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Ecological Surveys • Habitat Management • Arboricultural Surveys • Vegetation Clearance

Biodiversity Plan (BP)

**Barkway, Church Lane, Langham
[NGR:TL380355]**

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DOCUMENT CONTROL SHEET

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002	Amendments relating to Great Crested Newt	Bryan Tan MBiolSci	Steve Parnwell BA (Hons) MCIEEM FLS FRSA	Steve Parnwell BA (Hons) MCIEEM FLS FRSA	16/01/2026

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1.0 Introduction

1.1. Purpose of Report

Greenwillows Associates Ltd. has been commissioned to provide a Biodiversity Plan (BP), to comply with Condition 8 of the planning permission pertaining to a new development at Langham, Church Lane, Barkway, Hertfordshire, SG8 8EJ. The purpose of the BP is to detail how biodiversity will be incorporated within the development scheme to achieve net gain. The BP will provide enhancement for legally protected and priority species.

1.2. Development Proposals

Planning permission was granted by North Hertfordshire District Council on 20th December 2024 for the proposed 'Erection of one detached 5-bed dwelling, garage and associated parking, access and amenity land'. (Ref: 24/00386/FP)

Ecological surveys previously carried out include:

- Land to the west of Langham, Church Road, Barkway, Hertfordshire Preliminary Ecological Appraisal Produced for Barley Properties Ltd By Applied Ecology Ltd. 2019.
- Re: Great Crested Newt eDNA presence/absence survey results – Land West of Langham, Barkway (Applied Ecology - By Email, 2023).
- Great Crested Newt Mitigation Options for Proposed Development, Land West of Langham, Church Lane, Barkway, Hertfordshire, SG8 8EG (Greenwillows Associates Ltd. 2025).

This report should be read in conjunction with the findings of the above and the recommendations set out in the above still stand.

Most recent eDNA surveys in May 2025 identified the two onsite ponds 1 and 2 as Negative for presence of great crested newt. A non-licensed installation of a temporary amphibian exclusion fencing will be undertaken following the Precautionary Method of Working Statement (Greenwillows Associates Ltd. 2025) to ensure the works will be conducted with minimal ecological impact.

1.3. Condition 8

Prior to commencement of the development (including ground works and vegetation clearance), a Biodiversity Plan shall be prepared, detailing how biodiversity will be incorporated within the development scheme to achieve net gain. The plan shall include details and location of replacement tree planting and enhancement measures, such as installation of habitat boxes or other structures for protected species, and pond management for biodiversity. The plan shall be submitted to the LPA for written approval and the development shall be carried out in accordance with the approved plan unless otherwise agreed in writing with the LPA.

Reason: To demonstrate the expectations of NPPF in achieving overall net gain for biodiversity have been met in accordance with national and local policies.

1.4. Purpose of Plan and Scope

The purpose of the BP is to address Planning Condition 8, setting out measures to provide enhancement and protection for legally protected flora and fauna that could otherwise be adversely affected by the development, and to deliver a net enhancement for biodiversity.

The BP sets out how the nature conservation value of the site will be safeguarded and how habitats will be enhanced and maintained. It covers the following:

- Aims and Objectives;
- Mitigation and Enhancement Measures, and;
- Implementation Schedule.

2.0 Aims and Objectives

2.1 Overview

The primary objective of the BP is to provide enhancement features to serve as resting and sheltering for notable and protected species.

The principal aims are as follows:

- To provide enhanced habitat for locally important species (including legally protected, priority and local BAP species).
- Positively comply with local, regional, and national wildlife policy.

The specific objectives are as follows:

- Encourage populations of notable and protected species including bats and birds that may encounter the site through provision of bird and bat boxes; and
- Provide a pond management and maintenance schedule to enhance the onsite waterbodies.

These objectives will be met by completing the Mitigation and Enhancement Measures detailed in Section 3.

3.0 Mitigation and Enhancement Measures

3.1 Boundary Trees / Hedgerow

Boundary Trees

All retained trees and shrubs will be protected from construction works in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition & Construction – Recommendations'.

