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# Preliminary Ecological Appraisal

**Survey site**:

Gamford House, Gamford Lane, Rossett, Wrexham, LL12 0EW

**Client**:

Urban Developments

**Survey date**:

22nd January 2026

**Project:**

This report is prepared to inform a planning application with the Wrexham County Borough Council. The proposal is described as:
'The conversion and/or demolition of existing buildings to provision a residential development'

PEA survey methodology and legislation can be found in the Arbtech Supplement: **PEA Methodology and Legislation - 2024.**
PRA survey methodology and legislation can be found in the Arbtech Supplement: **PRA Methodology and Legislation - 2024.**
*The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.*

## Site Location and Context

The survey site is centred on National Grid Reference SJ 37805 57438 and has an area of approximately 1.25ha.

The site comprises one dwelling (B1), associated farm buildings (B2-B8), sealed surfaces, other neutral grassland, willow scrub, bramble scrub, sparsely vegetated land, scattered trees and a hedgerow, with a pond directly adjacent to the site within the ownership boundary. The site comprises freely draining, slightly acidic loamy soils, underlain by Salop Formation geology of mudstone, sandstone and conglomerate. Superficial deposits include Devensian till (diamicton) and river terrace sand and gravel. The hedgerow within the site extends into the local rural landscape. Aerial imagery shows the local landscape to comprise of agricultural land in all directions, with the village of Rossett to the west. Waterbodies and watercourses can be found nearby, including several ponds and the River Alyn ~600m south. The wider landscape comprises more extensive agricultural fields in all directions.

*Planning History*
Several previous ecological surveys have been carried out at this site and should be read in conjunction with this report, as detailed below:

- Preliminary Roost Assessment (TEP., 2015)
- Bat Emergence/Re-entry Surveys (Arbtech Consulting Ltd., 2015)
- Preliminary Ecological Appraisal (Tyrer Ecological Consultants., 2018)
- Bat Emergence/Re-entry Surveys (Tyrer Ecological Consultants., 2019)
- Great Crested Newt surveys (Tyrer Ecological Consultants., 2019)
- Preliminary Ecological Appraisal/Preliminary Roost Assessment (Arbtech Consulting., 2023).
- Great Crested Newt surveys (Arbtech Consulting Ltd., 2024)

## Survey Details

The site survey was undertaken by Katie Whitfield BSc (Hons) MSc, Graduate Ecologist, Accredited on Natural England Bat License (details on request) and accredited on Natural England/Natural Resources Wales Level 1 Great Crested Newt License (details on request).

| Date of survey | Temperature (°C) | Humidity (%) | Cloud Cover (%) | Wind (mph) | Rain |
|---|---|---|---|---|---|
| 22/01/2026 | 8 | 89 | 95 | 10 | Moderate |

## Executive Summary

**Green Infrastructure Assessment**

A Green Infrastructure Assessment is required to detail the delivery of Net Biodiversity Benefit and maintenance of biodiversity value during development.

**Bats**

Three bat surveys are required on B1 and B2, and two bat surveys on B4a and B5, within the optimal survey season (May to September). No works which may block or removal potential roosting features should be carried out until the required surveys have been completed.

A low impact lighting strategy will be implemented to reduce disturbance to commuting bats.

### Amphibians

Updated bottle-trapping surveys are required on P1 and P2. NRW should be contacted to determine an agreeable scope of further surveys and to confirm the conditioning of these surveys to inform a licence application, as appropriate.

### Birds

Any building or vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the buildings/vegetation should be undertaken by a qualified ecologist prior to commencement of work.

Precautions should be taken with machinery and noise levels when working close to any retained nests

A pre-commencement check for the presence of barn owls should be undertaken within the barn buildings.

### Reptiles

A non-licensed reptile mitigation plan will be produced for the site to minimise impacts as a result of the proposed development..

### Other notable species

A toolbox talk and pre-commencement check should be adopted for both water voles and badgers. Generalprecautionary measures will be implemented for hedgehogs.

Enhancements are outlined in the relevant tables below.

## Survey limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area,and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

The PEA survey was completed outside of the optimal survey period (April to October) limiting the identification of ground flora species, however, an adequate judgement could be made from the vegetation visible.

| **Ecological Survey Factor**<br><br>**Conclusion, Impact or Recommendations** | **Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.** |
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| **Habitats and plants (see habitat/PRA map in appendix 1a/b, location plan in appendix 2, pond map in appendix 3, proposal plan in appendix 4 and photos in appendix 5).**<br>**Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).** | |
| *Summary of Survey Findings*<br><br>**(***UKHab codes used)* | The site contains a native hedgerow and a pond (within the ownership boundary) which are listed as a habitat of principal importance under Section 7 of the Environment (Wales) Act 2016. The site also contains scattered trees, scrub and rank grassland which are of good quality and could be of value to local wildlife populations (as detailed in subsequent sections of this table). Other habitats within the site are common and widespread and have low ecological value. Further notable habitats are present within 2km.<br><br>**On-site habitat descriptions**<br>**u1b** – Developed land/sealed surface<br>Areas of hardstanding are found to the north and west of the site. Pockets of this habitat parcel were previously noted as scrub, however, recent vegetation clearance has left hard standing only. Rubble piles are interspersed within.<br><br>**u1b5** – Buildings<br>There are 8no. buildings on site including a main dwelling and degraded farm outbuildings. See bat section for further information.<br><br>**u1e** – Built linear features<br>A partial red brick wall and security fencing is found along the southern boundary with a gate within. Additional fencing is found along the western and northern boundaries comprising mesh fencing which has fallen over to the west.<br><br>**u1f** – Sparsely vegetated urban land<br>Parcels of sparsely vegetated land are found to the north, south and west of the site, with ~30% vegetation cover interspersed within compact soil and hardstanding. Species assemblage includes **frequent** cocks-foot, small balsam, creeping thistle, buddleia, **occasional** bramble sp., white clover, broad-leaved dock, common dandelion, creeping buttercup, and white dead nettle. Bracken, scrub and tree cover is less than 25%, with an absence of non-native plant species. |

