



Avant Homes West Midlands

Land West of Westfield Avenue, Earl Shilton

ECOLOGICAL APPRAISAL

November 2024

FPCR Environment and Design Ltd

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1.0 EXECUTIVE SUMMARY

- 1.1 This assessment has been undertaken to identify potential ecological constraints associated with the proposed residential development at Westfield Avenue, Earl Shilton, Leicestershire. To meet the requirements of the brief, a desk study and Extended Phase 1 Habitat Survey were undertaken.
- 1.2 No statutory designated sites of international conservation importance were identified within 5km of the Site boundary. No statutory designated sites of national conservation importance were identified within 2km of the Site boundary. There were two sites of local conservation value within 1km of the Site boundary. Due to the nature of the designations and distance from the development Site, construction activities are unlikely to cause an impact with the incorporation of suitable precautionary measures to avoid potential indirect impacts.
- 1.3 Habitats of greatest value included the on-Site mature trees. The remaining habitats consisted of poor semi-improved grassland, dense/continuous scrub, scattered scrub, tall ruderal and bare ground, considered to be of low ecological value and their loss does not pose a constraint to development.
- 1.4 No evidence or incidental sightings of badger were recorded during the survey; therefore, this species does not pose a constraint to the development. However, as it is possible that they are active in the area, precautionary general mitigation with regards to badger is recommended prior to, and during construction.
- 1.5 One tree was classified as having 'moderate' potential to support roosting bats. Should this tree be removed as part of the development proposals, it is recommended that it is subject to additional aerial or nocturnal assessment prior to its removal. No buildings with bat potential were identified within the Site.
- 1.6 No waterbodies were present within the Site, although six ponds were present within 250m of the Site boundary. Two of these ponds confirmed the presence of GCN. These ponds are separated from the Site by residential development and roads, therefore it is unlikely that GCN would be utilising the predominantly poor terrestrial habitat within the Site; no further surveys are required and precautionary working method statement is advised.
- 1.7 Sensitive design and masterplanning from the outset should help enable the scheme to avoid, reduce and, where necessary, mitigate/compensate likely effects. The green infrastructure should be designed to incorporate existing habitats of value, ensure habitat connectivity through and outside the Site, with a variety of semi-natural habitats comprising native species, managed to promote their ecological value. Alongside this, practical measures for fauna, including the installation of bat and bird boxes and log piles should be undertaken. By maximising the opportunities available for biodiversity within the green infrastructure the scheme's design will enable the provision of a 10 % net gain in biodiversity in line with local and national policy.

2.0 INTRODUCTION

- 2.1 The following report has been prepared by FPCR Environment & Design Ltd. on behalf of Avant Homes, West Midlands. It provides an Ecological Appraisal of a Site at Westfield Avenue, Earl Shilton, Leicestershire, following an extended Phase 1 habitat survey including initial observations of any suitable habitats for, or evidence of, protected species.
- 2.2 The following does not provide a comprehensive analysis of results or detailed mitigation recommendations. Instead, it aims to provide baseline ecological information, with recommendations for likely further survey work and mitigation measures required to ensure that the development complies with relevant legislation and highlights the opportunities for ecological enhancements.

Site Location and Context

- 2.3 The Site is Located West of Westfield Avenue, Earl Shilton, Leicestershire (Central Grid Ref: SP 46004 97838) Surrounding land-use is dominated by residential development bordered by hedgerows and scattered trees.
- 2.4 The Site, approximately 0.58 ha in size, comprises of bare ground, with areas of poor semi-improved grassland, tall ruderal and scrub.

Development Proposals

- 2.5 The Site is being proposed for residential development entailing the erection of 18 dwellings, new vehicular and pedestrian access of Westfield Avenue, and associated green infrastructure.

Scope of Ecological Appraisal

- 2.6 This Preliminary Ecological Appraisal describes the potential ecological interest within and around the Site, which has been identified through initial desk and field-based investigations. It then considers the potential ecological impacts and opportunities for development of the Site in the context of relevant legislation and planning policy. The report also considers the potential further survey and/or mitigation requirements if protected species are present within the Site.

