

Ecological Assessment



**Tyler
Grange**

**Land West of Thaxted Road,
Saffron Walden
5th December 2022**

TG Report No. 14764_R03a_HDBJ_CW

Report No:	Date	Revision	Author	Checked	Approved
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Summary

- S.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Kier Ventures Ltd. It sets out the findings of an ecological assessment of a parcel of land south of Saffron Walden, in Essex (Grid Reference: TL 54759 37406), hereinafter referred to as the 'site'.
- S.2. The proposed development will comprise an outline planning application for development of the site for up to 170 dwellings, associated landscaping and open space, with access from Thaxted Road, as shown in the layout plan (**Appendix 6**).
- S.3. The site is not covered by any designations that are the subject of statutory or non-statutory protection, nor are there any statutory or non-statutory designations within the appropriate zone of influence (Zoi) of the site.
- S.4. The majority of the site comprises arable fields, with the margins of this habitat including hedgerows, grassland, ruderal, scrub, ditches, and scattered trees. The development will comprise the loss of habitat which is of negligible ecological importance, as well as c.70m of hedgerow of local ecological importance to facilitate access to the site. However, the majority of hedgerow on site will be retained, as well as the associated margins of grass. Habitat loss is generally minimal, however where it is unavoidable, the proposed scheme will compensate for this loss through the creation of areas of habitat such as grassland and ponds. It is considered that the proposed habitat will deliver an overall biodiversity enhancement to the site.
- S.5. The proposals for the development demonstrate that it is possible to achieve a Biodiversity Net Gain for habitats and hedgerows, in accordance with the Biodiversity Metric 3.1 Auditing and accounting for Biodiversity Calculator Tool, 2022. The metric demonstrated that a 20.74% gain in habitat units (3.89 units), and a 10.9% net gain in hedgerow units (1.26 units) would be delivered by the scheme.
- S.6. Species recorded on site include foraging and commuting bats, a single reptile, an assemblage of nesting birds, with evidence of badger presence and suitable habitat available for great crested newt (GCN).
- S.7. The following mitigation controls are proposed to manage the delivery of the development in line with the recommendations provided in this report:
- A pre-commencement badger check and monitoring period are to be undertaken to ensure the proposed works will not disturb any active badger setts;
 - A Construction Environmental Management Plan (CEMP) will be produced to ensure certain habitat and species are protected during construction works;
 - A suitably qualified ecologist will oversee any vegetation removal where this poses a risk to protected species; and
 - A lighting plan will be produced to ensure important retained habitat will not be subject to excessive artificial lighting during the operational phase of development.



- S.8. With the implementation of the mitigation and enhancement measures described in **Section 4**, in combination with the proposed habitat creation, the proposed development would be in conformity with policies GEN7, ENV7, and ENV8 of the Uttlesford District Council Local Plan as listed in **Appendix 1**, as well as the Environment Act 2021¹.

¹ Environment Act 2021. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>



Section 1: Introduction

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Kier Property Ltd. It sets out the findings of an ecological assessment of a parcel of land south of Saffron Walden, in Essex (Grid Reference: TL 54759 37406), hereinafter referred to as the 'site'. The purpose of this report is to inform and assess an outline planning application for development of the site for up to 170 dwellings, associated landscaping and open space, with access from Thaxted Road, as shown in the layout plan (**Appendix 6**). The site location is presented in **Figure 1.1** below.



Figure 1.1 – Site location

Context

- 1.2. The site is approximately 7.8ha in size and predominantly comprises arable crop fields with hedgerows and associated margins of grassland, ruderal, and scrub habitat. A dry irrigation ditch separates the fields in the eastern half of the site, and there are scattered trees along the boundaries. The site lies at the urban extent of Saffron Walden, and is bordered to the north and west by housing, with a retail park to the east beyond the B184 (Thaxted Road). The landscape to the south is dominated by similar agricultural use.

Purpose

- 1.3. This Report:
- Uses available background data and results of field surveys, to describe and evaluate the ecological features present within the likely "zone of influence" (Zol);
 - Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's future development; and



- Where appropriate, describes mitigation of adverse effects and ecological enhancement, to ensure conformity with policy and legislation.

1.4. This assessment and the terminology used are consistent with the 'Guidelines for Ecological Impact Assessment in the UK and Ireland'².



Section 2: Methodology

Data Search

- 2.1. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.
- 2.2. The data search has been undertaken for a 10km radius around the site for European statutory sites, a 2km radius for national statutory, a 1km radius for non-statutory sites and a 1km radius for protected and priority species records.
- 2.3. The following organisations, individuals, and resources have been contacted and reviewed. Where relevant, the information provided has been incorporated with acknowledgement within this report:
 - Essex Field Club were contacted for details of protected and priority species and non-statutory sites and the information was received on 5th April 2022. Where relevant records were identified, the information provided has been incorporated into the report with due acknowledgement;
 - The Multi Agency Geographic Information for the Countryside website was accessed for information on the location of statutory designated nature conservation sites within a 10km and 2km search radius of the site;
 - Section 41 of the Natural Environment and Rural Communities (NERC) Act for priority species and habitats in England, subject to conservation action, to assist with the evaluation of ecological resources and to inform site enhancement strategies;
 - The Essex Biodiversity Action Plan was assessed for local priority habitats and species subject to conservation action, to assist with the evaluation of ecological resources and to inform site enhancement strategies; and
 - The Uttlesford District council website was accessed for details of relevant local planning policies and supplementary planning guidance.

Extended Phase I Habitat Survey

- 2.4. An 'extended' Phase I habitat survey was undertaken on 5th April 2022 by Daniel Lock, an experienced field ecologist. The technique was based upon Phase I survey methodology³. This 'extended' Phase I technique provides an inventory of the habitat types present and dominant species.
- 2.5. The weather conditions for the survey were dry with approximately 60% cloud cover, a temperature of 15°C, and a wind speed of 2 on the Beaufort scale.

³ <https://data.jncc.gov.uk/data/9578d07b-e018-4c66-9c1b-47110f14df2a/Handbook-Phase1-HabitatSurvey-Revised-2016.pdf>



Preliminary Bat Roost Appraisal

- 2.6. A preliminary assessment of all trees on site was undertaken, by Daniel Lock, to assess the potential to support roosting bats. This survey was undertaken alongside the 'extended' Phase I habitat survey. The surveys followed standard which are described below.
- 2.7. The PBRA for trees comprised a ground level inspection of all trees present on the site on 5th April 2022 to determine the potential of each tree to support roosting bats. During this survey, Potential Roost Features (PRFs) that may be used by bats, as identified within the BCT Good Practice Guidelines⁴ were sought. These included the following:
- Woodpecker holes, rot holes, knot holes arising from naturally shed branches and man-made holes;
 - Hazard beams and other vertical or horizontal cracks and splits (such as frost-cracks) in stems or branches;
 - Partially detached platey bark;
 - Cankers;
 - Other hollows or cavities, including butt-rots;
 - Partially detached ivy with stem diameters in excess of 50mm; and
 - Bird, bat or dormouse boxes.
- 2.8. Evidence of the presence of bat roosts was also sought. These signs include:
- Bat droppings in, around or below a PRF;
 - Odour emanating from a PRF;
 - Audible squeaking at dusk or in warm weather; and
 - Visible staining below a PRF.
- 2.9. The potential for trees to support roosting bats was then categorised against the criteria described in **Table 2.1**.



Table 2.1 – Roost Assessment Criteria⁵

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection conditions and surrounding habitat.

Protected Species Surveys

Bat Activity Surveys

- 2.10. The surveys followed standard methodologies set out in the Bat Mitigation Guidelines⁶ and the Bat Workers Manual⁷, and comprised both automated static surveys (to determine the bat activity over at least five consecutive nights) and manned activity transects (to observe a snapshot of bat behaviour for a single 2 hour period) undertaken seasonally between spring-autumn inclusive.
- 2.11. Two static detectors (Anabat Swifts) were placed on the site in separate locations for a minimum of five consecutive nights. Two locations were selected based on the ‘judgemental’ strategy described in section 8.2.4.2 of the Bat Conservation Trust guidance⁸ to cover key habitat which would likely be used by bats (see **14764/P06 Bat Survey Plan**). Likely commuting and foraging routes were selected on the western and eastern boundaries. Statics were deployed here three times over 2022, in May (spring), July (summer), and September/October (autumn). The bat detectors were set to begin recording half an hour before sunset and to continue until half an hour after sunrise. Detectors were placed 1.5-2m in height within the hedgerow, with the microphone angled slightly upwards. Echolocation calls were later analysed to identify calls characteristic of different bat species or groups of species present.
- 2.12. A single walked activity transect per season was undertaken in May (spring), August (summer), and September (autumn). Surveyors used a combination of visual observation and echolocation detection techniques to identify any bat activity on the site. Batlogger M2 detectors in transect mode or Echo Meter Touch detectors were used during the dusk activity surveys. All surveys commenced at sunset and lasted for two hours. Echolocation calls were recorded onto the detectors and saved for post survey analysis. Recordings were analysed using Bat Explorer software to examine any unidentified or queried calls. The surveys started approximately at

⁵ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

⁷ Mitchell-Jones, A.J, & McLeish, A.P. (eds). 2004., 3rd Edition Bat Workers' Manual, JNCC, Peterborough, ISBN 1 86107 558 8



sunset and ended approximately two hours after sunset, in accordance with survey good-practice guidelines. One transect route per survey was followed by a pair of surveyors, which followed the boundary of the site.