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| | **g3c** – Other neutral grassland<br>Parcels of other neutral grassland are found to the north and east of the site. The grassland is unmanaged with varied sward heights of <7cm for ~60% and >15cm for ~40% of the area. Patches of bare ground are evident for ~15% of the habitat parcel, with ~10% areas of physical damage from vehicle usage. Species assemblage includes **dominant** cocks-foot, Yorkshire fog, **abundant** creeping thistle, **frequent** red fescue, common cleavers, false oat-grass, common sorrel, white clover, **occasional** oxeye daisy, black medick, common hogweed, cow parsley, common ragwort, shining cranesbill, and common mugwort. Indicator species are not present in a consistently high proportion. Further, bracken and scrub cover is <5%.<br><br>**h2a** – Native Hedgerow<br>An unmanaged native hedgerow is found along the eastern and southern boundary comprising dominant common hawthorn. The hedge has a height of ~1m, and a width of ~1m, being relatively sparse with >0.5m gaps between the base of the hedge and ground for ~60% of its length. Undisturbed ground is evident on one side of the hedge comprising unmanaged grassland. Further, plants indicative of nutrient enrichment dominate <20% of the undisturbed ground. No invasive non-native plant species or damage is evident within the hedge.<br><br>**h3d** – Bramble scrub<br>Pockets of dense bramble scrub are found to the east of the site comprising **dominant** bramble sp. and **occasional** common nettles and buddleia.<br><br>**h3j** – Willow scrub<br>A pocket of willow scrub is found to the east of the site comprising dominant willow Salix Sp.<br><br>Scattered trees 32<br>There are 12no. scattered trees found on site, 6no. of which are found in other neutral grassland, 4no. in sparsely vegetated land and 2no. within sealed surfaces. Species include 6no. semi-mature common elders (T1-T6) of Diameter at Breast Height (DBH) between 7.5cm and 30cm, 1no. mature Austrian pine of DBH >60.1cm (T7), 2no. semi-mature Norway spruce of DBH between 7.5cm and 30cm (T8) and 30.1cm and 60cm (T9), 1no. semi-mature Caucasian fir of DBH between 30.1cm and 60cm (T10) and 2no. mature common oaks of DBH >60cm (T11-T12). Further information on the mature common oak trees are found within the bat section.<br><br>**Local notable habitats**<br>Priority habitats are present within 2km of the site, including:<br><br>• Lowland mixed deciduous woodland ~1.3km north, with a second patch ~1.8km northeast.<br><br>Biological record data: |

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| | • Coastal floodplain and grazing march ~350m west (extending further to the north and south)<br>• Wood pasture and parkland ~1.5km west<br>• Ancient woodland ~1.8km southwest |
| *Foreseen Impacts* | **On-site habitats**<br>The proposed development will result in the loss of other neutral grassland, scrub, scattered trees, and sparsely vegetated land. This could result in a net loss in biodiversity at the site.<br><br>**Notable habitats**<br>No impacts are anticipated due to the distance of the proposed development from such sites. |
| *Recommendations* | **On-site habitats**<br>Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).<br><br>To compensate for the proposed habitat losses at the site, the following habitat creation measures should be incorporated:<br>• Incorporation of species rich grassland including wildflowers/wildflower turf within communal areas **outside** of vegetated gardens.<br>• Planting of native shrubs and trees **outside** of vegetated gardens.<br><br>**Notable habitats**<br>None required.<br><br>**Biodiversity net gain**<br>Planning Policy Wales (2024) requires all developments within Wales to conduct a Green Infrastructure Assessment to deliver Net Biodiversity Benefit and maintain biodiversity during development. Therefore, the planning application must be accompanied by a Green Infrastructure Statement to detail how the site is maintaining biodiversity and include recommendations to further enhance the site biodiversity. |
| **Locality and Designated Sites** | |
| *Summary of Survey Findings* | **On-site designations**<br>The site is not subject to any designation.<br><br>**Statutory designated sites (within 2km)**<br>The site lies within the impact risk zone for the River Dee.<br><br>**Statutory designated sites (within 10km)**<br>Two national network sites (SAC, Ramsar) are located within 10km, as detailed below:<br>• River Dee and Bala Lake located ~2.5km east. |

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| | • Midland Meres & Mosses Phase 2 ~3.5km southwest.<br><br>**Non-statutory designated sites**<br>Records from COFNOD note 2 wildlife sites within 2km of the site, as detailed below:<br>• Coxwood located ~1.8km southwest<br>  ○ An ancient woodland with comprising predominantly of common oak with occasional field maple, ash and wild cherry. The northern half has been felled, with regenerating ash and birch.<br>• Darland Wood located ~475m north:<br>  ○ Two small woodlands joined by a narrow woodland corridor. The habitat parcel comprises of horse chestnut, beech and sycamore, with English elm, wych elm and holly within the sparse understorey. Ground flora comprises dogs mercury, ground elder, bluebells, giant fescue, cuckoopint and wild garlic. |
| *Foreseen Impacts* | **On-site designations**<br>No impacts foreseen.<br><br>**Statutory and non-statutory designated sites**<br>No impacts to designated sites are anticipated due to the distance of the proposed development from such sites (where known). |
| *Recommendations* | **On-site designations**<br>None required.<br><br>**Statutory and non-statutory designated sites**<br>None required. |
| **Invasive / Non-native species** | |
| *Summary of Survey Findings* | Buddleia is interspersed within the site. Thought not listed under schedule 9 of the Wildlife and Countryside Act 1981, buddleia is a problematic non-native species and action to avoid its spread should be adopted. |
| *Foreseen Impacts* | Construction could result in the spread of invasive species. |
| *Recommendations* | It is recommended that any buddleia is be dug up, including roots, and disposed of in line with appropriate controlled waste measures, or controlled during construction works to prevent the spread off-site. |
| **Invertebrates** | |
| *Summary of Survey Findings* | **Biological Record Data:**<br>• Alder leaf beetle *(Agelastica alni)* – 1473m west<br>• Mottled longhorn beetle *(Anaglyptus mysticus)* – 1315m southeast<br>• Bronze-necked flea beetle *(Longitarsus aeneicollis)* – 1983m west<br>• A riffle beetle *(Oulimnius troglodytes)* – 1232m south |