3.0 METHODOLOGY

Desk Study

- 3.1 To support a field survey and compile existing baseline information relevant to the Site, ecological information comprising records of protected or notable species and sites designated for nature conservation interest was sought from the Leicestershire and Rutland Environmental Records Centre (LRERC)
- 3.2 Online sources of ecological data were also sought from the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.defra.gov.uk).
- 3.3 The search area of interest varied depending upon the likely significance and zone of influence as follows:

- a minimum of a 5km radius around the Site was searched for sites with an international ecological statutory designation, i.e., Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites;
- a minimum of a 2km radius for sites of national/regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR);
- up to a 1km radius around the Site for sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS); and
- a 1km search area for records of notable / protected species (including Species of Principal Importance under S41 of the Natural Environment and Rural Communities (NERC) Act 2006 and local biodiversity action plan species).

3.4 Further inspection, using colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk), was also undertaken to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

Field survey

Flora

3.5 The Extended Phase 1 Habitat Survey was undertaken on the 22nd of September 2023 using the standard methodology (JNCC, 2010¹), to identify specific habitats and features of ecological interest. Habitats were marked on a base plan and where appropriate, target notes were made. An inspection of the Site for the presence of any invasive weed species was also carried out. Features such as trees were considered with regard to their ecological value and potential to provide suitable habitats for protected species.

Fauna

3.6 Throughout the Extended Phase 1 survey, consideration was given to the actual or potential presence of protected species, such as, although not limited to those protected under the Wildlife and Countryside Act 1981 (as amended)², the Protection of Badgers Act 1992³ and the Conservation of Habitats and Species Regulations 2017 (as amended)⁴. Consideration was also given to the existence and use of the site by other notable fauna such as Species of Principal Importance NERC (2006)⁵, or Red Data Book (RDB) species.

¹ Joint Nature Conservation Committee 2010 Handbook for Phase 1 Habitat Survey: a technique for environmental audit. JNCC, Peterborough.

² The Wildlife and Countryside Act 1981 (as amended). [Online]. London:HMSO Available at <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed 02/12/22]

³ The Protection of Badgers Act 1992 (as amended). [Online]. London:HMSO Available at <http://www.legislation.gov.uk/ukpga/1992/51/contents> [Accessed 02/12/22].

⁴ The Conservation of Habitats and Species Regulations 2010 – Statutory Instrument 2010 No.490. [Online]. London: HMSO. Available at: <http://www.legislation.gov.uk/ksi/2010/490/introduction/made> [Accessed 02/12/22].

⁵ The Natural Environment and Rural Communities Act 2006. [Online]. London: HMSO Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed 02/12/22]

Bats

Assessment of Trees

3.7 Where trees with likely bat roosting features were incidentally encountered, tree assessments were undertaken from ground level. These surveys were undertaken on 22nd September 2023 by an experienced ecologist from FPCR. During the survey Potential Roosting Features (PRF) for bats such as the following were sought (Based on P16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015⁶):

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar;
- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems);
- Woodpecker holes;
- Cracks/splits in stems or branches (horizontal and vertical);
- Partially detached, loose or bark plates;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt rots;
- Compression of forks with occluded bark, forming potential cavities;
- Crossing stems or branches with suitable roosting space between;
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk);
- Bat or bird boxes.

3.8 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value.

3.9 Trees were classified into general bat roost potential groups based upon the presence of these features. Table 1 (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 4.1 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines (J., Collins (Bat Conservation Trust), 2016⁷) which were the most recent guidelines at the time of survey.

3.10 Although the British Standard 8596:2015 document groups trees with moderate and high potential, these have been separated below (as per Table 4.1 in The Bat Conservation Trust Guidelines) to allow more specific survey criteria to be applied.

Table 1: Classification and Survey Requirements for Bats in Trees

⁶ BSI Standards Publication BS 8596:2015 Surveying for Bats in Trees and Woodland October 2015

⁷ Bat Conservation Trust, 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd Edition)