Reptile Surveys

- 2.13. Reptile surveys were undertaken to identify the presence or likely absence of common reptile species within areas of suitable habitat within the surveyed site, and if found to be present, determine their population size class. The survey was conducted in line with Froglife Advice Sheet 10⁹.
- 2.14. 95 refugia comprising 0.5x1m pieces of bitumen roofing felt, were deployed on 20th May 2022 within suitable areas of habitat, identified during the 'extended' Phase I habitat survey which generally followed the boundary of the site. Approximate locations of the refugia are presented in **14764/P05 Reptile Survey Plan**.
- 2.15. Refugia were allowed a bedding in period before seven subsequent checks were undertaken during suitable weather conditions (air temperature between 9-18°C (or up to 21°C if grass snakes are expected), dry, intermittent sun and light winds). Visual searches on top of the refugia and at natural basking spots were carried out, as well as searches of natural refugia, where present, were undertaken during each reptile survey visit.

Breeding Bird Surveys

- 2.16. A breeding bird survey was conducted by Paul Moon, an experienced ornithologist, on three separate visits in 2022. This survey was undertaken according to an adapted Common Bird Census (CBC) methodology^{10 11}. A transect route covering the entire site (see **14764/P02**, **14764/P03**, and **14764/P04**) was walked in the early morning on three occasions, in suitable weather conditions (avoiding cold, windy and wet days). On each survey, bird activity likely to indicate breeding was recorded on a map. The species of bird was noted using the standard (BTO) codes. Behaviour considered likely to indicate breeding included singing, display flights, mating, courtship displays, nesting, carrying of nesting material, and birds showing fidelity to a particular patch of ground or vegetation. The conservation status of the birds recorded was ascertained through consultation of the NERC act¹², Birds of Conservation Concern (BoCC) list¹³, and local bird reports.

Biodiversity Net Gain assessment

- 2.17. The Biodiversity Metric 3.1 metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the 'unit' value associated with each habitat type is calculated based on the following parameters:

[REDACTED]

¹⁰ Bibby, C., Burgess, N., Hill, D. and Mustoe, S. (2000). Bird Census Techniques. 2nd Edition

¹¹ Gilbert, G., Gibbons, D. and Evans, J. (1998). Bird Monitoring Methods

¹² Natural Environment and Rural Communities Act 2006. Available at:

<https://www.legislation.gov.uk/ukpga/2006/16/section/41>

¹³ [REDACTED]



- Size (in hectares)/Length (in km);
 - Distinctiveness (i.e. how rare/valuable a given habitat is);
 - Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
 - Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).
- 2.18. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the 'unit' value of a given habitat and these are:
- Time to reach the target condition of each habitat; and
 - Difficulty category for the creation of a given habitat.
- 2.19. A calculation has been undertaken using the baseline habitats identified during the Phase I survey.
- 2.20. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into the DEFRA 3.1 metric in hectares were rounded to three decimal places.

Evaluation

- 2.21. The evaluation of habitats and species is defined in accordance with published guidance¹⁴. The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, borough, and local.
- 2.22. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs)), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

Limitations

- 2.23. Surveys undertaken on site only reflect a snapshot in time, and therefore it is possible that species may be present on site which were not recorded.

Quality Control

- 2.24. All ecologists at Tyler Grange Group Ltd are members of or working towards membership of CIEEM and abide by the Institute's Code of Professional Conduct.



Section 3: Ecological Features and Evaluation

Protected sites

- 3.1. The data search returned no European statutory designated sites within 10km or nationally designated sites within 2km. Whilst no SSSIs fall within 2km of the site, the site is located within the impact risk zone (IRZ) of at least one SSSI. However, residential development is not described within the criteria of the IRZ requiring the local planning authority (LPA) to consult with Natural England (NE).
- 3.2. **Table 3.1** details the site name, geographical importance, approximate distance from site and the reason for designation for these statutory sites.

Table 3.1 – Details of non-statutory designations within a 2km radius of the site.

Site name	Designation	Distance and direction from site	Description
Roos Hill, Saffron Walden Special Roadside Verges	Local Wildlife Site (LWS)	0.8km south of the site boundary	Designated for its road verge supporting chalk grassland flora.
Fulfen Slade Lane	LWS	1.2km south of the site boundary	Designated for its varied woodland and grassland flora.
Pounce Wood	LWS	1.2km northeast of the site boundary	Designated for its replanted woodland, including Beech (<i>Fagus sylvatica</i>), Spruce (<i>Picea</i> sp.) and other conifers.
Audley End Park Wall Special Roadside Verge	LWS	1.6km northwest of the site boundary	Designated for its road verge, including a large population of Lesser Calamint (<i>Clinopodium calamintha</i>) and Wild Clary (<i>Salvia horminoides</i>), both Essex Red Data List species.
Audley Park Pastures LoWS	LWS	1.8km northwest of the site boundary	Designated for its dry grassland through to wet pasture, sedge beds and swamp habitats.
Crowney Wood	LWS	1.8km southeast of the site boundary	Designated for its ancient woodland, dominated by Ash (<i>Fraxinus excelsior</i>).

Habitat and Flora

- 3.3. The site supports the following habitat:

- Dense scrub;
- Scattered trees;
- Grassland;
- Tall ruderal;
- Arable;
- Hedgerows; and



- Ditches.

3.4. All the features described are shown on **14764/P01 Habitat Features Plan**.

Dense scrub

- 3.5. Dense scrub is present along the peripheral areas of the site, mostly in the southwest but also within the central boundaries associated with the ditches.
- 3.6. The scrub is dominated by bramble *Rubus fruticosus*, and also features hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, blackthorn *Prunus spinosa*, European spindle *Euonymus europaeus*, honeysuckle *Lonicera* sp., and ivy *Hedera helix*. Lower growing species include pendulous sedge *Carex pendula*, false-oat grass *Arrhenatherum elatius*, common nettle *Urtica dioica*, cow parsley *Anthriscus sylvestris*, lords and ladies *Arum maculatum*, and garlic mustard *Alliaria petiolata*.



Photograph 3.1 Bramble dominated scrub habitat



3.7. In accordance with the UK Habitat Classification Definitions¹⁵ and the Biodiversity Metric 3.1 Habitat Condition Assessment Sheets¹⁶, this habitat is described as mixed scrub of a moderate condition.

3.8. The dense scrub is common in the locality and does not contain particularly rare species, and is considered to be of **negligible ecological importance**.

Scattered trees

3.9. There are several trees within the site, all located on the boundaries. Species include ash, Italian maple *Acer opalus*, oak *Quercus* sp., hawthorn, sycamore *Acer pseudoplatanus*, and *Prunus* sp.

3.10. In isolation, individual trees of the species found on site are common and widespread. However, there are native species present with several mature trees, they are therefore of **local ecological importance**.

Grassland

3.11. Around the edge of the site, in between the arable land and hedgerow boundaries, there is a margin of improved grassland. The grassland comprises a generally short sward and is subject to disturbance where it intersects with a footpath on the south, west, and north boundaries of the site. Species found in this habitat include perennial rye-grass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, meadow foxtail *Alopecurus pratensis*, common nettle, greater plantain *Plantago major*, broad-leaved dock *Rumex obtusifolius*, white dead-nettle *Lamium album*, yarrow *Achillea millefolium*, cow parsley, dandelion *Taraxacum* sp., white clover *Trifolium repens*, cleavers *Galium aparine*, and bristly oxtongue *Helminthotheca echioides*.

3.12. The margins of grassland surrounding the ditches comprises semi-improved grassland, is of a taller sward (c. 50cm), and is dominated by Yorkshire fog, and also features perennial rye-grass, cock's foot, giant fescue *Festuca gigantea*, creeping bent *Agrostis stolonifera*, rosebay willowherb *Chamerion angustifolium*, yarrow, hogweed *Heracleum sphondylium*, cow parsley, white dead-nettle, garlic mustard, broad-leaved dock, greater stitchwort *Stellaria holostea*, red dead-nettle *Lamium purpureum*, white dead-nettle, white clover, teasel *Dipsacus fullonum*, and cleavers.





Photograph 3.2 Margin of semi-improved grassland

- 3.13. The improved and semi-improved grassland on site is described as modified grassland, of poor and moderate condition respectively, for the purposes for the biodiversity net gain (BNG) calculation.
- 3.14. This habitat is of little biodiversity value and is very common in the wider landscape, it is therefore considered to be of **negligible ecological importance**.

Tall ruderal

- 3.15. There are some small and isolated examples of tall ruderal vegetation present in the marginal habitat of the site. Species present include common nettle, cow parsley, white dead-nettle, garlic mustard, broadleaved dock, yarrow, rosebay willowherb and ragwort *Senecio jacobaea*.





Photograph 3.3 Ruderal vegetation

- 3.16. This habitat is described as ruderal/ephemeral of moderate condition for the purposes for the BNG calculation.
- 3.17. This habitat is of little biodiversity value and is very common in the wider landscape, it is therefore considered to be of **negligible ecological importance**.

Arable

- 3.18. The vast majority of the site comprises recently ploughed arable land, no plant species were recorded from this habitat.



Photograph 3.4 Arable field



- 3.19. This habitat is described as cereal crop, with no condition applied for the purposes of the BNG calculation.
- 3.20. This habitat is of **negligible ecological importance**.

Hedgerows

- 3.21. The site is surrounded by hedgerows on every boundary, subject to varying levels of management and with a range of species present. The majority of the hedgerows on site are species-rich (containing 5 or more native woody species), and comprise species such as hawthorn, blackthorn *Prunus spinosa*, elder, hazel *Corylus avellana*, ivy, spindle, ash and sycamore.



Photograph 3.5 Well-managed hedgerow with trees

- 3.22. Hedgerow descriptions for the purpose of the BNG calculation are as follows:
- Native Species Rich Hedgerow;
 - Native Species Rich Hedgerow with Trees; and
 - Native Hedgerow.
- 3.23. Hedgerows with just a single native woody species are a UK priority habitat¹⁷. The hedgerows on this site have good connectivity to off-site habitat, but are not rare in the locality, therefore they are considered to be of **local ecological importance**.