Replacement Planting Schedule

As per the Arboricultural Impact Assessment (AIA) at Langham, Church Lane, Barkway, A.T. Coombes Associates Ltd (2023), *Two B category trees (T28, T34), eight C category trees (T20, T23, T24, T26, T30, T32, T33, T35) and two C category groups (G2 and G5) will be removed for development purposes.*

The AIA stipulated the following replacement planting:

In order to mitigate the loss of the above trees a minimum of twelve new heavy standard rootballed or containerised trees (12 to 14cm stem girth) will be planted. The species, selected to be in keeping with the development, will be as follows:

- 3 crab apple – *Malus* 'John Downie'
- 3 crab apple – *Malus* 'Golden Hornet'
- 2 field maple – *Acer campestre*
- 2 ornamental pear – *Pyrus calleryana* 'Chanticleer'
- 2 hawthorn – *Crataegus monogyna* 'Alboplana'

The AIA provided the following planting prescriptions:

The trees will be securely pit planted in holes which are excavated to at least 75mm wider in all dimensions than the rootball of the tree, planted at a depth no deeper than the height of the root ball / root collar and back-filled with soil excavated from the tree pit. Each tree will be supported with a treated softwood stake inserted at a 45-degree angle to the ground, avoiding the rootball. Adjustable rubber ties will secure the trees to the stakes. Spiral guards (60cm x 38mm) will be wrapped around the lower stem to prevent mammal damage. Mulch will be placed around each tree at depth of 50-100mm and at a diameter of 1m to reduce weed growth.

The trees will be maintained for a 5-year period. Work will include keeping a circular area with a 0.5m radius centred on the stem of the trees free from weed growth using either herbicide or mulch, checking supports and guards and replacing any failures during the period with trees of the same species and quality.

In April 2025 emergency works to T22 (Hawthorn – felled and removed) and T18 (Willow – major limb removed) were undertaken and in line with the response sent by North Herts Council, replacement planting of a 'native' tree was stipulated. It would, therefore, be prudent to select a species from the list above provided in the 2023 AIA.

3.2 Retention of Dark Corridor to Site Boundary

All lighting proposed for the development, both during construction and post-completion, will be installed in accordance with the Bat Conservation Trust and ILP (Institute of Lighting Professionals) - Guidance Note 08/23: Bats and Artificial Lighting At Night. Particular attention should be made to avoid lighting of key habitats which are essential for the function and stability of bat populations both onsite and neighbouring the development site, for example all boundary trees. Whilst supporting habitats should also be avoided, appropriate mitigation should be applied where avoidance is not possible.

Any new lighting impacts associated with the proposed development (both during and post-construction) should be minimised using warm white light sources (2700Kelvin or lower) to reduce the blue light component.

Lighting types to be avoided include any blue-white light sources, metal halide, compact fluorescent sources and any form of up-lighting, which lights above the horizontal plane illuminating foraging habitat. The use of bollard or low-level downward-directional luminaires is strongly discouraged. Only if all other options have been explored, accessories such as baffles, hoods and louvres can be used to reduce light spill and direct light to where it is needed; however, this should not be solely relied upon. Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.

3.3 Provision of Bat Roost Boxes

Two non-integrated General Purpose Bat Boxes will be installed on two retained trees within the working footprint as site enhancement providing a suitable roosting site for a range of crevice-dwelling bat species. An example of a non-integrated bat box is provided in Appendix Three.

Method

Non-integrated options may be installed on trees close to linear features such as hedgerows, at a height of 4-6m above ground level, with all lighting angled away to avoid direct illumination of the box. Branches (if present) will be cleared to provide an unrestricted flight path to and from the box.

The locations for bat box placement are provided in Appendix Two and are in line with the above instructions. See Appendix Three for example of box design. Please note that, due to current difficulties with the supply chain, the exact models which will be installed cannot be guaranteed at this time.

3.3 Birds

Mitigation/Enhancement

Timing of Clearance Works

Any trees or shrubs that will be removed to enable the development will be cleared outside the bird nesting season or, if this should prove impracticable, clearance will be preceded by a precautionary check survey for active nests, undertaken by a suitably experienced ecologist. Any active nests found shall be cordoned off and retained undisturbed until the nest(s) cease to be in active use.

Retained hedgerows/trees will not be impacted by the ongoing works or thereafter.