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey Work / Actions
Confirmed Roost	Evidence of roosting bats in the form of live/dead bats, droppings, urine staining, mammalian fur oil staining, etc.	<p>A Natural England derogation licence application will be required if the tree or roost site is affected by the development or proposed arboricultural works. This will require a combination of aerial assessment by roped access bat workers (where possible, health and safety constraints allowing) and nocturnal survey during appropriate periods (e.g. nocturnal survey - May to August) to inform on the licence.</p> <p>Works to tree undertaken under supervision in accordance with the approved good practice method statement provided within the licence.</p> <p>However, where confirmed roost site(s) are not affected by works, work under a precautionary good practice method statement may be possible.</p>
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	<p>Aerial assessment by roped access bat workers (if appropriate) and/or nocturnal survey during appropriate period (May to August).</p> <p>Following additional assessments, tree may be upgraded or downgraded based on findings.</p> <p>If roost sites are confirmed and the tree or roost is to be affected by proposals a licence from Natural England will be required.</p> <p>After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate.</p>
Moderate Potential	A tree with Potential Roosting Features which could support one or more potential roost sites due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status).	<p>A combination of aerial assessment by roped access bat workers and/or nocturnal survey during appropriate period (May to August).</p> <p>Following additional assessments, tree may be upgraded or downgraded based on findings.</p> <p>After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate.</p>

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey Work / Actions
	Examples include (but are not limited to); woodpecker holes, rot cavities, branch socket cavities, etc.	If a roost site/s is confirmed a licence from Natural England will be required.
Low Potential	<p>A tree of sufficient size and age to contain Potential Roosting Features but with none seen from ground or features seen having only very limited potential.</p> <p>Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.</p>	No further survey required but a precautionary working method statement may be appropriate.
Negligible/No potential	Negligible/no habitat features likely to be used by roosting bats	None.

* The Conservation of Habitats & Species Regulations 2017 (as amended) affords protection to “breeding sites” and “resting places” of bats. The EU Commission’s Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC, February 2007 states that these are places “where there is a reasonably high probability that the species concerned will return”.

Other Species

3.11 Any sightings, evidence of or suitable habitats for other protected fauna, local BAP or otherwise notable species were recorded during the Site visit.

Limitations

3.12 This assessment aims to provide baseline ecological data for the Site and as such presents an overview of the habitats and features present. Due to the transient and complex nature of ecosystems, no investigation can provide a complete representation or prediction of the natural environment present. Every effort has been made however to ensure an accurate description of the Site is presented, following best practice guidance, experience, and professional judgement.

3.13 Data provided by third party sources collated during the desktop study is generally made up from a wide range of sources including (but not limited to) those submitted by ecological consultancies, wildlife conservation organisations and volunteers. As such, this data is typically focused on areas of known nature conservation, is reliant upon formal surveys having been undertaken within an area or the presence of an expert within the locality (particularly for invertebrate records). As such this data can never be fully relied upon as a complete ecological dataset for any given area, rather it is used as a guide to identify the likely presence of notable ecological features and can never be relied upon for likely absence.

3.14 Given the transient nature of natural processes, the findings of this report should not be relied upon for more than 18 months from completion of surveys.

4.0 RESULTS

Desk Study

4.1 The locations of designated sites and faunal records discussed in the following section are illustrated in Figure 1 – Designated Sites & Protected/Notable Species Plan.

Statutory Designations

4.2 No internationally designated sites of nature conservation interest were identified within the Site boundary or within a 5km radius of the Site.

4.3 No nationally designated sites of nature conservation interest were identified within the Site boundary or within a 2km radius of the Site.

Non-statutory Designations

4.4 Consultation with the Leicestershire and Rutland Environmental Records Centre (LRERC) identified two sites of local conservation importance within 1km of the Site. No sites were recorded within the Site boundary, with the nearest site located 300m north of the Site boundary. These are detailed in Table 2 below.

Table 2: Non-statutory Designated Sites within 1km of the Site

Site	Designation	Location (Distance and Orientation from Site)	Summary Description
Earl Shilton, Wentworth Avenue Oak	LWS potential	970m south	This tree was identified as having a cLWS as part of a walkover survey in 2007 compete by LRERC. Meeting the LWS criteria as it measures at 3.85m girth and 1.3m above the roots.
Thurlaston Brook Hedgerow	LWS potential	300m North	This hedgerow was identified as a species-rich hedgerow, having seven native woody species.