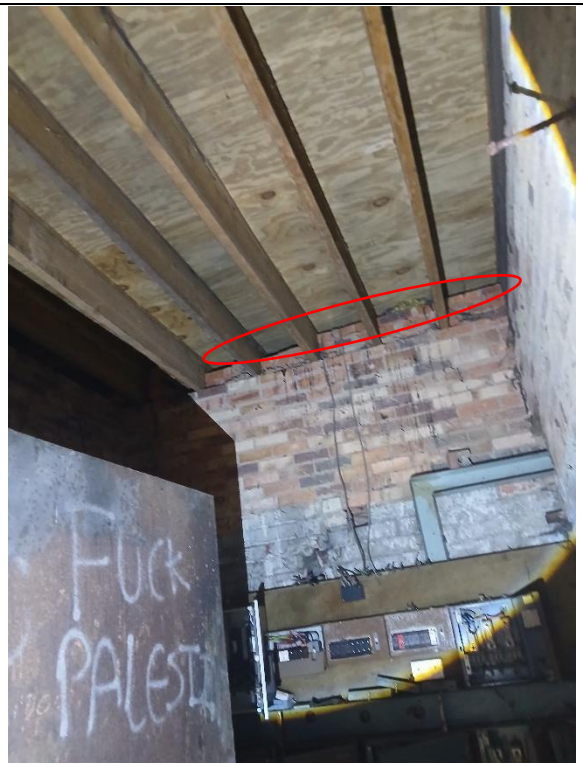
<table>
<tr><td></td><td>
<ul>
<li>White-spotted caddisfly (Ceraclea albimacula) – 1115m south</li>
<li>Common darter (Sympetrum striolatum) – 1743m south</li>
<li>Two-spotted soldierfly (Eupachygaster tarsalis) – 1553m south</li>
</ul>
The habitats present on-site, including other neutral grassland, scrub, sparsely vegetated land, scattered trees and native hedgerow, likely provide common invertebrates with opportunities to forage and shelter. The pond within the ownership boundary may provide niches for specialised or protected invertebrates.
</td></tr>
<tr><td>Foreseen Impacts</td><td>Other neutral grassland, scrub, sparsely vegetated land, scattered trees and native hedgerow will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.</td></tr>
<tr><td>Recommendations</td><td>No further surveys.<br>Suggested biodiversity enhancements<br>The incorporation of bee bricks (e.g. Ibstock BeeHabitat or similar alternative brand) into the fabric of the new dwellings would provide sheltering opportunities for pollinators. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation. The site could be further enhanced via the provision of native wildflowers or wildflower turf, which would provide foraging opportunities for invertebrates.</td></tr>
<tr><td colspan="2">Bats</td></tr>
<tr><td>Summary of Survey Findings</td><td>
Biological Record Data:
<ul>
<li>Noctule (Nyctalus noctula) – records present on site</li>
<li>Common pipistrelle (Pipistrellus pipistrellus) – records present on site</li>
<li>Brown long-eared bat (Plecotus auritus) – records present on site</li>
</ul>
EPSL data<br>
A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There is one EPSL within a 2km radius of site as detailed below:
<table>
<tr><th>EPSL reference</th><th>Bat species affected</th><th>Distance from site</th><th>Impacts allowed by licence</th></tr>
<tr><td>2015-7189-EPS-MIT</td><td>Brown long-eared bat, common pipistrelle, natterers, soprano pipistrelle</td><td>~2km northeast</td><td>Destruction of a resting place</td></tr>
</table>
There are no Special Areas of Conservation designated for bats within 10km of the site.
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| | **Foraging and commuting habitat**<br>Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of other neutral grassland, scrub, sparsely vegetated land, scattered trees and native hedgerow. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Most notably, the hedgerows and trees to the southeast of site are mature and extend beyond the site via hedge-lined fields adding to the continuity of vegetated linear features present in the wider landscape. Bats are well known to utilise linear features to aid navigation whilst travelling between foraging resources and roost sites. As such it is likely that bats will commute and forage through the site.<br><br>**Roosting habitat**<br>Buildings and trees to be impacted by the proposed development are assessed for their suitability to support roosting bats below. There are a total of 8 buildings on site; the main dwelling (B1), and farm outbuildings (B2 – B8). All buildings were surveyed due to the proposed conversion and/or demolition of B1-B8.<br><br>T11-T12 are assessed for roosting features, all remaining trees are young/semi-mature with no notable features for bats. |
| ***B1 Building description*** | ***Photographs*** |

<table>
<tr><td colspan="3">Summary<br>B1 is a former residential dwelling comprising two storey brick-built walls, with a former pitched slate roof which is no longer present due to previous fire damage. Roosting features suitable for a low number of crevice-dwelling bats are evident in the form of missing brickwork and ivy. Additionally, flat roof sections are found to the north, northeast and southeast of B1, with features suitable for crevice dwelling bats present in the form of gaps between walls and fascia boards. Due to the fire damage, internal access was not available.<br><br>History<br>Historically B1 contained a bat roost, confirmed via droppings noted during the 2015 PRA. The subsequent 2015 BERS confirmed the presence of a common pipistrelle day roost within B1. Following these surveys the building was subject to significant fire damage with the roof structure lost. The 2018 PRA concluded that the building had moderate roosting value for bats, with the following 2019 BERS confirming a common pipistrelle day roost. The most recent PRA survey in 2023 re-confirmed that the building had moderate roosting value. 2023 BERS which were partially completed confirmed a soprano pipistrelle emergence and re-entry.<br><br>The building currently has moderate habitat value, however, is still considered suitable to support historically recorded roosts.</td><td></td></tr>
<tr><th>Feature</th><th>Materials</th><th>Condition/description/suitability</th><th>Photograph(s)</th></tr>
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| Walls | Red-brick construction | **Condition/description**<br>Numerous gaps within the brickwork, particularly on the southeast and northwest gable ends, and additional gaps in brickwork noted internally on the northeast facing wall. Ivy is present on the southwest and southeast facing walls.<br><br>**Suitability/access/evidence of bats**<br>Gaps within brickwork provide suitable roosting habitat for a low number of crevice dwelling bats. Further, the areas of ivy could conceal possible crevices suitable for crevice dwellers. Due to the lack of roof structure no suitable features are evident for void dwelling bats. Roosting features are small and subject to weather exposure and light ingress and as such are not suitable to support maternity or hibernation roosts. No evidence found but recent and current rain would wash this away externally. | <br>Northwestern elevation of B1, with several gaps in the brickwork. |

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| Roof | Flat roof | **Condition/description**<br>Flat roof sections are intact to the north, northeast and southeast of B1.<br><br>**Suitability/access/evidence of bats**<br>Gaps above wall tops provide suitable roosting habitat for a low number of crevice dwelling bats. No evidence found but recent and current rain would wash this away externally. | <br>Flat roof sections to the north of B1. |

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| Eaves | Overhanging | **Condition/description**<br>Gaps are present within internal wall tops of the northern flat roof section, which can be accessed via open doorways to the northwest.<br><br>**Suitability/access/evidence of bats**<br>Gaps above wall tops provide suitable roosting habitat for a low number of crevice dwelling bats. No evidence found but recent and current rain would wash this away externally. | <br>Gaps on wall tops internally with northern flat roof section. |

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| Barge boards/fascia boards | Timber | **Condition/description**<br>Gaps are present beneath fascia boards on the northwest facing flat roof.<br><br>**Suitability/access/evidence of bats**<br>Gaps under boards provide direct access to the internal flat roof section of B1. Such features provide access internally, whereby a low number of crevice dwelling bats may utilise gaps above wall tops. No evidence found internally, recent and current rain would wash this away externally. |  |

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| Window/doors frames and lintels | Timber | **Condition/description**<br>Windows and doors are missing throughout B1.<br><br>**Suitability/access/evidence of bats**<br>Open windows and doors provide access for bats into the interior of the building and to crevices found on wall tops and within the walls themselves. | <br>Southwest elevation of B1, with several open windows. |
| Internal voids | N/A | N/A | N/A |
| ***B2 Building description*** | | | ***Photographs*** |

B2 comprises a series of connected derelict barns all of which are made of a red-brick construction with pitched roofs, clad in slate roof tiles. There are numerous missing and raised slate tiles providing suitable roosting habitat for crevice dwelling bats. Only one section to the northeast could be accessed due to safety concerns.

*History*
During the 2015 PRA survey, B2 was concluded to have low roosting value for bats. The 2018 PRA survey concluded B2 to have moderate suitability for bats, with the subsequent 2019 BERS confirming the presence of a common pipistrelle day roost within the building. The updated 2023 PRA confirmed B2 still held moderate roosting value for a low number of crevice-dwelling bats. Subsequent 2023 BERS were partially completed which confirmed 11 soprano pipistrelle (SP) emergences during visit 1 with a further SP emergence in visit 2.