¹⁷ UK priority habitats are those subject to conservation action and referred to as Habitats of Principal Importance (HoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of HoPIs



Ditches

- 3.24. The site features intersecting irrigation ditches which lead off-site. The ditches are seasonally wet and vegetated with species such as rosebay willowherb, marsh stitchwort *Stellaria palustris*, and marsh marigold *Caltha palustris*.



Photograph 3.6 Irrigation ditch with grass margins

- 3.25. This habitat is described as ditch of poor condition for the purposes of the BNG calculation.
- 3.26. The ditches are of little biodiversity value and are a common feature of agricultural land in the vicinity, therefore they are considered to be of **negligible ecological importance**.

Fauna

Badger

- 3.27. 1 record of badger *Meles meles* was returned from the data search within 400m of the site.
- 3.28. There are isolated examples of woodland in the locality, the site itself and it's immediate surroundings also include hedgerows, which together comprise suitable badger habitat.

- 3.30. Any badger population using the site is considered to be of **negligible ecological importance**, but badgers are considered further in this report due to their legal protection.



Bats

- 3.31. The data search returned 9 records of bat species, all of which were common pipistrelle *Pipistrellus pipistrellus*, or unidentified pipistrelle species, although no records are more recent than 2005. 2 EPS licences for bat were also returned within 2km of the site boundary, as listed below:
- 1 bat licence for Common pipistrelle *Pipistrellus pipistrellus* and Brown long-eared bat *Plecotus auritus* was returned c. 1.53km east of the site, allowing destruction of a resting place (2014-5818-EPS-MIT); and
 - 1 bat licence for Common pipistrelle *Pipistrellus pipistrellus* was returned c. 1.49km north of the site, allowing damage and destruction of both breeding and resting sites (2015-13544-EPS-MIT).
- 3.32. All trees on site were subject to a PBRA, of which 21 were recorded as having low potential to support roosting bats, 2 with moderate potential, and 1 with high potential.
- 3.33. The site features suitable foraging and commuting habitat in the form of hedgerows, which also provide connectivity to off-site habitat. However, the suitable habitat is limited to the boundaries of the site, with the vast majority of the site comprising arable land that is unsuitable habitat for bats. In accordance with Table 4.1 of the Bat Survey Guidelines¹⁸, the available habitat on site and in the immediate vicinity is considered to be of low suitability.
- 3.34. Both automated and manned bat activity surveys were undertaken seasonally on the site, the full results for which can be found in **Appendix 5** and presented in **14764/P06 Bat Survey Plan**. In summary, the following species of bat were recorded on site:
- Barbastelle *Barbastella barbastellus*;
 - Brown long-eared *Plecotus auratus*;
 - Common pipistrelle *Pipistrellus pipistrellus*;
 - *Myotis* sp;
 - *Nyctalus* sp;
 - Serotine *Eptesicus serotinus*; and
 - Soprano pipistrelle *Pipistrellus pygmaeus*.
- 3.35. From the manned activity transects, the southwestern corner of the site recorded the most bat activity, which is likely linked to a small area of woodland being present just off the southern boundary at this location. Behaviour such as foraging and commuting was observed during the transects, and bats were typically recorded along the boundaries of the site.
- 3.36. A barbastelle was also recorded during the manned transect, although this was identified through sound analysis and was not observed by the surveyor during the transect. Whilst two recordings contained barbastelle echolocation, they were recorded 3 seconds apart, and so it is considered



likely that this was an individual barbastelle. It was recorded in the southwest corner of the site, adjacent to the off-site woodland.

- 3.37. The static detectors captured common and widespread species in relatively low numbers across all of the seasonal deployments, with common pipistrelle being recorded much more frequently than any other species.
- 3.38. Barbastelle was also recorded on the static detectors in each season, and with a greater level of activity than noted on the transect. However, the levels of activity recorded for barbastelle are still relatively low, and much lower than that of common pipistrelle.
- 3.39. The habitat on site which is suitable for bats (trees and hedgerows) is ubiquitous in the local landscape, coupled with the vast majority of species recorded being common and widespread, it is considered that the assemblage of bat species using the site is of no more than **local ecological importance**.

Reptiles

- 3.40. 3 records of grass snake *Natrix helvetica* were returned from the data search, with the nearest being within 300m of the site boundary. No other reptile species were identified in the data search.
- 3.41. The vegetated margins and boundaries of the site comprise suitable reptile habitat, and provide connectivity off-site.
- 3.42. Reptile surveys were undertaken to determine presence/likely absence, the weather data for which are presented in full in **Appendix 3**.
- 3.43. Throughout the surveys, only one reptile was recorded, a juvenile common lizard *Zootoca vivipara* along the northern boundary. Despite the single recording, a juvenile suggests that there is a breeding population of common lizard in the vicinity, which may occasionally use the site. Therefore, reptiles are considered further in **Section 4**.
- 3.44. Given the single recording of a reptile and the relatively limited availability of suitable habitat on site or in the immediate vicinity, it is considered that any population of reptiles using the site would be of no more than **local ecological importance**.

Great crested newt

- 3.45. 3 records of amphibians were returned from the data search, but these were all common frog *Rana temporaria*. No records of great crested newt *Triturus cristatus* (GCN) were returned from a 2km data search from the site boundary.
- 3.46. There are off-site ponds located in the vicinity of the site boundary, the nearest one being c.260m to the south of the site (**14764/P07 Pond Plan**). These ponds could not be accessed for the undertaking of eDNA or habitat suitability index surveys (HSI). On site, there is suitable terrestrial habitat for GCN in the form of ruderal and scrub habitat, however this is not well connected to the off-site pond through suitable habitat.
- 3.47. Given the distance between the nearest ponds and the site, the low quality habitat connectivity between the ponds and the site, and the relatively limited suitable terrestrial habitat on site, any population of GCN using the site would be of no more than **local ecological importance**.



Birds

- 3.48. From the data search, 12 records of species protected under Schedule 1 of the Wildlife and Countryside Act¹⁹ were returned within 2km of the site, which were as follows: barn owl *Tyto alba*, firecrest *Regulus ignicapilla* and red kite *Milvus milvus*.
- 3.49. 8 records of Species of Principal Importance (SoPI)²⁰ were returned within 2km of the site, which were as follows: bullfinch *Pyrrhula pyrrhula*, dunnock *Prunella modularis*, grey partridge *Perdix perdix*, starling *Sturnus vulgaris*, tree sparrow *Passer montanus*, yellowhammer *Emberiza citrinella*.
- 3.50. 53 records of species on the BoCC Red list²¹ were returned within 2km of the site, which were as follows: greenfinch *Chloris chloris*, grey partridge, house martin *Delichon urbicum*, house sparrow *Passer domesticus*, mistle thrush *Turdus viscivorus*, starling, swift *Apus apus*, tree sparrow and yellowhammer.
- 3.51. 27 records of species on the BoCC Amber list were returned within 2km of the site, which were as follows: black-headed gull *Chroicocephalus ridibundus*, bullfinch, dunnock, lesser black-backed gull *Larus fuscus*, mallard *Anas platyrhynchos*, moorhen *Gallinula chloropus*, sparrowhawk *Accipiter nisus*, tawny owl *Strix aluco* and white-tailed eagle *Haliaeetus albicilla*.
- 3.52. Given the suitable farmland habitat that exists on site for breeding birds, surveys were undertaken in May, June, and July, the full results for which are available in **Appendix 2**. In summary, species which were recorded on site and are Schedule 1, SoPI, or BoCC amber or red listed species are listed below in **Table 3.2**, alongside any observed breeding behaviour.

Table 3.2 – Summary of breeding bird survey results.

Species	Status (SoPI/BoCC listed)	Visit 1	Visit 2	Visit 3	Breeding Behaviour
Greenfinch	Red	x	x		Possible breeder – Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat.
Starling	SoPI, Red	x	x		Confirmed breeding – Adult carrying or food for young.
Whitethroat <i>Sylvia communis</i>	Amber	x	x	x	Possible breeder – Species observed in breeding season in suitable nesting habitat. Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat.
Song thrush <i>Turdus philomelos</i>	SoPI, Amber	x	x	x	Possible breeder – Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat.

¹⁹ <https://www.legislation.gov.uk/ukpga/1981/69/schedule/1>

²⁰ UK priority species are those subject to conservation action and referred to as Species of Principal Importance (SoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of SoPIs.



Species	Status (SoPI/BoCC listed)	Visit 1	Visit 2	Visit 3	Breeding Behaviour
Yellowhammer	Red	x	x	x	Confirmed breeding - Adult carrying food for young.
Linnet <i>Linaria cannabina</i>	SoPI, Red	x	x	x	Probable breeder - Nest Building.
Skylark <i>Alauda arvensis</i>	SoPI, Red	x	x		Probable breeder - Pair observed in suitable nesting habitat in breeding season
Dunnock	SoPI, Amber	x	x	x	Possible breeder - Species observed in breeding season in suitable nesting habitat. Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat.
House sparrow	SoPI, Red	x		x	Possible breeder - Species observed in breeding season in suitable nesting habitat.
Woodpigeon <i>Columba palumbus</i>	Amber	x	x	x	Possible breeder - Species observed in breeding season in suitable nesting habitat.
Sparrowhawk	Amber		x		Non-breeding - Species observed perched on a tree on site. Suspected to be a non-breeder, but may be nesting in the locality.
Wren <i>Troglodytes troglodytes</i>	Amber	x	x	x	Possible breeder - Species observed in breeding season in suitable nesting habitat.
Swift	Red			x	Non-breeding - Flying over

- 3.53. The surveys confirmed breeding territories for starling and yellowhammer on site, with linnet and skylark probable breeding territories also present on site. All species observed on site typically nest in hedgerow and scrub habitat, or habitat which is not present on site, such as buildings and woodland. The exception to this is skylark, which nests on arable land.
- 3.54. Across the 3 surveys, skylark were observed on site twice (a pair on one occasion and a single male on another), and were also heard singing. However, it was noted that more singing was heard in the neighbouring fields, where more pairs of skylark were also observed. No further evidence of breeding beyond the presence of a single pair was observed from skylark across the surveys.
- 3.55. The off-site habitats include arable fields with mature trees and hedgerows throughout the wider landscape. As such, given that the surrounding habitats are of a similar type and quality it is unlikely that the bird assemblage utilising the site would be solely reliant upon resources within it. Therefore, the breeding bird assemblage recorded is considered to be of no more than **local ecological importance**.



