

Technical Note – Ashton Keyes

Project No:	Report No.	Date	Revision
17204	R01	17 th November 2024	-
Author		Approved	
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Introduction

This Technical Note has been prepared by Tyler Grange Group Limited on behalf of Acorn Bioenergy Limited. This note summarises the results of an updated 'Extended' Phase 1 /UK Habs survey Daytime Bat Walkover (DBW) and Ground Level Tree Assessment (GLTA) survey undertaken on the site at Ashton Keyes in 2024.

Context

To support the proposed development an Ecology Environmental Statement (ES) Chapter was prepared by SLR Consulting Limited (Ltd)¹. The previous survey work undertaken in 2022 – 2023 by SLR Consulting Ltd identified the sites habitats as consisting of cereal crops, modified grassland, hedgerows, ditches and a single tree line. Further phase 2 ecological surveys were also undertaken consisting of bat emergence surveys of three trees, wintering and breeding bird surveys.

A revised scheme is being submitted reducing the massing and scale of the development, reducing the visual impact of the development and increasing the proposed landscaping (see **Appendix 1**). The revised scheme will not impact any additional ecological features than the previously submitted scheme and all the hedgerow along the northern, eastern and western boundaries are to be retained and enhanced as part of the proposed development

Purpose

Subsequently, Tyler Grange have been instructed to update the 'Extended' Phase 1/UK Habs survey data to confirm if the site has changed since the previous surveys in 2023 and confirm the validity of the conclusions drawn by previous ES Chapter, inline with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance² on the shelf life of ecological data and reports.

¹ SLR Consulting Limited (2023) Environmental Statement Chapter 5 Ecology.

² Chartered Institute of Ecology and Environmental Management (2019). Advice Note on the Lifespan of Ecological Report & Surveys. CIEEM, Winchester.



Methodology

Methodology for the 'Extended Phase 1/UK Habs surveys, GTLA and DBW are detailed in **Appendix 1** of this technical note.

Results – Habitats

The habitats that could be affected by the proposed development are summarised below the locations of habitats are shown on the **Habitat Features Plan 17204/P01**.

Grass/Clover Lay

The site consists predominantly of two fields composed of grass and clover lay. The lays are composed of perennial rye grass *Lolium perenne* with some white clover *Trifolium repens*. The field appeared to be recently seeded with the lay starting to sprout. Cereal crops were previously sown in both fields during the surveys in 2023.

Figure 1 – Field in the south of the site consisting of grass/clover lay.



Modified Grassland

Two small areas of modified grassland were present on-site, one adjacent to the eastern boundary next to the field access and one adjacent to the west boundary between two fields.

Both areas of grasslands] consisting of perennial rye grass, false oatgrass *Arrhenatherum elatius* and red fescue *Festuca rubra*. Several forbs are also present in the sward including stinging nettle *Urtica dioica*, cow parsley *Anthriscus sylvestris*, garlic mustard *Sisymbrium officinale*, red dead nettle *Lamium purpureum*, cleavers *Galium aparine*, shepherd's purse *Capsella bursa-pastoris* and creeping thistle *Cirsium arvense*.



Figure 2 – Small area of modified grassland along the east site boundary.



Hedgerow (Priority Habitat)

Four hedgerows are present on-site, details of species composition and structure below. For ease the hedgerow numbers have been kept the same as previous.