The building currently has **moderate habitat value** however, is still considered suitable to support historically recorded roosts.



| Feature | Materials | Condition/description/suitability | Photograph(s) |
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| Walls | Red-brick construction | **Condition/description**<br>Occasional gaps within the brickwork, with missing mortar also evident, particularly on the northwest elevation.<br><br>**Suitability/access/evidence of bats**<br>Gaps within brickwork and missing mortar provide suitable roosting habitat for a low number of crevice dwelling bats. Missing brickwork may lead into internal areas of B2, however, the light ingress internally makes B2 unsuitable for void dwelling bats. Roosting features are small and subject to weather exposure and light ingress and as such are not suitable to support maternity or hibernation roosts. No evidence found but recent and current rain would wash this away externally. | <br>West facing B2, with gaps interspersed within brickwork. |

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| Roof | Slate | **Condition/description**<br>Numerous missing and raised slate tiles are present on each section of the barn, including a gap along the ridge to the northeast.<br><br>**Suitability/access/evidence of bats**<br>Gaps within raised/missing tiles provide suitable roosting habitat for crevice dwelling bats. These features are considered to offer value for a low number of bats due to the lack of internal lining withing B2. Such features do not provide roosting value for void dwelling bats as well as maternity or hibernating bats due to light ingress and weather exposure internally. Further, there are a lack of suitable crevices within the accessible section of B2 for void dwellers. No evidence found but recent and current rain would wash this away externally. | <br>West facing B2. |

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| Eaves | Closed | **Condition/description**<br>No gaps at wall tops.<br><br>**Suitability/access/evidence of bats**<br>No roosting features evident. |  |
| Barge boards/fascia boards | N/A | N/A | N/A |

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|---|---|---|---|
| Window/doors frames and lintels | N/A | **Condition/description**<br>Windows and doors are missing throughout B1.<br><br>**Suitability/access/evidence of bats**<br>Open windows and doors provide access for bats into the interior of B2 which could be used for exploratory visits or feeding roosts. No evidence found internally, but recent and current rain would wash this away externally. | <br>Open doorways on the east facing B2. |

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| Internal voids | Open from floor to roof. Timber beams, supported by metal joints with no internal lining. | **Condition/description**<br>Temperature and humidity levels reflect outside weather conditions.<br><br>The internal timbers are in good condition with no obvious cracks within.<br><br>No internal lining is present with slate tiles found directly behind timber beams. Light ingress is evident via several open windows as well as gaps within the tiles and brickwork providing direct access into the internal area. These open features likely subject B2 to weather exposure.<br><br>The building is disused and as such is not subject to levels of disturbance.<br><br>**Suitability/access/evidence of bats**<br>No evidence of bats (i.e., droppings, feeding remains) were found internally, however, an extensive search could not be done due to damage to the floorboards. The internal area is likely unsuitable for void dwelling bats due to the lack of stable dark spaces and weather exposure within, however could be used for exploratory visits or as a feeding roost for both void and crevice dwellers. Crevice dwelling bats could utilise the internal space when emerging from gaps under tiles. No evidence found internally, but recent and current rain would wash this away externally. | <br>Ground floor of B2. |

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| | | |  Upper floor of B2. |

| ***B2a Building description*** | ***Photographs*** |
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| *Summary*<br>B2a is a single storey extension on the southwestern end of B2 which is also made of a red-brick construction. The roof structure is flat and partially collapsed. No suitable crevices are evident externally or internally, with B2a subject to light and weather exposure.<br><br>B2a has **negligible** value for roosting bats.<br><br>*History*<br>All previous surveys concluded B2a as having negligible value for roosting bats. The most recent 2023 PRA also found the building to be of negligible value. | <br>Southwest facing B2a. |

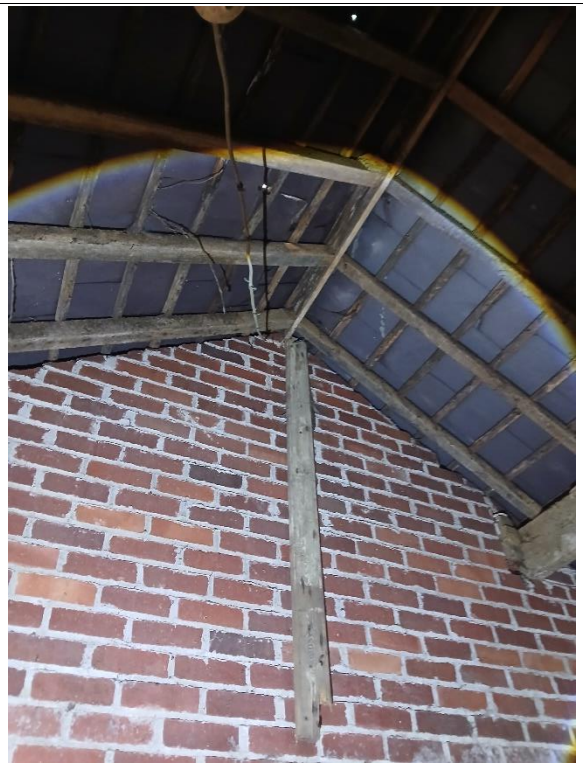
| ***B3 Building description*** | ***Photographs*** |
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| *Summary*<br>B3 is a former barn building with a former pitched roof clad with slate tiles, which is no longer present. The remaining sections of B3 comprise walls of red brick construction, with no suitable gaps evident for crevice dwelling bats. Further, the lack of internal void makes B3 unsuitable for void dwelling bats.<br><br>B3 has **negligible** value for roosting bats.<br><br>*History*<br>B3 was historically found to have high roosting value for bats during the 2015 survey. No roosts were found in the subsequent 2015 BERs. The 2019 BERs confirmed the presence of a common pipistrelle day roost via an open doorway. Since these surveys B3 has been subject to deterioration with the roof no long present, as such the 2023 PRA concluded B3 to no long be suitable for roosting bats. | <br>Northwest elevation of B3. |

| ***B4 Building description*** | ***Photographs*** |
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| *Summary*<br>B4 consists of two disused barns constructed from breezeblock, wooden panelling and metal corrugated sheets. The roof structure comprises of corrugated asbestos sheeting and metal with skylights interspersed within. The internal space is open from floor to ridge, with metal beams supporting the structure. Significant light ingress is evident from skylights as well as B4 being open-ended which leaves B4 exposed to external elements. A section of ivy is present on the southwest elevation which could conceal features, however, due to the lack of stable dark spaces and internal conditions the structure is deemed unsuitable for both crevice and void dwelling bats. Further, the metal/asbestos corrugated sheeting provides no suitable crevices for roosting bats.<br><br>B4 has **negligible** value for roosting bats.<br><br>*History*<br>Previous surveys concluded B4 to have negligible value for roosting bats, including the most recent 2023 PRA. | <br>East facing wall of B4. |