Section 4: Impacts, Mitigation, and Enhancement

Proposed Development

- 4.1. The proposed development comprises a residential scheme of 170 units with associated landscaping and access. The scheme proposes to develop the arable fields but retain all hedgerows, trees, and associated boundary habitat within the scheme. The only exception to this is a minor removal of hedgerow at the point of access from Thaxted Road. Furthermore, the boundary habitat to be retained will be protected from the effects of development by applying areas of buffer planting, as shown in the layout plan (**Appendix 6**).
- 4.2. The proposed landscaping will introduce areas of tree, shrub, hedgerow, and grassland planting, as well as multiple SuDS features, which will lead to an overall enhancement of the habitat on site.

Protected Sites

- 4.3. There are no statutory internationally or nationally designated sites within the respective radii of the site. The nearest non-statutory designation is 0.8km to the south of the site, and is designated for the presence of road verges supporting chalk grassland flora.
- 4.4. The proposed development is not considered to impact any local wildlife sites, largely owing to the distance and the lack of impact pathways between the site and the nearest designations.

Habitat

- 4.5. The majority of the habitat to be lost as a consequence of development is of negligible importance, comprising c.5.9ha of arable fields.
- 4.6. The existing hedgerows, which are the only habitat on site of local ecological importance, trees, ditches, and marginal areas of vegetation will be protected from development. Measures will be included in a Construction Environmental Management Plan (CEMP) to protect this habitat from adverse effects during the construction phase.
- 4.7. Approximately 70m of hedgerow is also to be removed to facilitate access to the site, however the proposed areas of planting throughout the scheme will more than mitigate for this minor loss, and ultimately deliver an enhancement to the habitat on site. At the detailed design stage, there will be an inclusion of 250m of planted native species-rich hedgerows with trees.
- 4.8. Tyler Grange have inputted to the scheme design from the inception of the project, and consequently the development proposes to retain the most important ecological features, whilst also delivering an overall enhancement to biodiversity through the creation of new habitats on site. The scheme is therefore compliant with local plan policies GEN7 and ENV8 of the Uttlesford District Council Local Plan.
- 4.9. The scheme also achieves a biodiversity net gain of 20.74% in habitat units (3.89 units) and a 10.9% net gain in hedgerow units (1.26 units). This is based on the loss of predominantly arable land and a minor removal of hedgerow, replaced by the proposed planting areas of grassland, mixed scrub, and SuDS features. Full results are detailed in **Appendix 7**.



Fauna

Badger

- 4.10. The Protection of Badgers Act 1992 consolidates the previous Badger Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage, or obstruction of a badger sett an offence.
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

- 4.13. During the construction phase, precautionary methods would be implemented and detailed in a CEMP to avoid harm to badgers, including:
- All earth works and excavations which could potentially trap badger should be covered at the end of daily operations where practicable, with the inclusion of a ramp to escape;
 - Work is to be undertaken during the daytime where practicable, when badgers are least active, to minimise disturbance to their foraging activities; and
 - Overnight lighting should be kept to a minimum.
- 4.14. With the implementation of these measures, any harm to badgers will be prevented during the construction phase.
- 4.15. Whilst the habitat on site is presently suitable for foraging badgers, it is considered that the proposed scheme will enhance opportunities for this species, providing more planted areas of hedgerow, shrub, and grass margins, and creating better connectivity across the site and off-site to further suitable habitat.

Bats

- 4.16. As European protected species, all UK bats receive legal protection in England under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act (WCA) 1981 (as amended).
- 4.17. Several trees on site were identified as having potential to support roosting bats, any potential roosts will not be affected during construction works as all trees are to be retained and buffers provided between trees and the development. During the occupation of the site, the buffer areas will further ensure that trees are protected from noise, illumination, and other potential disturbances.
- 4.18. The habitat which is suitable for foraging and commuting bats on site presently comprises the hedgerows and trees. This will almost entirely be retained within the proposed scheme, and there



will be new areas of planting and SuDS features installed. This will not only protect habitat of value on site for bats, but also increase the habitat diversity, with new opportunities for foraging over wildflower grassland and SuDS features, both of which will increase the invertebrate resource of the site.

- 4.19. The majority of the bat activity recorded on site from the manned transects was observed on the southern boundary (see **14764/P06 Bat Survey Plan**). The northern boundary, where hedgerow is to be removed, was much quieter for bat activity, and it is therefore considered that the lengths of hedgerow proposed for removal are of less importance to bats than other areas of the site.
- 4.20. Both the existing and newly created habitat will be protected from illumination during the operational phase through a lighting plan, to be secured by a suitably worded planning condition. Illumination of highways and public open space will be in accordance with best practice guidance²², and will not directly illuminate hedgerows or other suitable foraging habitat, nor will these areas be illuminated by light spill. The use of suitable lighting specification and the implementation of hoods and shields on the lamps are such measures that would achieve the desired levels of darkness in these areas.
- 4.21. During construction, any impacts to bats using the hedgerows or the trees for foraging, commuting, or roosting, will be prevented through measures set out in a CEMP, such as;
- No overnight illumination of hedgerows or trees in accordance with best practice guidance; and
 - Buffers between construction work and the boundaries will be provided to ensure noise and vibration to potential roosts is prevented during the day.
- 4.22. The newly proposed planting scheme will provide new foraging and commuting corridors across the site for bats, and so the development is not considered likely to have an adverse effect on the local bat population. In line with policy GEN7 of the Uttlesford District Council Local Plan, the implementation of the above measures would prevent harm occurring to bat species which use the site.

Reptiles

- 4.23. All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally (or recklessly, in Scottish law) kill or injure a reptile.
- 4.24. During construction works, any minor vegetation removal (such as the short length of hedge removed for access) has potential to disturb, injure, or a kill a reptile which may be present. Such activity will therefore be supervised by a suitably qualified ecologist (SQE). Details of this supervision will be included within a CEMP, summarised below, to be secured by a suitably worded planning condition.
- All contractors will be given a toolbox talk by a SQE prior to commencement of works;

²² Bat Conservation Trust., Institution of Lighting Professionals. (2018). Bats and artificial lighting in the UK Bats and the Built Environment series. BCT & ILP.



- Habitats to be retained in the development will be marked out by a barrier to prevent unnecessary vegetation removal and discourage the storage of materials here;
 - A long cut (>15cm) of grassland vegetation will be undertaken, followed by a check for reptiles by the SQE; and
 - A hand search of the root areas and possible refuges of the hedgerow will be undertaken by the SQE, before they supervise a destructive search, and ultimately the complete removal of the hedgerow.
- 4.25. The marginal vegetation at the boundaries comprises suitable habitat for reptiles, and a single juvenile common lizard was recorded during the survey effort. As the marginal habitat is to be retained within the development, there is not considered to be a long-term impact to the local population of reptiles.
- 4.26. The proposed areas of planting within the scheme comprising wildflower grassland, areas of shrub, and buffer grassland to hedgerows will all create new suitable edge habitat for reptiles. This will allow reptiles to traverse the site and seek shelter with greater ease than the present conditions on site, which comprises mostly unsuitable arable land which reptiles would not use.

Great crested newt

- 4.27. GCN are listed on Appendix II of the Bern Convention and on Annexes II and IV of the EU Natural Habitats Directive. In England and Wales the great crested newt is protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In Scotland, great crested newts are protected under Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).
- 4.28. The marginal vegetation on the site is suitable terrestrial habitat for GCN, although no ponds are present on or immediately adjacent to the site.
- 4.29. A rapid risk assessment (RRA)²³ was undertaken to determine whether an offence (killing/injury of GCN) was likely to occur (see full results in **Appendix 4**). For the purposes of this RRA, the nearest pond to the site is assumed to be a GCN breeding pond. If the suitable terrestrial habitat for GCN is considered to be lost, comprising scrub and ruderal habitat (<0.5ha), then the result is green (offence highly unlikely).
- 4.30. Whilst the results of the RRA suggest that the loss of such a small area of suitable terrestrial GCN habitat would be unlikely to trigger an offence, it is still possible that GCN may use the on-site habitat.
- 4.31. As no presence/absence surveys were undertaken on the ponds within 500m of the site, any removal of suitable terrestrial habitat will be undertaken with the assumption that GCN may be present. As such, vegetation removal will be overseen by a SQE, and further construction related protections for GCN included in a CEMP.
- 4.32. As with reptiles, the proposed habitat creation, including areas of grass, hedgerow, and shrub will enhance the terrestrial habitat offering for GCN. Additionally, the creation of SuDS ponds will

²³ Template for Method Statement to support application for licence under Regulation 55(2)(e) of The Conservation of Habitats and Species Regulations 2017 (as amended) in respect of great crested newts *Triturus cristatus*. Form WML-A14-2 (Version April 2020)



create more habitat diversity for GCN on site, and ultimately enhance the habitat available for the local GCN population.