Provision of Bird Nesting Boxes

To enhance the site for a range of species, it is recommended that two hole-entrance nest boxes (one with 28mm diameter entrance and one with a 32mm entrance) are installed on retained trees. The boxes should be constructed of woodcrete or a similarly durable material (i.e. not timber).

Method

Nest boxes will be installed at a height of 2m or above, facing between north and east or where they are not receiving full day sunlight. Both boxes will be located such that there is a clear flight path to them. They will also be situated in a location where they cannot be accessed by domestic animals or easily interfered with by humans.

The proposed bird box placement is shown in Appendix Two and is in line with the above recommendations. See Appendix Three for example of box design. As with the bat boxes, due to current difficulties with the supply chain, the exact models which will be installed cannot be guaranteed at this time. However, all boxes will be constructed of woodcrete or a similarly durable material.

3.4 Pond Management

Although the eDNA surveys for ponds 1 and 2 returned negative for great crested newt presence, enhancements to both Ponds 1 & 2 would take the form of a planting schedule in order to improve the habitat for great crested newts and widespread amphibians, through the planting of native aquatic/emergent vegetation to provide alternative shelter/egg laying opportunities. Aquatic plants should be sourced from a reputable supplier, and at least 15 plants should be selected from the list in Table One below; it is recommended that these comprise both aquatic and marginal species, with aquatic species including a mixture of submerged, floating leaved and emergent species. It is important to ensure that no non-native plant species are accidentally introduced to the ponds. Planting should take place from mid-spring through to early summer when the water is warming up.

Table One: Aquatic and Marginal Plant Species as Recommended by Froglife (2001)

Common name	Scientific name
Soft rush (M)	<i>Juncus effusus</i>
Meadowsweet (M)	<i>Filipendula ulmaria</i>
Marsh cinquefoil (M)	<i>Potentilla palustris</i>
Purple loosestrife (M)	<i>Lythrum salicaria</i>
Marsh marigold (M)	<i>Caltha palustris</i>
Yellow flag iris (A)	<i>Iris pseudacorus</i>
Water mint (A)	<i>Mentha aquatica</i>
Brooklime (A)	<i>Veronica beccabunga</i>
Water plantain (A)	<i>Alisma plantago-aquatica</i>
Water forget-me-not (A)	<i>Myosotis scorpioides</i>
Mare's-tail (A)	<i>Hippuris vulgaris</i>
Greater spearwort (A)	<i>Ranunculus lingua</i>
Arrowhead (A)	<i>Sagittaria sagittifolia</i>
Amphibious bistort (A)	<i>Polygonum amphibium</i>
Water crowfoot (A)	<i>Ranunculus aquatilis</i>
Spiked water-milfoil (A)	<i>Myriophyllum spicatum</i>
Common water starwort (A)	<i>Callitriche stagnalis</i>
Fennel-like pondweed (A)	<i>Potamogeton pectinatus</i>
Common hornwort (A)	<i>Ceratophyllum demersum</i>
Frogbit (A)	<i>Hydrocharis morsus-ranae</i>
Curled pondweed (A)	<i>Potamogeton crispus</i>
White waterlily (A)	<i>Nymphaea alba</i>
Water soldier (A)	<i>Stratiotes aloides</i>
Willow moss (A)	<i>Fontinalis antipyretica</i>
Cuckoo flower or lady's smock (M)	<i>Cardamine pratensis</i>
Ragged robin (M)	<i>Lychnis flos-cuculi</i>

A=Aquatic; M=Marginal

4.0 Implementation and Ongoing Management

Table Two below sets out an implementation schedule for the timing of management prescriptions in relation to the construction period (prior/during and post).