| ***B4a Building description*** | ***Photographs*** |
|---|---|
| *Summary*<br>B4a is a single-storey disused barn. The walls comprise of a red-brick construction with the roof structure clad of slate tiles. Roosting features are evident in the form of numerous missing and raised slate tiles, as well as gaps on wall tops internally. The internal space has no roof lining.<br><br>*History*<br>B4a was concluded as having low roosting value during the 2015 PRA, and moderate roosting value during the 2018 PRA. The 2023 PRA also confirmed B4a to have moderate roosting value. No bat roosts were confirmed during any of the subsequent BERS.<br><br>The building currently has **moderate habitat value**. |  |

| Feature | Materials | Condition/description/suitability | Photograph(s) |
|---|---|---|---|
| Walls | Red-brick construction | **Condition/description**<br>The walls are sealed with no missing brickwork/mortar.<br><br>**Suitability/access/evidence of bats**<br>No roosting features evident. | <br>North elevation of B4a. |

| | | | |
|---|---|---|---|
| Roof | Slate | **Condition/description**<br>Numerous missing and raised slate tiles are present on the barn.<br><br>**Suitability/access/evidence of bats**<br>Gaps within raised/missing tiles provide suitable roosting habitat for crevice dwelling bats. These features are considered to offer value for a low number of bats due to the lack of internal lining withing B4a. Such features do not provide roosting value for void dwelling bats due to B4a being open floor to ridge, as well as maternity or hibernating bats due to light ingress and weather exposure internally. No evidence found but recent and current rain would wash this away externally. | <br>Missing/raised tiles on north elevation of B4a. |

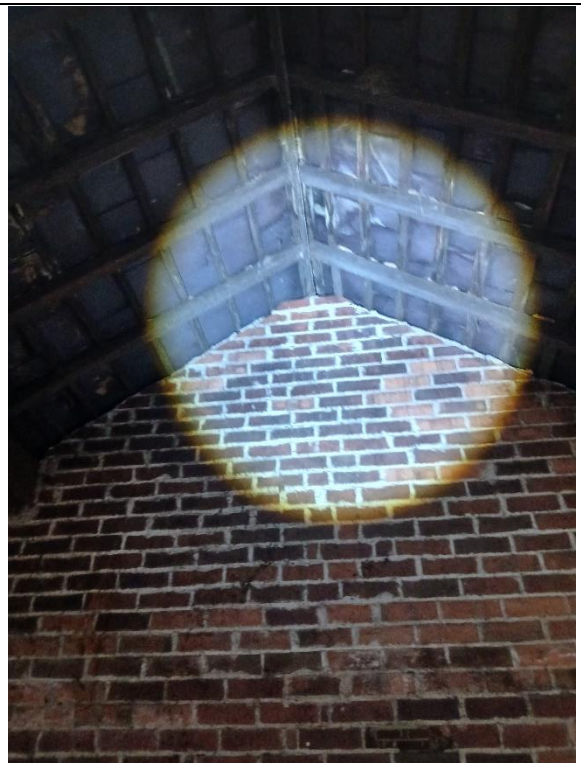
| | | | |
|---|---|---|---|
| Eaves | Overhanging | **Condition/description**<br>Gaps are evident on wall tops internally which can be accessed via open doorways and gaps in tiles.<br><br>**Suitability/access/evidence of bats**<br>Gaps on wall tops provide suitable roosting habitat for crevice dwelling bats. No evidence found internally, recent and current rain would wash this away externally. | <br>Gaps on wall tops internally. |
| Barge boards/fascia boards | N/A | N/A | N/A |
| Window/doors frames and lintels | Timber | **Condition/description**<br>Windows and doors are missing throughout B4a.<br><br>**Suitability/access/evidence of bats**<br>Open windows and doors provide access for bats into the interior of B4a which could be used for exploratory visits or feeding roosts, as well as a low number of crevice dwelling bats within gaps in tiles or wall tops. No | N/A |

| | | | |
|---|---|---|---|
| | | evidence found internally, but recent and current rain would wash this away externally. | |
| Internal voids | Open from floor to roof. Timber beams, with no internal lining. | **Condition/description**<br>L: 20m<br>W: 5m<br>H: 4m<br>Temperature and humidity levels reflect outside weather conditions.<br><br>The internal timbers are in good condition with no obvious cracks within.<br><br>No internal lining is present with slate tiles found directly behind timber beams. Light ingress is evident via several open windows/doors as well as gaps within the tiles which provide direct access into the internal area. These open features likely subject B4a to weather exposure.<br><br>The building is disused and as such is not subject to levels of disturbance.<br><br>**Suitability/access/evidence of bats**<br>No evidence of bats (i.e., droppings, feeding remains) were found internally, however, an extensive search could not be done due to damage to the floorboards. The internal area is likely unsuitable for void dwelling bats due to the lack of stable dark spaces and weather exposure within, however could be used for exploratory visits or as a feeding roost for both void and crevice dwellers. Crevice dwelling bats could utilise the internal space when emerging from gaps under tiles as well as gaps on wall tops. No evidence found internally, but recent and current rain would wash this away externally. |  |

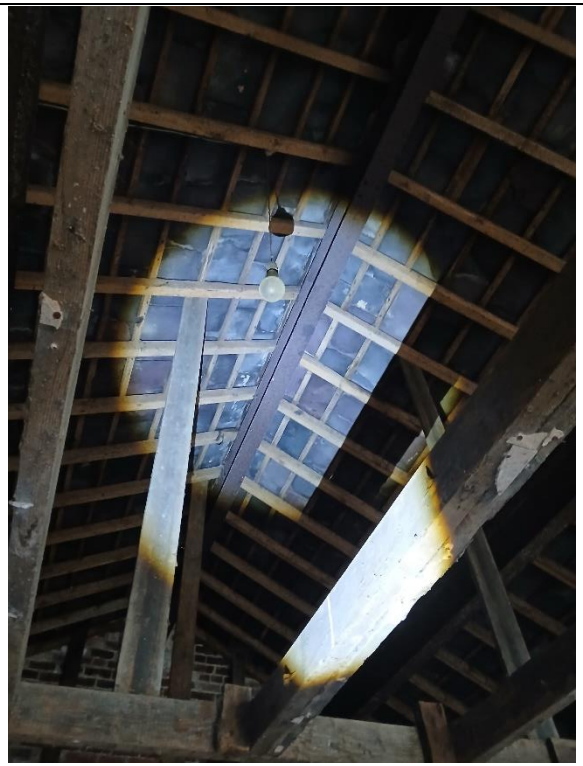
| ***B5 Building description*** | ***Photographs*** |
|---|---|
| *Summary*<br>B5 is a disused barn comprising a single-storey structure to the northwest and two-storey structure to the southeast. The walls are made of red-brick construction, and the roof structure is clad with slate tiles. A section of the roof is missing to the southeast. Numerous missing and raised slate tiles are present throughout providing roosting habitat for crevice dwelling bats. Bird nests are also noted within the lower section of B5.<br><br>*History*<br>B5 was concluded to have low roosting value for bats during the 2015 PRA, with an additional 2018 PRA concluding B5 had moderate roosting value. Subsequent BERS in 2019 confirmed a common pipistrelle day roost within B5. The 2023 PRA also concluded B5 to have moderate roosting value. No emergences were observed during the 2024 BERS.<br><br>The building currently has **moderate habitat value**, however, is still considered suitable to support historically recorded roosts. |  |

| Feature | Materials | Condition/description/suitability | Photograph(s) |
|---|---|---|---|
| Walls | Red-brick construction | **Condition/description**<br>The walls are sealed with no missing brickwork/mortar.<br><br>**Suitability/access/evidence of bats**<br>No roosting features evident. | <br>Wall on northeast facing B1. |