Birds

- 4.33. In England and Wales, birds and their nests are protected under the Wildlife and Countryside Act (1981) (as amended). All breeding birds, their nests, eggs and young are protected under the WCA 1981 (as amended), which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. Species listed under Schedule 1 of the WCA 1981 are afforded additional protection from disturbance while breeding.
- 4.34. The site is considered to support a common and widespread assemblage of breeding birds. The hedgerows and trees on the site comprise suitable habitat for many nesting birds. In addition, the short crop associated with the arable fields is suitable nesting habitat for skylark. In order to ensure legal compliance, vegetation removal should be undertaken outside of the nesting season (March to August inclusive, although birds can nest at any time of year) or preceded by a check for active nests by a SQE. Should any active nests be found, an appropriate buffer would be maintained until such time as the nest is deemed to be no longer supporting young, as confirmed by the ecologist on site.
- 4.35. The surveys demonstrated that there were several possible breeding pairs of different species on site, with linnet and skylark being identified as probably breeding, and starling and yellowhammer confirmed to be breeding. Hedgerows comprise suitable nesting habitat for most these species, and they will be broadly retained on site. Proposed planting will lead to an increase in suitable habitat for hedgerow-nesting bird species, enhancing the overall value of the site. New habitat will be created through wildflower grassland and shrub planting, providing habitat for a wider array of bird species on site.
- 4.36. The removal of arable land to enable development and the minor removal of boundary vegetation to facilitate access, would comprise a loss of habitat for breeding birds. However, it is noted that the nesting species identified on site are largely confined to the site boundaries, the majority of which will remain intact. In addition, to the retained areas, the provision of wildflower grassland and shrub areas will improve the extent and quality of the available habitat for breeding birds.
- 4.37. Whilst skylark are protected as a SoPI and are BoCC red listed, they are also a common and widespread species. It is considered that, whilst a skylark pair may be using the site, the wider landscape offers sufficient breeding opportunities for this species. Furthermore, it is likely that the skylark population in the wider landscape will move between different arable fields depending on whether they are sown with spring cereals which provides suitable nesting habitat other more unsuitable crop rotations such as winter cereals or oil seed rape.
- 4.38. For the overall breeding bird assemblage, the creation of additional hedgerow, grassland and shrub habitat will provide greater and more diverse opportunities for the vast majority of nesting birds which use the site.



Section 5: Conclusion

- 5.1. With the implementation of the mitigation and enhancement measures described in **Section 4**, in combination with the proposed habitat creation, the proposed development would be in conformity with relevant planning policy and legislation as listed in **Appendix 1**. Specifically, by enhancing the biodiversity of the site, the scheme is in compliance with *Policy GEN7 – Nature Conservation* of the Uttlesford District Council Local Plan.
- 5.2. The baseline of the site comprises mostly arable land of negligible ecological importance, with vegetated boundaries, hedgerows with trees, and ditches. Species recorded on site include foraging and commuting bats, a single reptile, an assemblage of nesting birds, with evidence of badger presence and suitable habitat available for GCN.
- 5.3. The development proposes to retain the majority of the hedgerows/vegetated boundaries and all of the ditches, and replace the arable land, of negligible ecological important, with a mix of housing and associated sealed surfaces. In addition, the development will include new areas of wildflower grassland, shrub planting, and SuDS ponds.
- 5.4. Impacts to habitat and protected species primarily comprise the minor loss of hedgerow, which is suitable habitat for reptile, GCN, and bats, and the loss of the arable land, which comprises suitable breeding habitat for skylark.
- 5.5. The loss of what is mostly habitat of negligible ecological importance and the introduction of new areas of more valuable habitat is considered to provide an overall long-term benefit to biodiversity and protected species on the site.
- 5.6. The following controls are proposed to manage the delivery of the development in line with the recommendations provided in this report:
- A pre-commencement badger check and monitoring period will be undertaken of any badger setts which may be affected by development. Should the sett be active then a licence will be sought to undertake works within 30m of the sett from NE;
 - A CEMP will be produced to ensure certain habitat and species are protected from construction works;
 - A SQE will oversee any vegetation removal where this poses a risk to protected species; and
 - A lighting plan will be produced to ensure the hedgerows and vegetated boundaries of the site are not subject to excessive artificial lighting during the operational phase of development.
- 5.7. The proposals demonstrate that a net gain in biodiversity is possible for habitat and hedgerows, in accordance with NE's latest BNG metric (The Biodiversity Metric 3.1 Auditing and accounting for Biodiversity Calculator Tool, 2022), see **Appendix 7**.
- 5.8. Overall, the development is considered to be in conformity with policies GEN7, ENV7, and ENV8 of the Uttlesford District Council Local Plan, as well as national policy, all of which is listed in **Appendix 1**.



Appendix 1: Legislation and Planning Policy

Legislation

- A1.1 Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
 - The Conservation of Habitats and Species Regulations 2018;
 - The Countryside and Rights of Way (CRoW) Act 2000;
 - The Natural Environment and Rural Communities Act (NERC) 2006;
 - The Hedgerows Regulations 1997; and
 - The Protection of Badgers Act 1992.
- A1.2 The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2018 (as amended).
- A1.3 In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A1.4 The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

National Planning Policy

- A1.5 The National Planning Policy Framework (NPPF) was updated in July 2021 and sets out the Government's planning policies for England and how these should be applied. It replaces the National Planning Policy Framework published in July 2019.
- A1.6 Paragraph 11 states that:
- "Plans and decisions should apply a presumption in favour of sustainable development."*
- A1.7 Section 15 of the NPPF (paragraphs 174 to 182) considers the conservation and enhancement of the natural environment including habitats and biodiversity (paragraphs 179-182)
- A1.8 Paragraph 174 states that planning and decisions should contribute to and enhance the natural and local environment by:



- *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”*

A1.9 Paragraph 175 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

A1.10 Paragraph 179 states that in order to protect and enhance biodiversity and geodiversity, plans should:

- *“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

A1.11 When determining planning applications, Paragraph 180 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- *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.”

A1.12 As stated in paragraph 181 the following should be given the same protection as habitats sites:

- *“potential Special Protection Areas and possible Special Areas of Conservation;*
- *listed or proposed Ramsar sites; and*
- *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

A1.13 Paragraph 182 states that the presumption in favour of sustainable development does not apply where the planned project is likely to have a significant effect on a habitat site (alone or in combination with other plans or projects) unless an appropriate assessment has concluded the plan or project will not adversely affect the integrity of the habitats site.

Local Planning Policy

Uttlesford District Council Local Plan

Policy GEN7 – Nature Conservation

A1.14 Development that would have a harmful effect on wildlife or geological features will not be permitted unless the need for the development outweighs the importance of the feature to nature conservation. Where the site includes protected species or habitats suitable for protected species, a nature conservation survey will be required. Measures to mitigate and/or compensate for the potential impacts of development, secured by planning obligation or condition, will be required. The enhancement of biodiversity through the creation of appropriate new habitats will be sought.

Policy ENV7 – The Protection of the Natural Environment – Designated Sites

A1.15 Development proposals that adversely affect areas of nationally important nature conservation concern, such as Sites of Special Scientific Interest and National Nature Reserves, will not be permitted unless the need for the development outweighs the particular importance of the nature conservation value of site or reserve.

A1.16 Development proposals likely to affect local areas of nature conservation significance, such as County Wildlife sites, ancient woodlands, wildlife habitats, sites of ecological interest and Regionally Important Geological/ Geomorphological Sites, will not be permitted unless the need for the development outweighs the local significance of the site to the biodiversity of the District. Where development is permitted the authority will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site’s conservation interest.

Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation

A1.17 Development that may adversely affect these landscape elements: hedgerows, linear tree belts, larger semi-natural or ancient woodlands, semi-natural grasslands, green lanes and special verges, orchards, plantations, ponds, reservoirs, river corridors, linear wetland features, networks or patterns of other locally important habitats, will only be permitted if the following criteria apply:



a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora;

b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value of the locality. Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.



Appendix 2: Bird Survey Results

Table A2.1 – Metadata from the bird surveys

Visit Number	Date 2022	Start	End	Weather Conditions (start)			
				Air Temp (°C)	Cloud cover (%)	Precipitation	Wind (Beaufort scale)
1	29/05	04:45	08:15	6	0	Dry	2
2	09/06	04:45	08:20	12	5	Dry	2
3	05/07	05:10	08:30	12	10	Dry	1

Table A2.2 – Summary of breeding bird survey results and their protection status (refer to **14764/P02**, **14764/P03**, and **14764/P04** for record of behaviour).

Name	Status	May	June	July
Greenfinch	Red	x	x	
Chaffinch		x		x
Starling	SoPI, Red	x	x	
Blackcap		x		x
Whitethroat	Amber	x	x	x
Lesser whitethroat		x	x	
Song thrush	SoPI, Amber	x	x	x
Yellowhammer	Red	x	x	x
Linnet	SoPI, Red	x	x	x
Skylark	SoPI, Red	x	x	
Dunnock	SoPI, Amber	x	x	x
House sparrow	SoPI, Red	x		x
Woodpigeon	Amber	x	x	x
Grey heron		x		
Sparrowhawk	Amber		x	
Wren	Amber	x	x	x
Robin			x	x
Goldcrest			x	
Goldfinch				x
Blackbird				x
Swift	Red			x
Great tit				x
Blue tit				x
Buzzard				x



Appendix 3: Reptile Survey Metadata

Table A3.1 – Reptile survey metadata

Visit Number	Date 2022	Start	End	Weather Conditions (start)			
				Air Temp (°C)	Cloud cover (%)	Precipitation	Wind (Beaufort scale)
1	27/05	08:30	10:15	13	20	Dry	3
2	1/06	19:10	20:20	15	30	Dry	2
3	6/06	16:00	17:00	14	90	Dry but earlier rain	2
4	15/06	07:30	08:50	13	0	Dry	2
5	20/06	08:00	08:45	16	0	Dry	3
6	30/06	10:00	10:30	16	100	Dry but earlier rain	3
7	5/07	10:15	10:45	16	70	Dry	3



Appendix 4: Rapid Risk Assessment Results

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	5 - 10 ha lost or damaged	0.5
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.5
Rapid risk assessment result:	AMBER: OFFENCE LIKELY	

Figure A4.1 – RRA results when the entire site is considered to be impacted by development