- **Hedgerow H1** – A hawthorn *Crataegus monogyna* dominated defunct hedgerow, along the west site boundary. The hedgerow is defunct with large caps throughout from the canopy down to the base. Several other species present in the hedgerow include common ivy *Hedera helix* and bramble *Rubus fruticosus*. Several ash *Fraxinus excelsior* trees both mature and saplings were also present. The understory mostly consists of bare earth with some small areas of ruderal vegetation dominated by herb robert *Geranium robertianum* and stinging nettle *Urtica dioica*.
- **Hedgerow H2** – A hedgerow dominated by hawthorn and blackthorn *Prunus spinosa* running along the north site boundary. Frequent self-seeded ash trees were also present. The hedgerow was defunct with large caps in both the canopy and base. Other species present in the hedgerow included bramble and dog rose *Rosa canina*. The understorey consisted of bare earth with garlic mustard, false oat grass, red fescue and stinging nettle.
- **Hedgerow H3** – A hedgerow composed predominantly of blackthorn, associated with a dry ditch and along the eastern site boundary. A dry drainage ditch runs along the east side of the hedgerow. Several other species were present which hawthorn, bramble, dogwood *Cornus sanguinea*, dog rose and field maple *Acer campestre*. The understorey comprised predominantly common ivy with other fobs species such as stinging nettle, cleavers and herb robert present in low numbers.
- **Hedgerow H4** – A hawthorn dominated defunct hedgerow running thorough the centre of the site. Several semi-mature ash trees were also present in the canopy. The hedgerow is not stock proof with several gaps from canopy to base along the hedgerow. A dry draining ditch is also present along the length of the hedgerow. Other species present within the hedgerow included crab apple *Malus sylvestris*, bramble, field maple, blackthorn, dog rose and common ivy. The dry ditch and understorey have a similar



composition composed primarily of perennial rye grass and false oak, with some forbs such as garlic mustard, stinging nettle, cleavers and cow parsley

Figure 3 – Native species rich hedgerow (H4) running through the centre of the site.



Dry Ditches

Two dry drainage ditches are present, they are as follows:

- **Ditch D1** – A field drainage ditch running through the centre of the site through hedgerow H4. At the time of the survey; and
- **Ditch D2** – A roadside drainage ditch along the east site boundary adjacent to hedgerow H3. Ditch was dry at the time of the survey and had recently been mown along with the roadside verge.



Figure 4 – Ditch D2 adjacent to hedgerow H3.



Results – Ground Level Tree Assessment (GLTA) and Daytime Bat Walkover (DBW)

GLTA

An updated GLTA was undertaken on all the trees that could be impacted by the proposed development. The majority of trees previously surveyed were ash trees all suffering from ash dieback *Hymenoscyphus fraxineus* which causes limbs of trees to become brittle and snap.

No additional Potential Roost Features (PRF's) were found on any of the trees to be removed as part of the proposed development.

Two-day roosts were identified in ash trees T1 located just off-site. T1 contained a common pipistrelle *Pipistrellus pipistrellus* day roost a soprano pipistrelle *Pipistrellus pygmaeus* day roost. A second ash tree T2 had extensive ivy cover which could be used by roosting bats. Both trees were considered to still contain the features that could support roosting bats. However, both trees still suffered from ash dieback and had several broken and cracked limbs. As the trees still have the same features as previous no additional surveys are required.

It should be noted that although update surveys are not required to inform the decision of the application, update bat surveys will be required post planning in order to obtain a mitigation licence from Natural England to remove the trees.



Daytime Bat Walkover

The updated daytime bat walkover assessed the site as low potential to support foraging and commuting bats. The site contained only small areas of suitable foraging habitat for bats as it was dominated primarily of arable fields. The hedgerows through the centre of the site and around the site boundaries do however offer some potential foraging and commuting bats through the landscape.

The previously submitted ES Chapter by SLR Consulting assessed the site for foraging and commuting bats and determine it to be likely of local importance only. As all hedgerows aside from hedgerow H4 are to be retained and enhanced as part of the proposed development and a sensitive lighting strategy implemented at the operational phase, no further surveys were not deemed necessary as they are disproportionate to the impact from the proposed development.

As such, it can be concluded that the proposed would not results in significant impacts to bat activity across the site and would results in an enhancement for the local bat population.



Conclusion

Based in the results of the updated 'Extended' Phase 1/UK Habs, GLTA and DBW surveys, it is concluded that that site has not significantly changed since the previous survey work in 2023. CIEEM guidance on the shelf life of ecological survey data states that over 12 months old can be considered valid if validated with a survey and there have been not significant changes in the baseline.