Protected/Notable Species

4.5 Table 3 details records of protected/notable species returned by the LRERC for within 1km of the application site.

Table 3: Records of Protected/Notable Species within 1km of the Site from 2000 onwards

Species	Conservation Status	Distance from Site to Nearest Record	Most Recent record
Mammals			
Badger <i>Meles meles</i>	PBA, WCA Sch5,	117m East	2022
Brown hare <i>Lepus europaeus</i>	NERC S41	715m North-east	2020

Species	Conservation Status	Distance from Site to Nearest Record	Most Recent record
<i>European Hedgehog</i> <i>Erinaceus europaeus</i>	BAP, WCA Sch6, NERC S41	240m South-West	2022
Common pipistrelle <i>Pipistrellus pipistrellus</i>	WCA Sch5, CHSR, LBAP	360m East	2021
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	LBAP, WCA Sch5, NERC S41, CHSR	760m West	2020
Noctule bat <i>Nyctalus noctula</i>	LBAP, WCA Sch5, NERC S41, CHSR	370m East	2021
Brown long-eared bat <i>Plecotus auritus</i>	LBAP, WCA Sch5, NERC S41, CHSR	370m East	2020
Unidentified Bat Species <i>Chiroptera sp.</i>	LBAP, WCA Sch5, CHSR	400m East	2019
Amphibians and Reptiles			
Great crested newt <i>Triturus cristatus</i>	LBAP, WCA Sch5, NERC S41, CHSR	50m North	2020
Common Toad <i>Bufo bufo</i>	WCA Sch5, NERC S41	800m South	2010
Smooth Newt <i>Lissotriton vulgaris</i>	WCA Sch5	2m East	2020
Common frog <i>Rana temporaria</i>	WCA Sch5	125m East	2019
Grass Snake <i>Natrix helvetica</i>	WCA Sch5, NERC S41	720m East	2020
Birds			
Little Ringed Plover <i>Charadrius dubius</i>	Bern2, Bonn2, WCA1.1	640m South-East	2021
Peregrine <i>Falco peregrinus</i>	BDir1, Bern2, Bonn2, CITES-A, WCA1.1	640m South-East	2021
Hobby <i>Falco subbuteo</i>	Bern2, Bonn2, CITES-A, WCA1.1	640m South-East	2021
Barn Owl <i>Tyto alba</i>	Bern2, CITES-A, WCA11, WCA9	640m South-East	2021

Species	Conservation Status	Distance from Site to Nearest Record	Most Recent record
Red Kite <i>Milvus milvus</i>	BDir1, Bonn2, CITES-A, WCA1.1, WCA9	640m South-East	2021
Whimbrel <i>Numenius phaeopus</i>	Bonn2, UKBR red list, WCA1.1	640m South- East	2021
Greenshank <i>Tringa nebularia</i>	BDir2.2, Bonn2, UKBA amber list, WCA1.1	640m East	2021
Green Sandpiper <i>Tringa ochropus</i>	Bern2, Bonn2, UKBA amber list , WCA1.1	640m South-East	2021
Redwing <i>Turdus iliacus</i>	UKBA amber list, WCA1.1	640m South- East	2021
Fieldfare <i>Turdus pilaris</i>	UKBR red list, WCA1.1	560m Sout-East	2020

1 Listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)

2 Conservation of Habitats & Species Regulations 2017 (as amended)

3 Species of Principal Importance Listed on Section 41 of the Natural Environment and Rural Communities Act 2006

4 Birds of Conservation Concern Amber listed species

5 Birds of Conservation red listed species

6 Listed on schedule 1 of the Wildlife and Countryside Act 1981 (as amended)

7 Local Biodiversity Action Plan

8 Listed on Schedule 8 of the Wildlife and Countryside Act 1981(as amended)

9 Bern Convention of the Conservation of European Wildlife and Natural Habits Appendix 2

10 Bonn Convention of the Conservation of Migratory Species of wild Animals , Appendix 2

11 Protection of Badger Act 1992

12 UK Biodiversity Action Plan Priority Species

13 EU Birds directive Annex 1

14 Convention on International Trade in Endangered Species, Annex A- threatened with extinction.

15 Listed on Schedule 9 of The Wildlife and Countryside Act 1981 (as amended)

16 Listed on Schedule 1 od the Wildlife and Countryside Act 1981 (as amended)

Survey Results

Habitats/Flora

4.6 A description of each habitat type is described below with the location of each habitat type illustrated in Figure 2: Phase 1 Habitat Plan. Site photographs are included in Appendix A and botanical species lists are included in Appendix B.