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Figure A4.2 – RRA results when only suitable terrestrial habitat for GCN is considered to be impacted by development



Appendix 5: Bat Survey Results

Table A5.1 – Bat activity transect survey metadata

Visit Number	Date 2022	Start	Sunset	End	Weather Conditions			
					Temp. start (°C)	Temp. end (°C)	Precipitation	Wind (Beaufort scale)
1	30/05	21:06	21:06	23:06	14	9	Light rain/dry	1
2	05/08	20:44	20:44	22:44	19	16	Dry	3
3	26/09	18:47	18:47	20:47	12	12	Dry	4

Table A5.2 – Bat static detector survey metadata

Visit Number	Date 2022	Sunrise	Sunset	Weather Conditions (overnight)			
				Temp. Max (°C)	Temp. Min (°C)	Precipitation	Wind (km/h)
1	25/05	04:54	21:00	15	9	0	11-19
	26/05	04:52	21:02	15	12	0	7-22
	27/05	04:51	21:03	12	8	0	4-15
	28/05	04:50	21:04	10	6	0	6-11
	29/05	04:49	21:05	9	4	0	2-9
2	6/07	04:49	21:20	18	16	0	9-19
	7/07	04:49	21:20	16	13	0	4-11
	8/07	04:50	21:19	20	14	0	6-9
	9/07	04:51	21:18	16	12	0	6-13
	10/07	04:52	21:18	20	15	0	4-13
3	29/09	06:57	18:44	11	7	0	4-9
	30/09	06:59	18:41	14	11	0	9-41
	1/10	07:00	18:39	13	11	0	4-15
	2/10	07:02	18:37	11	4	0	2-6
	3/10	07:03	18:34	14	11	0	7-20



Table A5.3: Results of automatic activity surveys, May 2022

	Loc 1	Ppi	Ppy	My	BLE	Nyctalus	Barb
Day 1	25/05	8	3	0	0	0	0
Day 2	26/05	4	0	0	0	0	0
Day 3	27/05	10	1	0	0	0	0
Day 4	28/05	2	0	2	0	1	0
Day 5	29/05	0	0	0	0	0	0
Total		24	4	2	0	1	0
	Loc 2	Ppi	Ppy	My	BLE	Nyctalus	Barb
Day 1	25/05	187	1	0	0	0	0
Day 2	26/05	43	1	0	0	0	0
Day 3	27/05	126	3	0	1	0	3
Day 4	28/05	177	2	0	0	0	3
Day 5	29/05	58	0	2	0	0	6
Totals		591	7	2	1	0	12



Table A5.4: Results of automatic activity surveys, July 2022

	Loc 1	Ppi	Ppy	My	Sero/Myo	Barb
Day 1	6/07	16	0	0	0	0
Day 2	7/07	10	1	1	1	0
Day 3	8/07	0	1	0	0	0
Day 4	9/07	1	0	0	0	0
Day 5	10/07	0	0	0	0	0
Total		27	2	1	1	0
	Loc 2	Ppi	Ppy	My	Nyctalus	Barb
Day 1	6/07	36	0	8	1	5
Day 2	7/07	506	0	21	0	42
Day 3	8/07	180	0	6	0	7
Day 4	9/07	119	4	3	1	3
Day 5	10/07	65	0	5	0	0
Totals		906	4	43	2	57



Table A5.5: Results of automatic activity surveys, September/October 2022

	Loc 1	Ppi	Ppy	My	Pip sp.	Nyc	Barb
Day 1	29/09	12	2	4	0	1	7
Day 2	30/09	0	0	2	0	1	0
Day 3	1/10	31	3	0	0	1	13
Day 4	2/10	54	3	5	0	35	11
Day 5	3/10	83	3	2	0	35	21
Total		180	11	13	0	73	52
	Loc 2	Ppi	Ppy	My	Pip sp.	Nyc	Barb
Day 1	29/09	4	0	1	7	0	0
Day 2	30/09	3	0	0	1	0	0
Day 3	1/10	77	6	0	0	0	0
Day 4	2/10	23	0	0	0	0	0
Day 5	3/10	4	0	0	0	0	0
Totals		111	6	1	8	0	0

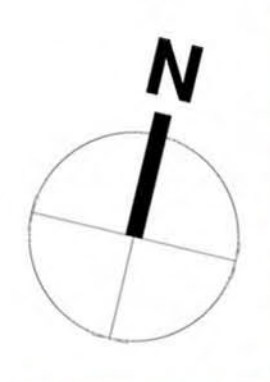
Table A5.6 – Bat activity transect survey results

Visit Number	Date 2022	Ppi	Ppy	Barb
1	30/05	28	0	0
2	05/08	62	2	0
3	26/09	7	0	2
Totals		97	2	2



Appendix 6: Proposed Layout





0m 20m 40m 60m 80m 100m
Scale




Client
Kier Group

Drawing Title
Sketch Scheme

Project
Land West of Thaxted Road, Saffron Walden

Scale
1:500 @ A0

 Omega Architects The Foundry, 124 Manor Road North Thames Ditton, Surrey, KT11 0BN T: 01392 470232 W: www.omega-architects.co.uk	Project No	3118	Client	C	Design No	1005	Drawn By	SK	Checked By	G
	<small>© Omega Architects 2018. All rights reserved. This drawing is the property of Omega Architects and is not to be used, copied, reproduced or distributed without the prior written consent of Omega Architects.</small>									

Appendix 7: Biodiversity Net Gain report



Land West of Thaxted Road, Saffron Walden Biodiversity Net Gain Assessment Report

Introduction

- 1.1 Tyler Grange Group Ltd was instructed by Kier Property Ltd to undertake a Biodiversity Net Gain (BNG) assessment of a parcel of land south of Saffron Walden, in Essex (Grid Reference: TL 54759 37406), hereinafter referred to as the 'site'. This report should be read in conjunction with the Ecological Assessment submitted with the associated planning application (TG Ref: **14764_R02_Ecological Assessment_111122_HDBJ**).
- 1.2 The site measures approximately 7.8 hectares and comprises mostly arable land, with margins of dense scrub, tall ruderal, improved grassland, hedgerows with trees, and ditches.
- 1.3 As part of the Phase I survey, all habitats were assessed with reference to the UK Habitat Classification (The UK Habitat Classification Working Group, 2018¹) and the Biodiversity Metric technical supplement (Natural England, 2021²) to determine their condition and ecological importance.
- 1.4 This survey work enables the accurate completion of Natural England's (NE) latest BNG metric (The Biodiversity Metric 3.1 Auditing and accounting for Biodiversity Calculator Tool, 2022). The condition assessments detailed below for the habitats pre and post construction are taken from the Condition Assessment Sheets (Excel format), 2022².

¹ Available online at: <https://ukhab.org/>

² Available online at: <http://publications.naturalengland.org.uk/publication/6049804846366720>



Existing Baseline

Cereal crops

- 1.5 The majority of the site comprises a cereal crop field in rotation. This habitat is of low distinctiveness and is not allocated a condition.

Ruderal/Ephemeral

- 1.6 There are some small and isolated examples of tall ruderal vegetation present in the marginal habitat of the site. This habitat is of low distinctiveness but passes 3 of the criteria associated with 'sparsely vegetated land', and is therefore of moderate condition.

Modified grassland

- 1.7 Around the edge of the site, in between the arable land and hedgerow boundaries, there is a margin of improved grassland. The grassland comprises a generally short sward and is subject to disturbance where it intersects with a footpath on the south, west, and north boundaries of the site. The margins of grassland surrounding the ditches comprises semi-improved grassland, is of a taller sward (c. 50cm).
- 1.8 These areas of grassland are captured as being of poor (improved) and moderate (semi-improved) conditions respectively. They are both of low distinctiveness.

Mixed scrub

- 1.9 Scrub is present along the peripheral areas of the site, mostly in the southwest but also within the central boundaries associated with the ditches. This habitat is of medium distinctiveness and passes 3 of the criteria for 'scrub', and is therefore of moderate condition.

Hedgerows

- 1.10 The site is surrounded by hedgerows on every boundary, subject to varying levels of management and with a range of species present. The majority of the hedgerows on site are species-rich (containing 5 or more native woody species). The following BNG defined hedgerow habitats are present on site:
- Native Species Rich Hedgerow (medium distinctiveness);
 - Native Species Rich Hedgerow with Trees (high distinctiveness);
 - Native Hedgerow (low distinctiveness).
- 1.11 All hedgerows on site met the criteria for moderate condition.



Habitat Creation

1.12 The habitats and hedgerows that will be present on site post-development will comprise;

- Developed land; sealed surface (c. 3.718ha), no condition applied;
- Sustainable urban drainage feature (c. 0.189ha), managed to moderate condition;
- Modified grassland (c. 0.232ha), managed to moderate condition;
- Other neutral grassland (c. 2.386ha), managed to moderate condition;
- Vegetated garden (c. 0.794ha), no condition applied;
- Mixed scrub (c. 0.096ha), managed to moderate condition;
- Native Species Rich Hedgerow with trees (c. 250m), managed to moderate condition.

BNG Calculator results

1.13 Overall, the development will deliver a net gain of 20.74% in habitat units (3.89 units), and a 10.9% net gain in hedgerow units (1.26 units). This is based on the loss of predominantly arable land and a minor removal of hedgerow, replaced by the proposed planting areas of grassland, mixed scrub, and SuDS features.

The contents of this report are valid at the time of writing. Tyler Grange shall not be liable for any use of this report other than for the purposes for which it was produced. Owing to the dynamic nature of ecological, landscape, and arboricultural resources, if more than twelve months have elapsed since the date of this report, further advice must be taken before you rely on the contents of this report. Notwithstanding any provision of the Tyler Grange Group Ltd Terms & Conditions, Tyler Grange Group Ltd shall not be liable for any losses (howsoever incurred) arising as a result of reliance by the client or any third party on this report more than 12 months after the date of this report.