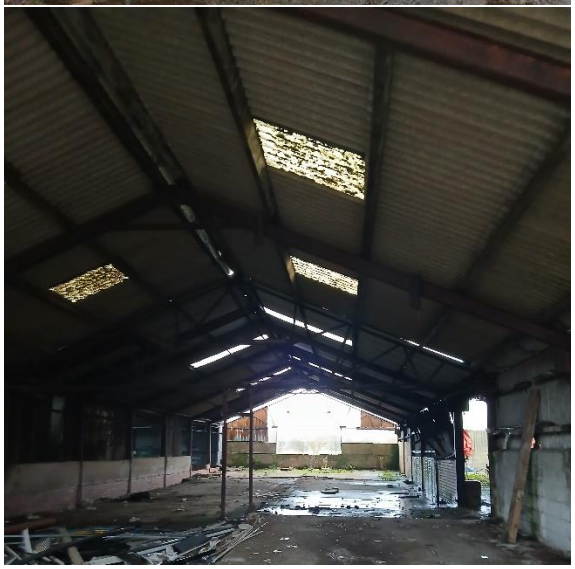
| | | | |
|---|---|---|---|
| Roof | Slate | **Condition/description**<br>Numerous missing and raised slate tiles are present on the barn.<br><br>**Suitability/access/evidence of bats**<br>Gaps within raised/missing tiles provide suitable roosting habitat for crevice dwelling bats. These features are considered to offer value for a low number of bats due to the lack of internal lining withing B5. Such features do not provide roosting value for void dwelling bats due to B5 being open floor to ridge, as well as maternity or hibernating bats due to light ingress and weather exposure internally. No evidence found but recent and current rain would wash this away externally. | <br>Missing slate tiles on the southwest elevation. |

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| Eaves | Closed | **Condition/description**<br>Gaps are evident on wall tops internally which can be accessed via open doorways/windows and gaps in tiles.<br><br>**Suitability/access/evidence of bats**<br>Gaps on wall tops provide suitable roosting habitat for crevice dwelling bats. No evidence found internally, recent and current rain would wash this away externally. | <br>Gaps on wall tops internally, within each section of B5. |
| Barge boards/fascia boards | N/A | N/A | N/A |

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|---|---|---|---|
| Window/doors frames and lintels | Timber | **Condition/description**<br>Windows and doors are missing throughout B5.<br><br>**Suitability/access/evidence of bats**<br>Open windows and doors provide access for bats into the interior of B5 which could be used for exploratory visits or feeding roosts, as well as a low number of crevice dwelling bats within gaps in tiles or wall tops. No evidence found internally, but recent and current rain would wash this away externally. | <br>Open doorways on the southwestern elevation. |

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|---|---|---|---|
| Internal voids | Open from floor to roof. Timber beams, with no internal lining. | **Condition/description**<br>L: 35m<br>W: 5m<br>H of two-storey: 5m<br>H of one-storey: 4m<br><br>Temperature and humidity levels reflect outside weather conditions.<br><br>The internal timbers are in good condition with no obvious cracks within.<br><br>No internal lining is present with slate tiles found directly behind timber beams. Light ingress is evident via several open windows/doors as well as gaps within the tiles which provide direct access into the internal area. These open features likely subject B5 to weather exposure.<br><br>The building is disused and as such is not subject to levels of disturbance.<br><br>**Suitability/access/evidence of bats**<br>No evidence of bats (i.e., droppings, feeding remains) were found internally, however, an extensive search could not be undertaken due to damage to the floorboards. The internal area is likely unsuitable for void dwelling bats due to the lack of stable dark spaces and weather exposure within, however could be used for exploratory visits or as a feeding roost for both void and crevice dwellers. Crevice dwelling bats could utilise the internal space when emerging from gaps under tiles as well as gaps on wall tops. No evidence found internally, but recent and current rain would wash this away externally. | <br>Internal area within two-storey structure. |

| | | | |
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| | | |  Internal area within one-storey structure. |

| ***B6 Building description*** | ***Photographs*** |
|---|---|
| *Summary*<br>B6 comprises three adjoined disused barns constructed of breezeblock, wooden panelling and corrugated metal panels. Skylights are interspersed within the pitched roof, clad with corrugated metal. The barns are open ended allowing significant light ingress and weather exposure which reduces suitability for void-dwelling bats. Further, there are no suitable gaps internally or externally for crevice-dwelling species. The open-ended nature of B6 does provide access to birds and bats, with bats possibly using B6 on exploratory basis.<br><br>B6 has **negligible** value for roosting bats.<br><br>*History*<br>Previous surveys concluded B6 to have negligible value for roosting bats, including the most recent 2023 PRA. | <br> |

| ***B7 Building description*** | ***Photographs*** |
|---|---|
| *Summary*<br>B7 consists of a single-storey disused barn with a pitched roof constructed from corrugated asbestos panels. Extensions are found to the northwest of B7 with one constructed of breezeblock with a flat roof, and the other of red-brick construction with a previous pitched roof made of asbestos panels which has now fallen down. An additional single-storey extension is found to the northeast of B7, comprising of breezeblock with no roof present. No gaps are evident within the red-brick and breezeblock walls.<br><br>B7 has **negligible** value for roosting bats.<br><br>*History*<br>Previous surveys concluded B7 to have negligible value for roosting bats, including the most recent 2023 PRA. | <br> |

| ***B8 Building description*** | ***Photographs*** |
|---|---|
| *Summary*<br>B8 comprises former animal pens. The remaining walls are made of red-brick construction, with no roof structure present. No suitable gaps are evident within the brickwork.<br><br>B8 has **negligible** value for roosting bats.<br><br>*History*<br>Previous surveys concluded B8 to have negligible value for roosting bats, including the most recent 2023 PRA. |  |

| ***T11 description*** | ***Photographs*** |
|---|---|
| *Summary*<br><br>T11/T12 are mature common oak trees located SJ 37827 57348 and SJ 37805 57364 within the native hedgerow along the southern boundary. Both trees are covered in dense ivy from the base to the canopy of the tree. No features were evident from ground level, but the ivy may conceal features, particularly given the age and condition of the trees.<br><br>These trees are to be retained. | <br>T12 on the southern boundary. |