Poor -Semi improved grassland

4.7 A small area of species-poor semi-improved grass bordered an area of bare ground. The grassland was not subject to any management and was dominated by Yorkshire fog *Holcus lanatus* with perennial rye-grass *Lolium perenne* and common bent *Agrostis capillaris* also present. Herb diversity was limited with species including common nettle *Urtica dioica*, broadleaved dock *Rumex obtusifolius* and rosebay willowherb recorded amongst the sward. (Appendix A – Photograph 1)

Trees

4.8 Three mature trees (T1-T3) were present on-Site, Tree T1 comprised an ash Tree *Fraxinus excelsior* which was situated in the south-eastern corner of the site. Trees T2 and T3, comprising English oak trees *Quercus robur*, were associated with the eastern boundary in an area of amenity grassland.

Scrub – Dense/Continuous

4.9 Localised patches of dense/continuous bramble *Rubus fruticosus* agg scrub were present in association with semi-improved grassland, around the boundary of the Site.

Tall ruderal

4.10 An area of tall ruderal vegetation was present throughout the north-eastern corner of the Site (Appendix A- Photograph 3), which primarily consisted of common nettle, creeping thistle *Cirsium arvense* and broad-leaved dock.

Bare ground

4.11 A large area of bare ground was present along the central section of the Site. Scattered vegetation included dandelion *Taraxacum officinale*, spear thistle, creeping thistle and prickly sow thistle *Sonchus asper* (Appendix A- Photograph 4-6).

Target Notes

4.12 Target notes TN1 and TN2 denote areas of buildings supplies and rubble piles (Appendix A Photograph 7-8).

Fauna

Badger

4.13 During the walkover survey, no incidental sightings or evidence of badger *Meles meles* (e.g. setts, latrines, prints or hairs) were recorded within the Site boundary or within 30m radius (where accessible). The on-site habitats, including poor semi-improved grassland and bramble, provided

potential foraging habitats, movement corridors and some opportunity for sett creation for this species. Desk study indicates the nearest badgers to be present approximately 117m east of the Site, identified as a possible main sett with other subsidiary setts throughout the woodland in this location.

Bats

- 4.14 The Site for the most part comprised poor semi-improved grassland and bare ground with little floristic diversity and unlikely to support a rich source of invertebrates for foraging bats. Similarly, linear features within the site that could be used as dispersal corridors were of limited extent and poor structure.
- 4.15 One tree Oak *Quercus robur* (T3) was identified as supporting two knotholes at 6m and was considered to have 'moderate' potential. The remaining mature trees on Site, although of suitable size and age to support bat roosting features, were classed as having 'negligible' bat roosting potential.
- 4.16 No additional features with bat roosting potential such as buildings were noted within the Site.

Birds

- 4.17 During the walkover survey, a range of common and widespread species were recorded on-Site which included generalist species such as great tit *Parus major*, blue tit *Cyanistes caeruleus*, robin *Erithacus rubecula* and blackbird *Turdus merula*, in addition to urban-edge species including starling *Sturnus vulgaris*. The habitats on-Site provided some nesting and foraging opportunities for a range of species, including those incidentally noted on Site within the trees and dense/continuous scrub.

Great Crested Newts

- 4.18 Suitable terrestrial habitat for great crested newts (GCN) *Triturus cristatus* was present on-site in the form of bramble scrub, tall ruderal vegetation and the root systems of trees. The other habitats present on-site, including the areas of bare ground and ephemeral/short perennial vegetation were considered to represent poor terrestrial habitat for GCN. Connectivity to habitats in the wider area was also limited to the north east and south by the surrounding road network and houses which were considered to act as, at least, a partial barrier to the movement of this species into the Site from any ponds in the surrounding area.

- 4.19 No waterbodies were recorded within the Site boundary.
- 4.20 Six ponds (P1-6) were present within 250m of the Site boundary, the closest of which was located 90m to the east of the Site, which could provide potential breeding habitat for GCN. Ponds P1-4 were surveyed in 2023 and confirmed the presence of GCN whilst Surveys were not undertaken on ponds P5-6. Trapping was also undertaken previously on the site which returned no GCN captures.

Reptiles

- 4.21 No evidence or incidental sightings of reptiles were recorded during the survey. The on-Site habitats were considered to provide some, albeit limited, suitability for reptiles, in the form of scrub, tall ruderal vegetation and grassland, along with piles of rubble.