Plans:

Plan 1: 14764/P01 Habitat Features Plan

Plan 2: 14764/P02 Bird Survey Plan_v1

Plan 3: 14764/P03 Bird Survey Plan_v2

Plan 4: 14764/P04 Bird Survey Plan_v3

Plan 5: 14764/P05 Reptile Survey Plan

Plan 6: 14764/P06 Bat Survey Plan

Plan 7: 14764/P07 Pond Plan





Legend

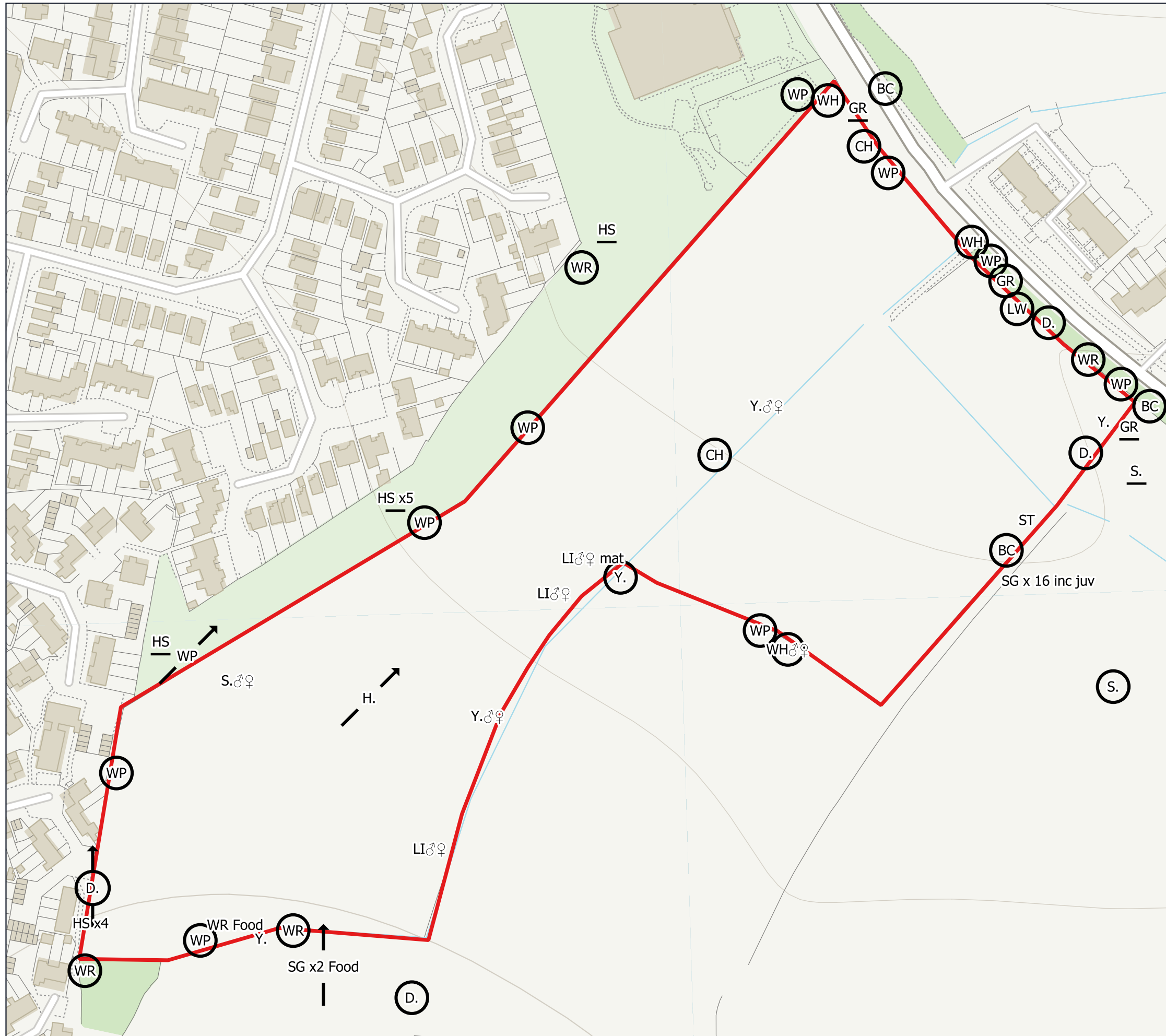
-  J1.1 - Cultivated/disturbed land - arable
-  C3.1 - Other tall herb and fern - ruderal
-  B4 - Improved grassland
-  B2.2 - Neutral grassland - semi-improved
-  A2.1 - Scrub - dense/continuous
-  Ditches
- Hedgerows**
-  Species-poor Hedgerow
-  Species-rich Hedgerow
-  Species-rich Hedgerow with Trees
- Trees with bat roost potential**
-  High
-  Mod
-  Low



Project	Land South of Saffron Walden
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	14764/P01
Date	November 2022
Checked	HDBJ/AG



Marsden Estate, Rendcomb, Cirencester, GL7 7EX



Legend

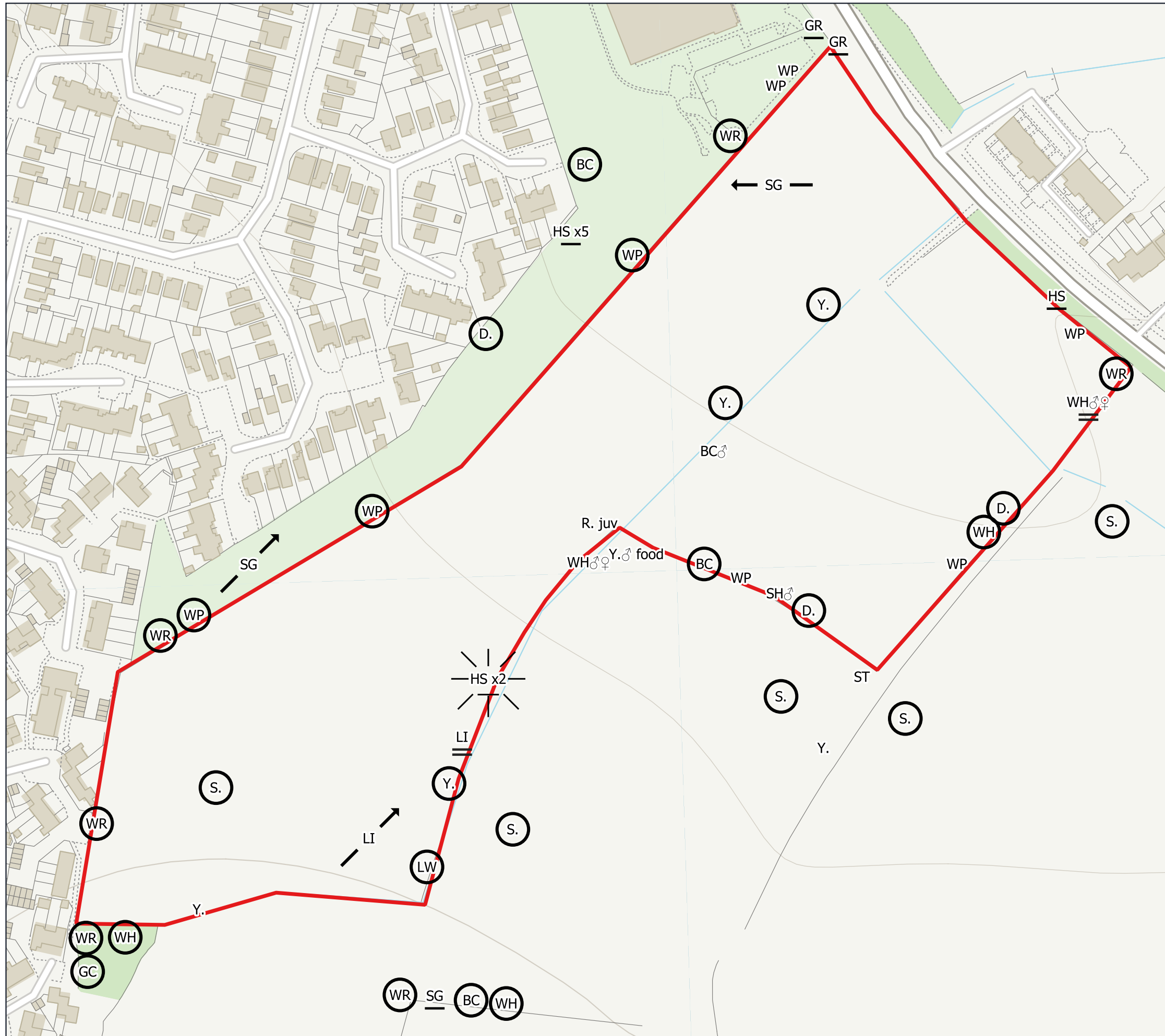
- BC Blackcap
- CH Chaffinch
- D. Dunnock
- GR Greenfinch
- H. Grey heron
- HS House sparrow
- LI Linnet
- LW Lesser Whitethroat
- S. Skylark
- SG Starling
- ST Song thrush
- WH Whitethroat
- WP Wood pigeon
- WR Wren
- Y. Yellowhammer



Project	Land South of Saffron Walden
Drawing Title	Bird Survey Plan v1
Scale	As Shown (Approximate)
Drawing No.	14764/P02
Date	November 2022
Checked	HDBJ/AG