Table Two: Installation and Management

Habitat Feature	Management / Maintenance Instructions Continuous	Timing
Bats		
Bat Box Installation	Following installation and once bats have moved in, a bat box can only be opened, moved or disturbed by someone with a Natural England bat survey licence. This is the case all year round, even if the bats are only in residence for part of the year. If the box needs to be opened to check it, then this must be undertaken by a suitably licensed bat worker.	Bat boxes installed during construction phase.
Lighting	Any additional/replacement lighting after works are completed will comply with the requirements set out in 3.1.1 and avoid being placed near/illuminating trees, hedgerows, or bat/bird boxes (buildings/trees).	Ongoing.
Birds		
Bird Box Installation	Non-integrated bird boxes may, if desired, be maintained annually by removing old nests/nesting materials in autumn (Sept onwards) once birds have stopped using them. Remove accumulated nesting material. Use boiling water to kill any remaining parasites and let the box dry out thoroughly before replacing the lid. (Insecticides and flea powders must not be used).	Bird boxes installed during construction phase. Removal of old nests & cleaning – annually in winter (optional for sparrow terrace and tree-mounted boxes; not required for swift boxes).
Replacement Planting		
Tree Planting	The trees will be securely pit planted in holes which are excavated to at least 75mm wider in all dimensions than the rootball of the tree, planted at a depth no deeper than the height of the root ball / root collar and back-filled with soil excavated from the tree pit. Each tree will be supported with a	During construction phase but between November and March, avoiding times when the ground is frozen or

	treated softwood stake inserted at a 45-degree angle to the ground, avoiding the rootball. Adjustable rubber ties will secure the trees to the stakes. Spiral guards (60cm x 38mm) will be wrapped around the lower stem to prevent mammal damage. Mulch will be placed around each tree at depth of 50-100mm and at a diameter of 1m to reduce weed growth. Trees will be maintained for a 5-year period as per section 3.2.	waterlogged.
Pond		
Pond Management	Aquatic and marginal planting for Pond 1 & 2.	Mid-spring through to early summer

5.0 Conclusions

Measures are set out to incorporate biodiversity into the development plan and to achieve an overall net gain, in the form of bat and bird box provision, as well as a planting schedule to improve habitat for newts and other species within the ponds. It is considered that these measures will provide enhancement for biodiversity within the site and that they are proportionate to the scale of the development.

6.0 References

Applied Ecology (2019) Land to the west of Langham, Church Road, Barkway, Hertfordshire. Preliminary Ecological Appraisal.

Applied Ecology (2023) Re: Great Crested Newt eDNA presence/absence survey results – Land West of Langham, Barkway. (By email).

Bat Conservation Trust and Institute for Lighting Professional (2023) Guidance Note 08/23: Bats and Artificial Lighting at Night. BCT London.

British Standards Institute (BSI) 2012 BS 5837 - Trees in Relation to Design, Demolition & Construction – Recommendations

British Standards Institute (BSI) (2013). BS42020 - Biodiversity Code of Practice for Planning and Development. BSI, London.

Greenwillows Associates Ltd. (2025) Great Crested Newt Mitigation Options for Proposed Development, Land West of Langham, Church Lane, Barkway, Hertfordshire, SG8 8EG

Greenwillows Associates Ltd. (2025) Precautionary Method of Working Statement (Ecology). Barkway, Church Lane, Langham

HMSO (1981) Wildlife and Countryside Act. HMSO, London.

HMSO (1994) Biodiversity The UK Action Plan. HMSO London. Available at:
<http://jncc.defra.gov.uk/ukbap>

HMSO (2000) Countryside and Rights of Way (CRoW) Act. HMSO, London.

HMSO (2006) Natural Environment and Rural Communities Act 2006. HMSO, London.

HMSO (2017) Conservation of Habitats and Species Regulations 2017. HMSO, London.