Other Species

4.22 No evidence or incidental sightings of other notable species were recorded during the survey. The areas of scrub and grassland were however, considered to provide some suitable foraging and refuge habitat for hedgehogs, a S41 list Species of Principal Importance (SPI).

5.0 DISCUSSION AND RECOMMENDATIONS

Proposals

5.1 The Site is being proposed for residential development of 18 dwellings, new vehicular and pedestrian access off Westfield Avenue, and associated green infrastructure.

Designated Sites

5.2 No sites with either national or international level designations were identified within 2km or 5km respectively.

5.3 Non-statutory designated sites do not receive statutory protection. They do however receive policy protection (as “Local Sites”), as reflected in the National Planning Policy Framework (NPPF). The NPPF suggests that Local Sites can have a fundamental role to play in meeting overall national biodiversity targets and that appropriate weight should be attached to designated sites when making planning decisions.

5.4 There were no non-statutory designated sites present within the Site boundary, although two pLWS) were identified within 1km of the Site, with the closest site Thurlaston Brook Hedgerow, located 300m north separated from the Site by West field Avenue. All three sites are considered to be sufficiently distant from the proposed Site, and unlikely to be impacted by proposals.

Habitats

5.5 The degree to which habitats receive consideration within the planning system relies on a number of mechanisms, including:

- Inclusion within specific policy (e.g. veteran trees, ancient woodland and linear habitats in NPPF, or non-statutory site designation),
- Identification as a Habitat of Principal Importance for biodiversity under Natural Environment and Rural Communities Act (NERC) 2006 and identification as a Priority Habitat within the local Biodiversity Action Plan (BAP).

5.6 Under the NPPF development should seek to contribute a net gain in biodiversity where possible.

5.7 Habitats of greater value on Site include the mature and immature trees which should be retained within proposals where feasible. Mature trees provide continuity of habitat and can provide a habitat to a range wildlife. Any tree loss should be mitigated for by suitable replacement planting in a suitable location within the green infrastructure.

5.8 All retained trees will be protected by appropriate fencing based on their calculated Root Protection Areas (RPA) and protected from damage and disturbance during construction through the implementation of best practice standards and recommended guidance and as outlined in any

Construction Environmental Management Plan (CEMP) or similar for the lifetime of the construction phase.

5.9 The remaining habitats (poor semi-improved grassland, tall ruderal, dense scrub and bare ground) comprised species common and typical of those habitats and were of little intrinsic nature conservation value and are not considered to represent a constraint to development of the Site. It is not anticipated that the removal of these habitats would significantly impact local wildlife populations as these are of low ecological value and limited in extent.

Biodiversity Net Gain

5.10 Biodiversity Net Gain (BNG) is an approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected in such a way it is hoped that the current loss of biodiversity through development will be halted and ecological networks can be restored.

5.11 This approach is advocated in the revised NPPF, which states at paragraph 186 that:

“When determining planning applications, local planning authorities should apply the following principles:

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate”.

5.12 In order to demonstrate measurable BNG, DEFRA has developed a metric in order to aid its calculation in a transparent and prescriptive way. The most recent iteration, the Biodiversity Metric 4.0 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change.

5.13 In order to ensure that the proposed Site can deliver BNG, the development design will seek to avoid habitats of greatest value (such as the mature trees) where feasible, using these as a framework for the green infrastructure and creating new habitats alongside these.

5.14 A preliminary BNG assessment undertaken at an early stage in the design process and in close collaboration with urban planners and landscape architects, will formulate an early understanding of the location, extent and type of green infrastructure which maximises on-Site opportunities for biodiversity gains within the red line and where necessary, allows consideration of any additional approaches needed, to ensure that the development of this Site enables the delivery of an overall net gain in biodiversity locally, within the context of the recently approved Environment Act and which is in line with local and national policy. Early iterations of the development masterplan and preliminary BNG assessments, suggest that this scheme will deliver a loss of 0.57 habitat units which equates to a -15.50% loss and a gain of 0.67 hedgerow units. On the basis of habitats proposed, it is likely that BNG will be difficult to achieve where a reasonable quantum is to be pursued and other alternatives, such as securing off-site compensation, may need to be considered. Full details regarding the BNG assessment for the Site can be found in the Biodiversity Net Gain Technical Note⁸

⁸ Biodiversity Net Gain Technical Note- Earl Shilton , Leicestershire , FPCR 2023

Fauna

Badger (Confidential)