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Legend

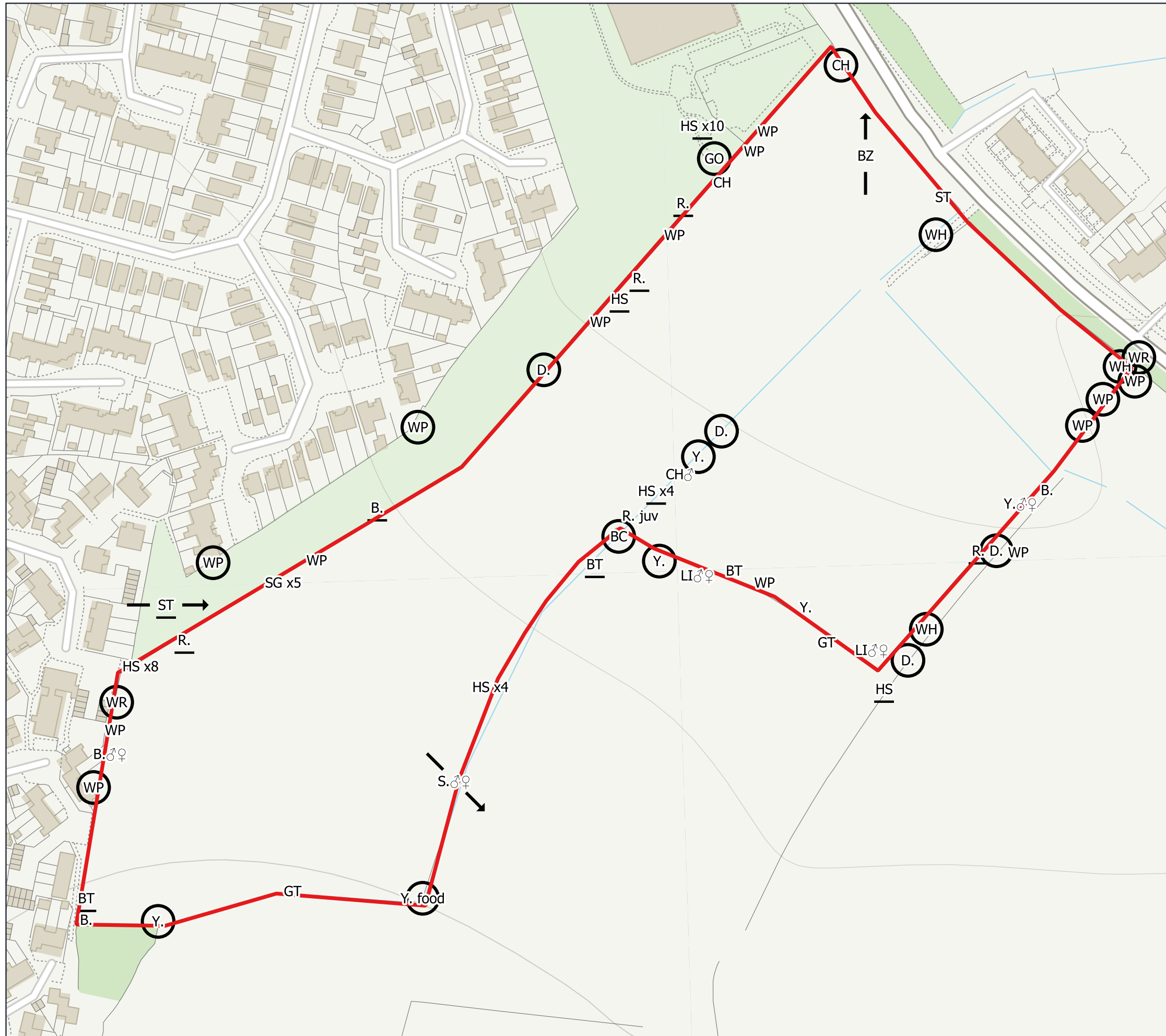
- BC Blackcap
- D. Dunnock
- GC Goldcrest
- GR Greenfinch
- HS House sparrow
- LI Linnet
- LW Lesser whitethroat
- R. Robin
- S. Skylark
- SG Starling
- SH Sparrowhawk
- ST Song thrush
- WH Whitethroat
- WP Wood pigeon
- WR Wren
- Y. Yellowhammer



Project	Land South of Saffron Walden
Drawing Title	Bird Survey Plan v2
Scale	As Shown (Approximate)
Drawing No.	14764/P03
Date	November 2022
Checked	HDBJ/AG



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Legend

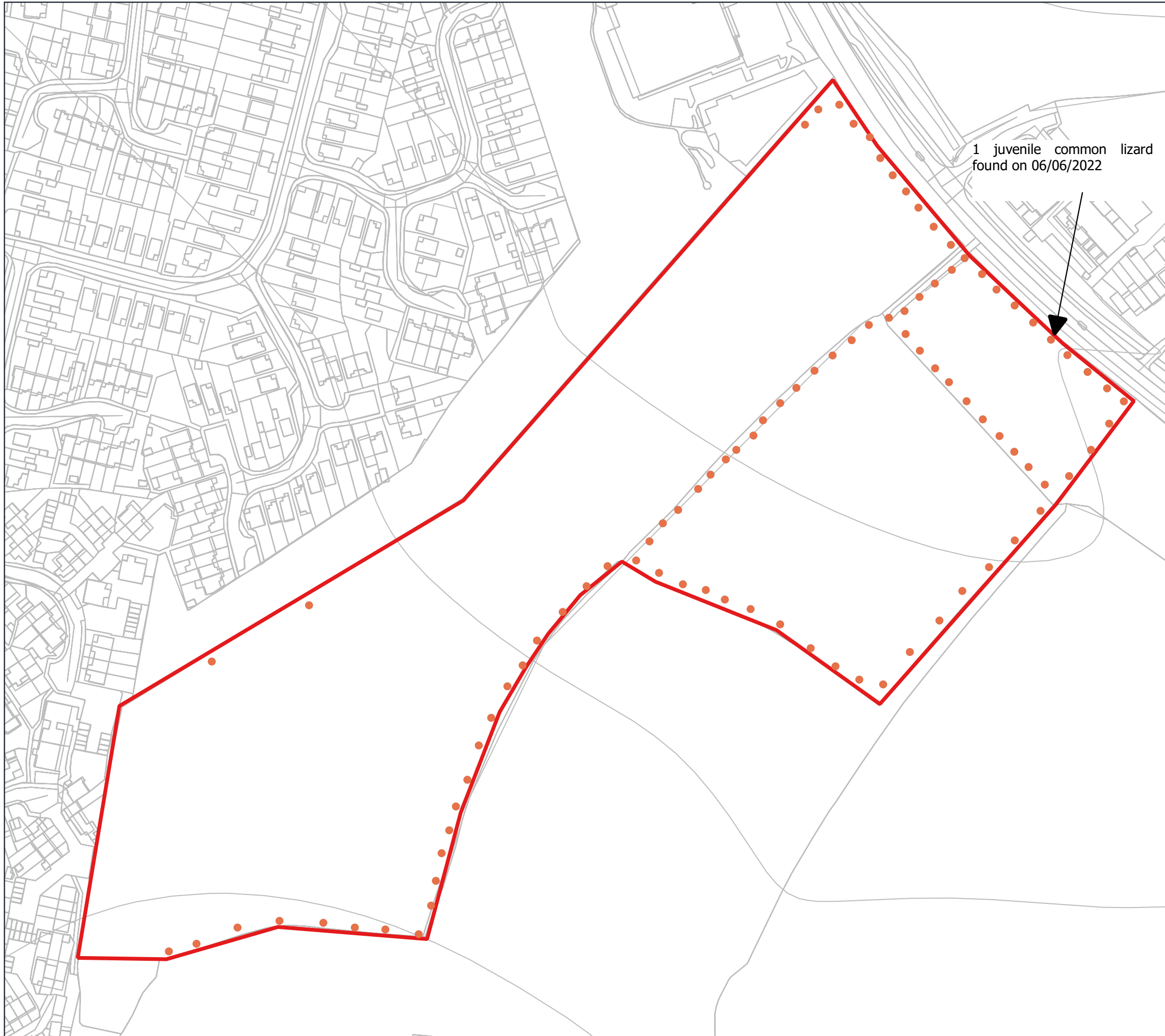
- B. Blackbird
- BC Blackcap
- BT Blue tit
- BZ Buzzard
- CH Chaffinch
- D. Dunnock
- GO Goldfinch
- GT Great tit
- HS House sparrow
- Li Linnet
- R. Robin
- S. Skylark
- SG Starling
- ST Song thrush
- WH Whitethroat
- WP Wood pigeon
- WR Wren
- Y. Yellowhammer



Project	Land South of Saffron Walden
Drawing Title	Bird Survey Plan v3
Scale	As Shown (Approximate)
Drawing No.	14764/P04
Date	November 2022
Checked	HDBJ/AG



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Legend

- Reptile mats



Project	Land South of Saffron Walden
Drawing Title	Reptile Survey Plan
Scale	As Shown (Approximate)
Drawing No.	14764/P05
Date	November 2022
Checked	HDBJ/AG



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Location 2 -

- common pipistrelle
- soprano pipistrelle
- brown long-eared
- myotis sp.
- nyctalus sp.
- serotine (possible)
- barbastelle

Location 1 -

- common pipistrelle
- soprano pipistrelle
- myotis sp.
- nyctalus sp.
- serotine (possible)
- barbastelle

Legend

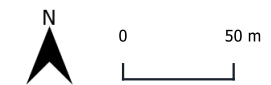
-  Site Boundary
-  Static locations

Activity levels recorded during manned transects:

Low



Note: This plan includes a heat map of bat activity recorded during the manned transect surveys. Separately to this, the two locations where static detectors were deployed are shown. The species recorded at each location are presented in text boxes.






Project	Land South of Saffron Walden
Drawing Title	Bat Survey Plan
Scale	As Shown (Approximate)
Drawing No.	14764/P06
Date	November 2022
Checked	HDBJ/AG



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Legend

-  Site boundary
-  500m buffer from the site boundary
-  Ponds identified from mapping



Project	Land South of Saffron Walden
Drawing Title	Pond plan
Scale	As Shown (Approximate)
Drawing No.	14764/P07
Date	November 2022
Checked	HDBJ/AG



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