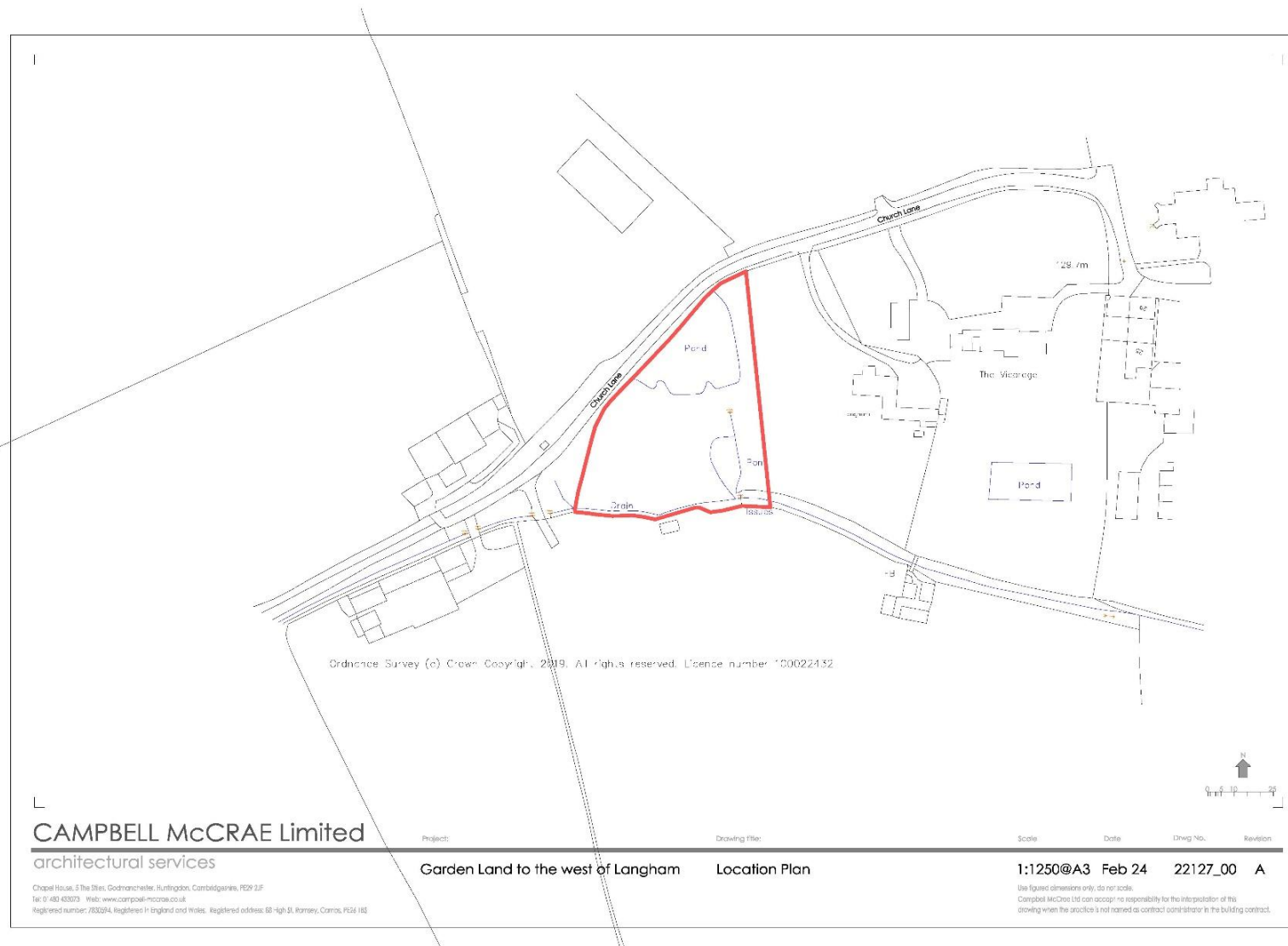
HMSO (2019) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. HMSO, London

HMSO (2021) Environment Act 2021. HMSO, London.