5.15 Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

- Wilfully kill, injure, take possess or cruelly ill-treat a badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

5.16 Habitats within the Site boundary provided suitable foraging and movement habitats for badger, which are known to be present in the wider area. During the Extended Phase 1 Survey, no setts or other evidence was recorded. The presence of this species does not currently pose a constraint to the proposals. However, it is recommended that the below precautionary measures are implemented to avoid possible harm to individual badgers during construction;

- A pre-commencement badger survey should be undertaken prior to site clearance to ascertain whether any badger setts have been established in the interim.
- Any pipes greater than 250mm in diameter will be capped if they are left open overnight, thereby preventing badgers from becoming trapped;
- Any pits or trenches will be similarly covered overnight, or left with a suitable means of escape, e.g. wooden plank;

Bats

5.17 Bats and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended). In summary this makes it an offence to damage destroy or obstruct any place used by bats for breeding and shelter, disturb a bat, or kill, injure or take a bat. Seven bat species (not including common pipistrelle) are listed as Species of Principal Importance under the provisions of the NERC Act 2006.

5.18 One tree (T3) with moderate potential for roosting bats was recorded in the Site. Current proposals indicate that the tree and its connectivity to the wider landscape will be retained, therefore no further works/mitigation is recommended.

5.19 There are no existing records of bats on-Site, but there are numerous records of bats within 1km of the Site boundary comprising common and widespread species such as common pipistrelle, pipistrelle species, soprano pipistrelle, noctule, serotine, brown long-eared and unidentified bat species.

5.20 The majority of on-site habitats (poor semi-improved grassland, tall ruderal and ephemeral/short perennial vegetation and bare ground) are of limited value to bats and their loss would not significantly affect any local populations.

5.21 Sensitive design of the Site's lighting scheme is recommended to maintain new and retained features, such as hedgerows and trees, as dark corridors for both foraging and commuting, and minimise light spill onto potential habitats; ideally to levels less than 1 lux, in accordance with current best practice for lighting and bats.

5.22 This could be achieved by a combination of the following steps:

- The direct lighting of existing trees and dense scrub, or proposed landscape planting, areas of open standing water should be avoided;
- Road and flood lighting should use low pressure sodium or high-pressure sodium instead of mercury or metal halide lamps;
- Lighting should be directional and light spillage avoided;
- Lighting columns would in general be as short as possible, although in some locations taller columns would allow reduced horizontal spill;
- Lighting levels should be as low as guidelines permit and only used where required for public safety.

5.23 To enhance the value of the Site further, it is recommended that a range of bat boxes are placed on retained trees and proposed buildings, at least 3m from the ground and located in open positions where flight lines to the entrance of the box are not congested by vegetation. The bat boxes should be a variety of designs to encourage different environmental conditions and to be suitable for a range of species.

Birds

5.24 The Wildlife and Countryside Act 1981 (as amended) is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions to recklessly or intentionally:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while in use or being built;
- Take or destroy the egg of any wild bird.

5.25 Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are specially protected at all times.

5.26 The Site provides a range of habitats suitable for nesting and ground nesting birds, including mature and immature trees and areas of dense scrub. However, given the very limited extent of habitats that would be affected the proposals are unlikely to lead to any significant effect on any local breeding or wintering bird populations.

5.27 Nevertheless, to avoid disturbance to breeding birds and to ensure legal compliance, suitable nesting habitat will be removed outside the bird-breeding season, which runs from March to September, inclusive. If this is not possible, vegetation will be checked prior to removal by an experienced ecologist. If active nests are found, the area will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided prior to undertaking the clearance. This is a statutory requirement due to the protection of all nesting birds and their nests under the WCA 1981 (as amended). A suitably qualified ecologist will supervise this.

5.28 To enhance the value of the Site it is recommended that bird boxes are placed on retained trees and proposed buildings. Bird boxes should be placed so that they face between north and east to avoid strong sunlight and the wettest winds and should be mounted so that there is a clear path to the entrance. The nest boxes can be mounted at any time during the year, although they should ideally be mounted during autumn when many species are looking for a suitable place to roost or

feed and should be tilted slightly forward so that any driving rain will hit the roof and not flood the box.

Great Crested Newts

5.29 GCN are afforded full legal protection under the Conservation of Habitats and Species Regulations 2017 (as amended)⁹ and the Wildlife & Countryside Act 1981 (as amended)¹⁰.