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| *Foreseen Impacts* | **Roosting habitat [Buildings]**<br>The proposed development will result in the conversion or demolition of B1-B8 This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.<br><br>**Roosting habitat [Trees]**<br>T1-T6 will be felled to facilitate the development. No features were identified on these trees and as such there are unlikely to be any impact to bats as a result of felling.<br><br>**Foraging and commuting habitat** |

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| | The proposed development will result in the loss of small areas of other neutral grassland, scrub, sparsely vegetated land, and scattered trees but given the presence of more extensive areas of foraging and commuting habitat in the locality as well as retention of more notable scattered trees and hedgerows on site, this is likely to be inconsequential for bats.<br><br>**Artificial lighting**<br>The proposed development may lead to an increase in the amount of current lighting of surrounding habitats without mitigation. This may disturb commuting bats. |
| *Recommendations* | **Roosting habitat [Buildings]**<br>**No works to the on site buildings that may block or remove potential roosting features should be carried out until the required surveys have been completed. Undertaking such work beforehand could unlawfully affect bats if present and may compromise the validity of the surveys and hinder the planning application process.**<br><br>Three bat emergence surveys are required on B1 and B2 due to the historic roosts present and two bat emergence surveys are required on B4a, and B5. This will be done during the active bat season (May – September) to confirm presence/absence of bats roosting in or on the building.<br><br>These survey visits should be completed during the optimal survey period mid-May to August inclusive. The survey visits should be at least three weeks apart.<br><br>Fourteen surveyors assisted by Infrared of Thermal Night-Vision Aids (NVAs) are required to provide full coverage of are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. Unmanned NVAs may also be employed in addition or in place of surveyors to provide the best coverage of the building, proportionate to the survey effort required.<br><br>If any bat roosts are confirmed from this survey schedule, additional surveys and a bat licence as the proposed development would involve the destruction of roosts. This is applied for with the help of a class 2 licensed bat ecologist after planning permission is granted, but before commencement of works.<br><br>**Roosting habitat [Trees]**<br>None required.<br><br>**Foraging and commuting habitat**<br>No further surveys are required.<br><br>**Artificial lighting** |

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| | A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting<br><br>**Suggested biodiversity enhancements**<br>Enhancements are dependent on the outcome of further surveys. |
| **Birds** | |
| *Summary of Survey Findings* | **Biological Record Data:**<br><br>**Present on Site**<br>**None recorded**<br>**Present within 500m**<br>**Bullfinch (*Pyrrhula pyrrhula*)** – Coal Tit (*Periparus ater*) – **Collared Dove (*Streptopelia decaocto*)** – Coot (*Fulica atra*) – **Cuckoo (*Cuculus canorus*)** – Dunnock (*Prunella modularis*) – **Fieldfare (*Turdus pilaris*)** – Goldcrest (*Regulus regulus*) – **Green Woodpecker (*Picus viridis*)** – Greenfinch (*Chloris chloris*) – **House Martin (*Delichon urbicum*)** – House Sparrow (*Passer domesticus*) – **Kestrel (*Falco tinnunculus*)** – Magpie (*Pica pica*) – **Mallard (*Anas platyrhynchos*)** – Mistle Thrush (*Turdus viscivorus*) – **Moorhen (*Gallinula chloropus*)** – Redwing (*Turdus iliacus*) – **Rook (*Corvus frugilegus*)** – Song Thrush (*Turdus philomelos*) – **Sparrowhawk (*Accipiter nisus*)** – Spotted Flycatcher (*Muscicapa striata*) – **Starling (*Sturnus vulgaris*)** – Starling (*Sturnus vulgaris*) – **Swift (*Apus apus*)** – Tawny Owl (*Strix aluco*) – **Woodpigeon (*Columba palumbus*)** – Wren (*Troglodytes troglodytes*)<br><br>**Present within 2km**<br>**Barn Owl (*Tyto alba*)** – Black-headed Gull (*Chroicocephalus ridibundus*) – **Cetti's Warbler (*Cettia cetti*)** – Chaffinch (*Fringilla coelebs*) – **Common Gull (*Larus canus*)** – Common Sandpiper (*Actitis hypoleucos*) – **Cormorant (*Phalacrocorax carbo*)** – Curlew (*Numenius arquata*) – **Dipper (*Cinclus cinclus*)** – Dunnock (*Prunella modularis*) – **Gadwall (*Mareca strepera*)** – Garden Warbler (*Sylvia borin*) – **Grasshopper Warbler (*Locustella naevia*)** – Green Sandpiper (*Tringa ochropus*) – **Grey Heron (*Ardea cinerea*)** – Grey Wagtail (*Motacilla cinerea*) – **Herring Gull (*Larus argentatus*)** – Hobby (*Falco subbuteo*) – **Kingfisher (*Alcedo atthis*)** – Lapwing (*Vanellus vanellus*) – **Lesser Black-backed Gull (*Larus fuscus*)** – Lesser Redpoll (*Acanthis cabaret*) – **Marsh** |

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|---|---|
| | **Tit (*Poecile palustris*)** – Meadow Pipit (*Anthus pratensis*) – **Mediterranean Gull (*Ichthyaetus melanocephalus*)** – Merlin (*Falco columbarius*) – **Osprey (*Pandion haliaetus*)** – Oystercatcher (*Haematopus ostralegus*) – **Peregrine (*Falco peregrinus*)** – Pink-footed Goose (*Anser brachyrhynchus*) – **Quail (*Coturnix coturnix*)** – Red Kite (*Milvus milvus*) – **Redstart (*Phoenicurus phoenicurus*)**– Reed Bunting (*Emberiza schoeniclus*) – **Ring Ouzel (*Turdus torquatus*)** – Sedge Warbler (*Acrocephalus schoenobaenus*) – **Shelduck (*Tadorna tadorna*)** – Skylark (*Alauda arvensis*) – **Snipe (*Gallinago gallinago*)** – Song Thrush (*Turdus philomelos*) – **Stock Dove (*Columba oenas*)** – Teal (*Anas crecca*) – **Wheatear (*Oenanthe oenanthe*)** – Whitethroat (*Curruca communis*) – **Willow Warbler (*Phylloscopus trochilus*)** – Yellow Wagtail (*Motacilla flava*) – **Yellowhammer (*Emberiza citrinella*)**<br><br>**Buildings**<br>Evidence of nesting birds was identified within B5 in the form of 3no. swallow nests. Other buildings on site are also deemed suitable for nesting birds.<br><br>**Trees and vegetation**<br>No bird nests were identified within the vegetation on-site, however, the trees, hedgerows and scrub all offer nesting opportunities and nest-building resources for birds.<br><br>**Barn owls**<br>No barn owl roosting/nesting evidence was found within any of the buildings, however, the barn buildings offer both nesting and roosting value. Further, there are anecdotal records of a barn owl perched in a tree on site during the 2023 survey (Arbtech Consulting Ltd).<br><br>**Overwintering birds**<br>Due to the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds. |
| *Foreseen Impacts* | **Buildings/trees**<br>The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.<br><br>**Barn owls**<br>The proposed development could result in the destruction or the disturbance and subsequent abandonment of active barn owl nests/roosts if these establish within the breeding season.<br>**Overwintering birds** |