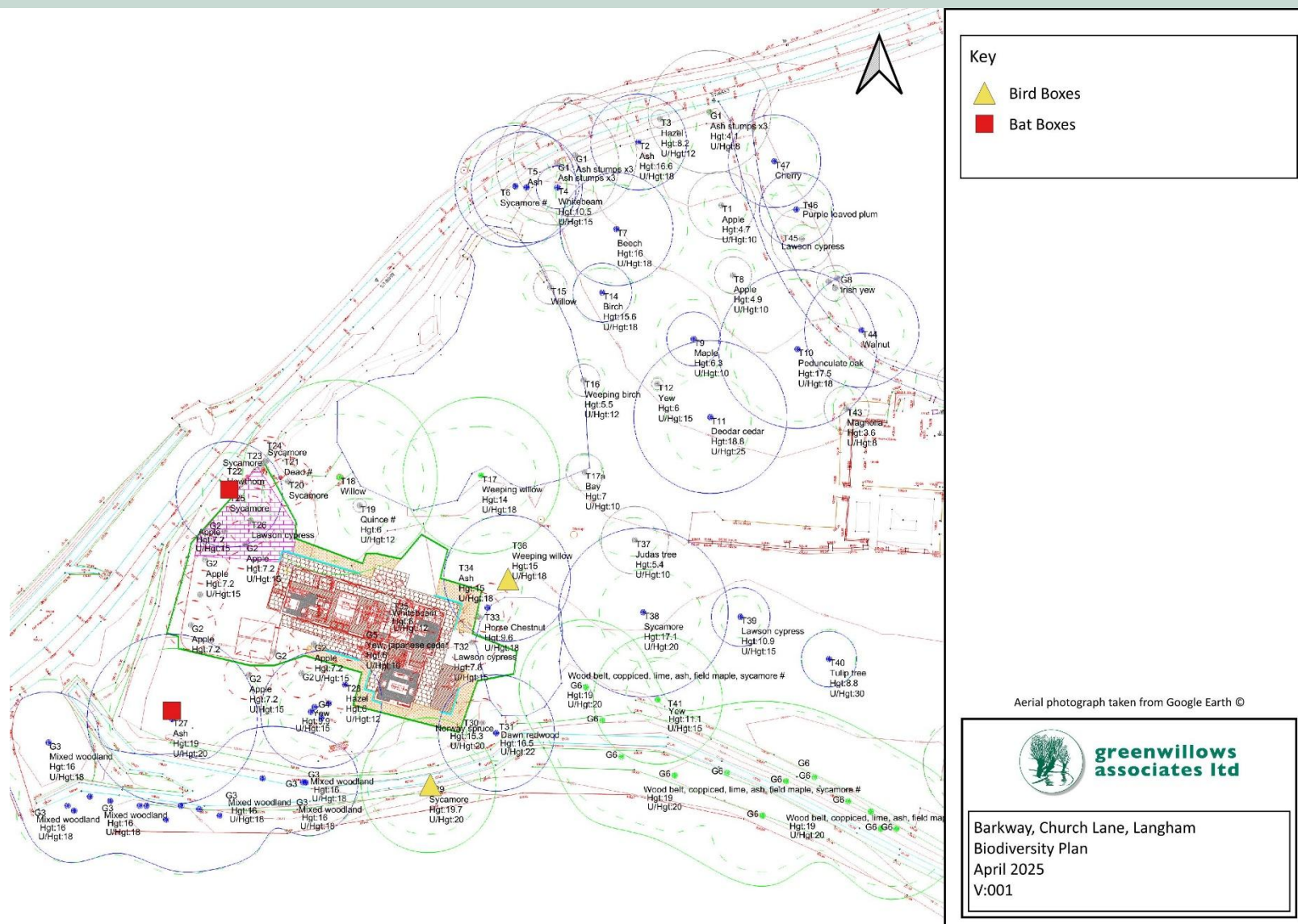
HMSO (2024). National Planning Policy Framework (NPPF), 2024. HSMO, London.

North Hertfordshire District Council (2024). Decision Notice.

Appendix One: Site Location Plan



Appendix Two: Client Plan with Biodiversity Enhancement Features



Appendix Three: Examples of Site Enhancements/Mitigation

Species	Specific Mitigation/Enhancement Examples	General Recommendations
Birds	<i>Vivara Pro Seville 32mm WoodStone Nest Box</i>  It is recommended that <u>two</u> Vivara Pro Seville 32mm WoodStone Nest Boxes are installed on retained trees within the working footprint as compensation/enhancement for this scheme.	Non-integrated bird boxes can be installed on retained trees within the working footprint. Boxes will be installed at a height of 2m or above, facing between north and east. The boxes will have a clear flight path to them so avoid any overhanging branches/materials that could block the box entrance.
Bats	<i>General Purpose Bat Box</i>  It is recommended that <u>two</u> General Purpose Bat Boxes are installed on retained trees within the working footprint as site enhancement.	Non-integrated bat boxes can be installed on retained trees within the working footprint. The boxes will be installed at a height of 4-6m above ground level, with all lighting angled away to avoid direct illumination of the box. Branches (if present) will be cleared to provide an unrestricted flight path to and from the box.