5.30 In summary this makes it an offence to damage, destroy or obstruct any place used by GCN for breeding and shelter, disturb a GCN, or kill, injure or take a GCN.

No waterbodies were present within the Site boundary, although four were present in relatively close proximity to it. Consultation data included a number of records of GCN within the general area. This is supported by evidence collected by FPCR in support of a licence, in place since 2018, to allow the wider development to proceed (Licence ref: 2018-36734-EPS-MIT-1). This included the trapping and translocation of GCN from the wider site to a reserve area to the east. This area is currently fenced by exclusion fencing to prevent GCN access into the development site which remains under construction. This fencing will prevent GCN access into the current site for the foreseeable future.

5.31 Furthermore published literature by Franklin, 1993; Oldham and Nicholson 1986; Jehle (2000) determined a terrestrial zone of 63m, within which 95% of summer refuges were located. In addition to this Jehle and Arntzen, (2000)¹¹ discovered that following the breeding season 64% of newts were recorded within 20m of the pond edge.

5.32 This is supported by research conducted by English Nature (now Natural England) in 2004 (English Nature Research Report Number 576) to assess the value of different habitats for GCN states in the non-technical summary that

'By far the most captures were recorded within 50 m of ponds and few animals were captured at distances greater than 100 m.'

It also goes on to say:

'Captures on fences (and by other methods) at distances between 100 m and 200 – 250 m from breeding ponds tended to be so low as to raise serious doubts about the efficacy of this as an approach, although a small number of projects did report captures on significant linear features at distances approximately 150 – 200 m from ponds.'

5.33 The risk to GCN during works is therefore unlikely even in the event that exclusion fencing is removed.

5.34 No evidence or incidental sightings of reptiles were recorded during the survey. Consultation results returned records of grass snake within 1km of the Site boundary. The site is of limited extent

⁹ The Conservation of Habitats and Species Regulations 2017 – Statutory Instrument 2017 No.1012. [Online]. London: HMSO. Available at: http://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksiem_20171012_en.pdf [Accessed 23/01/2018].

¹⁰ The Wildlife and Countryside Act 1981 (as amended). [Online]. London: HMSO Available at <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed 02/12/2014]

¹¹ Jehle, R. & Arntzen, J. W. Post-breeding migrations of newts with contrasting ecological requirements. *Journal of Zoology, London*, 251, pp 297-306

with limited suitable habitat present. As a result, it is not considered likely to support or be of significant value for reptiles.

Other Species

- 5.35 Areas of dense scrub habitats provided suitable habitats for hedgehogs. It is recommended that all suitable hedgehog habitats are searched by a qualified ecologist prior to its removal to ensure that hedgehog are not harmed as a result of the proposals. Site enhancements and creation of new habitats in the wider site will ensure that a habitat mosaic suitable for hedgehogs around the boundaries is provided on completion of works.
- 5.36 To maintain habitat connectivity within the development, 'hedgehog highways' could be created. These comprise holes and/or channels measuring 13cm by 13cm, which can be incorporated into garden fences/field boundaries. These are sufficient for hedgehogs to pass through but are too small for most pets.

Enhancements

- 5.37 New native tree and shrub planting and wildflower/species-rich grassland areas should be incorporated into the green infrastructure proposals, including alongside retained habitats to further enhance their value.
- 5.38 Preference should be given within the planting scheme to the use of locally native woody species, with an emphasis on species bearing nectar, berries, fruit and nuts, as these enhance the foraging opportunities for local wild fauna including birds and invertebrates. Suitable small tree species for inclusion in hedgerows include field maple *Acer campestre*, silver birch *Betula pendula*, wild cherry *Prunus avium*, bird cherry *P. padus*, holly *Ilex aquifolua*, crab apple *Malus sylvestris* and rowan *Sorbus aucuparia*. Other shrub species suitable for inclusion within the soft landscaping design around boundaries include hawthorn, hazel *Corylus avellana*, blackthorn, dog-rose *Rosa canina*, honeysuckle *Lonicera periclymenum*, guelder-rose *Viburnum opulus* and wild privet *Ligustrum vulgare*. Planting within built areas may include semi-ornamental and ornamental specimens, with consideration given to those which provide value through their nectar and fruiting bodies.