As such, considering the baseline habitat recorded in 2023 are the same as those recorded in 2024, the conclusions and mitigation strategy informed by the previous survey work are considered valid for the purpose of considering the proposed development and no further update work is required.



Appendix 1 – Methodology

'Extended' Phase 1/UK Habs Surveys

An 'extended' Phase 1 survey was carried out on 11th November 2024 by Christian Cairns MSc BSc (Hons), a suitably experienced ecologist and qualifying member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase 1 habitat survey³ and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group⁴.

Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.

Ground Level Tree Assessment (GLTA)

A GLTA was undertaken on all trees within the site boundary. The assessment was undertaken on 11th November 2024 by Christian Cairns MSc BSc (Hons), a suitably experienced ecologist and level 1 bat licence holder (Licence ref: 2023-11629-CL17-BAT) alongside the UK Habs survey. All trees were inspected from the ground using binoculars. PRFs of interest include are detailed in **Table A1.1** below.

Table A1.1: PRF Types that can be Exploited by Bats and How they Form - adapted from Collins, 2023⁵

PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
woodpecker	lightning strikes	fluting
holes	hazard beams	ivy
squirrel holes	subsidence	
knot holes	cracks	
pruning cuts	shearing cracks	
tear outs	transverse snaps	

³ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

⁴ UKHab Ltd. (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

⁵ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6



wounds	welds	
cankers	lifting bark	
compression	desiccation	
forks	fissures	
butt rots	frost cracks	

The potential of trees to support roosting bats was assessed using the criteria shown in **Table A1.2** below.

Table A1.2: Assessment of Tree Suitability Criteria - adapted from Collins, 2023.

Roost Suitability	Description of Roosting Habitat
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

The GLTA found that there was one PRF on site (location shown on the Habitat Features and Preliminary Bat Roost Assessment Plan **16775/P01**), which was assessed at the time as FAR. Whilst the only PRF on site, it was nevertheless labelled PRF1. Whilst the PRF was at ground level, it could not be internally inspected at that time as the surveyor was not bat licenced.

Day-time Bat Walkover (DBW)

A DBW was undertaken on all habitats within and adjacent to the site boundary. The assessment was undertaken Christian Cairns MSc BSc (Hons) alongside the UKHabs survey. The DBW assessed habitats on-site for the likelihood to be used by foraging and commuting bats as detailed in **Table A1.3** below. This combined with desk study records of local bats and bat roosts, and potential for roosting bats on-site is used to determine suitability of the site for bat activity.



Table A1.3: Flight Path and Foraging Habits Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.



Appendix 2 – Proposed Development Plan



Site Layout for Planning
1 : 1250

Safety, Health and Environmental Information

Significant risks relating to the works of which this design relates are identified below:

Identified significant risks:

This drawing is to be used only for the purpose of the issue it was intended for.

For information relating to end use, maintenance, demolition, see Health & Safety files.

It is assumed that works will be undertaken by a competent Contractor to an approved method statement.

Legend / Notes

0m25m50m75m100m125m

VISUAL SCALE 1:1250 @ A1

A	12/08/24	Issued for Planning	ASB	JC
Rev	Date	Description	DR	CH
Status			Suitability	
Issued for Planning				

Contractor(s)

Project

ASHTON KEYNES AD Plant

Drawing Title

Site Layout for Planning

Designed	J. Collins	Signed	Date	12/08/24
Drawn	A. Bruce	Signed	Date	12/08/24
Checked	L. Beaton	Signed	Date	12/08/24
Approved	J. Collins	Signed	Date	12/08/24

Scale(s)

