and vegetation within the Site and its immediate surroundings. The landscape and visual assessments have concluded there would be no significant landscape effects as a consequence of the Proposed Development. Whilst some private residential receptors may experience visual impacts during winter months, these will be localised and mitigated as per Section 5.5.13 and are therefore not judged to be significant.

Receptor	Significance	Summary rationale
Noise and Vibration	Not significant, except at one receptor	In general, the predicted effects from the Proposed Development are negligible, and are considered not significant. The exception to this is St Simon and St Jude Primary School, which is predicted to experience a significant adverse effect due to additional traffic using the junction of Astley Road and Alexander Avenue to access the Site. Mitigation measures outlined in Section 5.6.7 address this effect.
Socio-economics and health	Significant	Overall, a major significant beneficial effect is anticipated in relation to the increase in housing, with a moderate (potentially significant) beneficial effect on recreational spaces, employment and retail. Whilst scoped out of the assessment, financial and land contributions will be made to support the capacity for education and health.
Agriculture and soils	Significant	The permanent loss of 43.31 ha of Best and Most Versatile (BMV) agricultural land results in a significant effect, with the temporary loss of soil resources and changes to soil structure also resulting in a significant effect.
Traffic and transport	Not significant	Increases in traffic during the operation of the Proposed Development were assessed to be greater than those during its construction. The inclusion of five vehicular access points in the Proposed Development, coupled with the mitigation measures outlined in Section 5.9.13 result in no significant effects in terms of severance, driver delay, pedestrian delay and amenity, fear and intimidation, and accidents and safety.
Water	Not significant	The mitigation measures embedded (see Section 5.10.12) in the design of the Proposed Development, in combination with the identified mitigation measures is predicted to result in no significant effects on the Water Environment.
Land quality	Not significant	As the site history sole comprises of agricultural land use, from which there would not be expected to be contaminative sources that could present a significant risk to identified receptors. The adoption of best practice construction techniques will prevent ground contamination, coupled with the development of an 'Unexpected Contamination Protocol'. It is therefore considered that no significant effects on land quality are likely as a result of the Proposed Development.
Cumulative effects	Inter-project effects = Significant Inter-related effects = Not significant.	The cumulative loss of Grade 3a or above BMV agricultural land from the Hinckley National Rail Freight Interchange Project and the Proposed Development results in a significant (negative) inter-projects effect. The combined socio-economic and health benefits arising from improved employment, investment in the local economy, housing, recreation, green infrastructure, open space, education, and healthcare from 'other developments', combining with the effects arising from the Proposed Development, result in a significant (positive) inter-projects effect. Whilst 'inter-related' effects were identified, these were found to result in minor effects and are therefore deemed not significant.

8. Further Information

- 8.1.1 The Environmental Statement (ES) has been submitted to Hinckley and Bosworth Borough Council (HBBC) who will make a decision on the application in consultation with various stakeholders. These will include government bodies, agencies, and the general public.
- 8.1.2 Feedback from the consultees will be taken into consideration by HBBC to inform their decision on the outline planning application.
- 8.1.3 This ES is available online via the council's website at the following link: https://www.hinckley-bosworth.gov.uk/info/200249/view_planning_applications_and_decisions/719/view_and_comment_on_a_planning_application.
- 8.1.4 Paper copies can be made available, for a fee, on request, from the Applicants (via their Agents) at haveyoursay@woodplc.com

wood.