1 : 1250 @A1

ELR & Mileage

Alternative Reference

Sheet

of

Revision

Drawing Number

29419

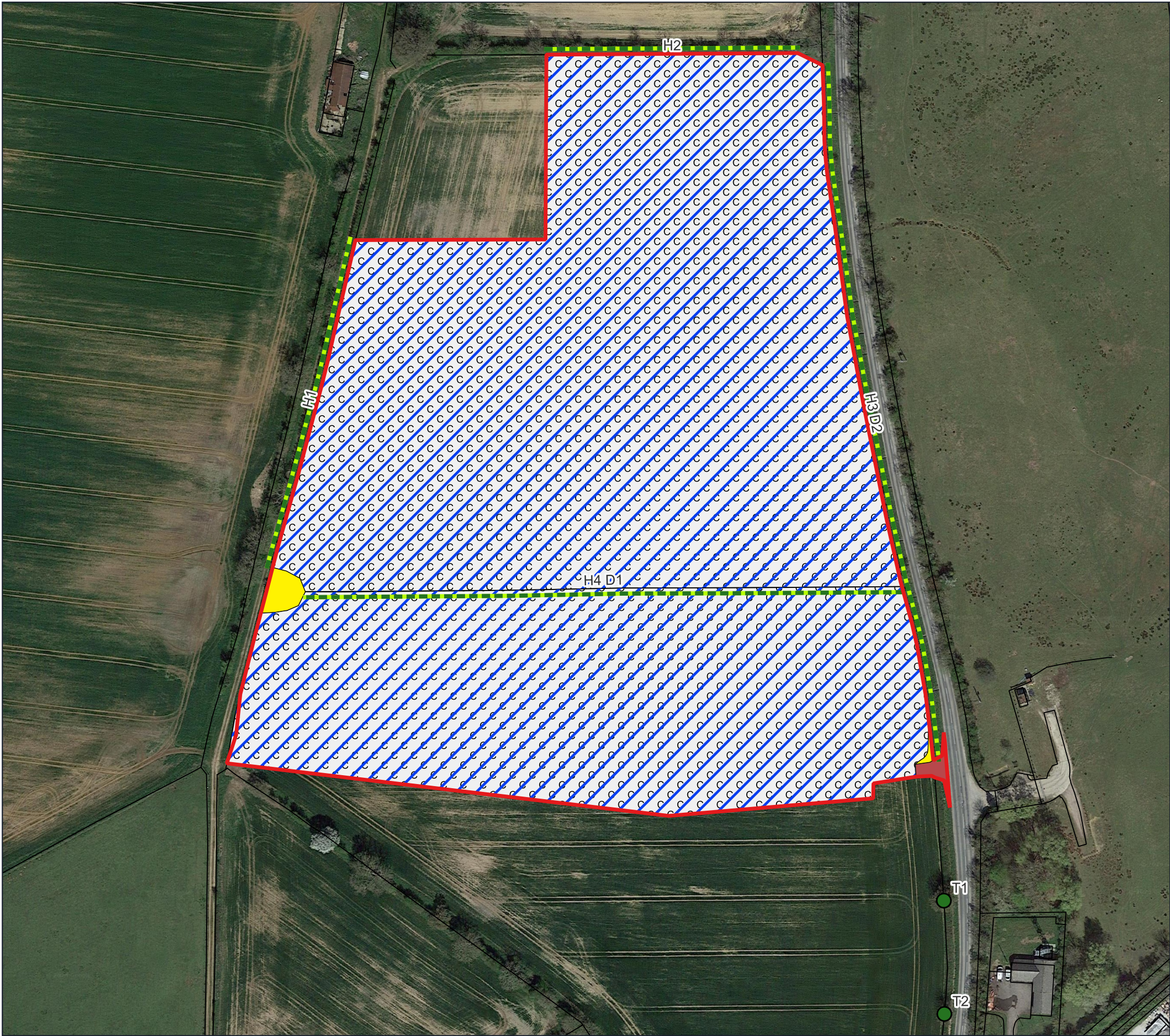
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Sheet Size A1 594 x 841



Appendix 3 – Habitat Features Plan



Legend

Boundaries

 Redline boundary

Baseline Habitats

 Hedgerow (priority habitat)

 Cropland - Temporary grass and clover leys

 Grassland - Modified grassland

 Urban - Bare ground

 Scattered Tree



Project	Ashton Keyes, Wiltshire
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	17204/P01
Date	November 2024
Checked	CC/GS



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