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| | None foreseen. |
| *Recommendations* | **Buildings/trees**<br>Any building or vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.<br><br>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.<br><br>**Barn owls**<br>Owing to the nature of the proposed development and the low potential for impacts to barn owl, further surveys are considered to be disproportionate. It is anticipated that any risk to barn owl can be reduced to an acceptably low level through the implementation of a pre-commencement check for the presence of barn owls within the barn buildings.<br><br>**Overwintering birds**<br>None required.<br><br>**Suggested biodiversity enhancements**<br>The installation of a minimum of ten bird boxes on mature trees around the site boundaries or on retained/created buildings will provide additional nesting habitat for birds e.g.<br>• Schwegler No 17 Swift Nest Box (buildings)<br>• Schwegler 1SP Sparrow Terrace (buildings)<br>• Schwegler 1B Nest Boxes (trees)<br>• Schwegler 2H Robin Boxes (trees)<br>• Woodstone Nest Box (buildings or trees)<br>Or a similar alternative brand.<br><br>Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.<br><br>Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction. |
| **Reptiles** | |

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| *Summary of Survey Findings* | **Biological Record Data:**<br>• Grass Snake (*Natrix natrix*) – 417m north<br><br>**Habitat suitability**<br>Habitats recorded on site are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The hedgerow, unmanaged grassland and scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. Further, large log and rubble piles are interspersed through the site providing suitable hibernation habitat for reptiles. Although the site is surrounded by arable fields of limited value to reptiles due to increased predation, the hedgerows lining such fields provide connectivity to further suitable reptile habitat in the wider landscape. As such it is likely that reptiles are found on site. |
| *Foreseen Impacts* | Other neutral grassland, scattered trees, scrub, and sparsely vegetated land will be removed during construction, however suitable reptile habitat will be retained in the form of grassland, small pockets of scrub and hedgerows to the east of the site. The presence of reptiles is considered likely in low numbers within areas of scrub and hedgerows with site works predominantly impacting buildings, sealed surfaces and sparsely vegetated land. However, site clearance could result in the death or injury of reptiles, if present. |
| *Recommendations* | A non-licensed reptile mitigation plan will be produced for the site to minimise impacts as a result of the proposed development. This will include a standalone document detailing appropriate working methods during construction.<br><br>**Suggested biodiversity enhancements**<br>The site could be enhanced for reptiles post-development with the creation of log piles (created from felled materials) and basking areas within retained areas of grassland. |
| **Amphibians** | |
| *Summary of Survey Findings* | **Biological Record Data:**<br>• Great crested newt (*Triturus cristatus*) – records present on site<br>• Common frog (*Rana temporaria*) – 100m southwest<br>• Smooth newt (*Lissotriton vulgaris*) – 100m southwest<br>• Palmate newt (*Lissotriton helveticus*) – 603m south<br><br>**EPSL and survey data**<br>A full review of amphibian records within 2km cannot be established without data from COFNOD.<br><br>**Aquatic habitat suitability (including ponds within 500m)**<br>Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001). |

There is one pond within the ownership boundary to the east (P1), with an additional pond located ~45m south of the site within an arable field (P2). P1 is considered directly connected to the development area due to the presence of scattered trees, grassland and scrub between the pond and red line boundary. P2 is separated by a road, however the road is subject to low traffic flow, with no high kerbs and as such this is not deemed a significant barrier to dispersal. Additional ponds are found ~335m east (P3), ~445m north (P4), ~360m north (P5), ~430m northeast (P6), ~380m south (P7) and ~445m south (P8). Connectivity is found via hedge-lined fields for P3, P5, P6, P7 and P8, albeit a road between these ponds and the site, however roads present are small with low traffic flow and so are not a barrier to dispersal.

A pond map showing approximate pond locations is provided in Appendix 3.
P1 naturally fluctuates in water levels and measures ~360m$^2$. The banks are shallow and densely vegetated with unmanaged grassland species. The water was turbid at the time of survey, however, no fish or waterfowl are evident within. As a result of the HSI, P1 has been assessed to provide **Excellent** suitability to support great crested newts.

P2's water levels also naturally fluctuate. The area of P2 measures ~200m$^2$. The banks are flat and surrounded by scattered trees, with a small island with scattered trees within found centrally in the pond. No fish are evident within the pond, however waterfowl were observed during the survey. As a result of the HSI, P2 has been assessed to provide **Below Average** suitability to support great crested newts.

The scores for each HSI parameter can be viewed in the table below:

| **HSI Index** | **HSI Index Parameter** | | **HSI Score (P1)** | **HIS Score (P2)** |
|---|---|---|---|---|
| | **P1** | **P2** | | |
| 1 – Location | Zone A | Zone A | 1.0 | 1.0 |
| 2 – Pond Area | ~360m$^2$ | ~200m$^2$ | 0.9 | 0.2 |
| 3 – Pond Drying | Never dries | Sometimes dries | 0.9 | 0.5 |
| 4 – Water Quality | Moderate | Poor | 0.67 | 0.33 |
| 5 – Shade | 0-60% | >70% | 1.0 | 0.8 |
| 6 – Waterfowl | Absent | Minor | 1.0 | 0.67 |
| 7 – Fish | Absent | Absent | 1.0 | 1.0 |
| 8 – waterbody count in wider landscape within 500m with suitable terrestrial connectivity | 11 | 11 | 0.95 | 0.95 |
| 9 – Terrestrial Habitat | Good | Moderate | 1.0 | 0.67 |
| 10 – Macrophytes | 20% | <10% | 0.5 | 0.4 |
| **TOTAL** | - | | **0.87** | **0.58** |
| **CATEGORY** | - | | **Excellent** | **Below Average** |

**History**
Surveys on P1 and P2 were completed in 2019, concluding the presence of a 'medium/good' population of GCN across both P1 and P2, with a maximum peak count of 25 across both ponds (Tyrer Ecological Consultants, 2019). Further surveys in 2023 confirmed a maximum count of 7 GCN. Given the previous peak count of 25, and subsequent count of 7, with limitations due to abandoned surveys on P2 as of nesting birds, the population was still considered to be medium/good. Additionally, GCN eggs were found in both ponds, confirming that these ponds are classed as GCN breeding ponds.

**Terrestrial habitat suitability**
The site provides foraging and sheltering opportunities in the form of unmanaged grassland, scrub and hedgerows. Hibernation opportunities are also found within log/rubble piles interspersed throughout the site. There is connectivity to further suitable amphibian habitat within the wider landscape via hedge-lined fields. As such it is likely that reptiles are found on site, particularly with the confirmed presence of GCN in P1/P2 in 2019 and 2023.

*Foreseen Impacts*

When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of 0.1-0.5ha of grassland, scrub and sparsely vegetated land. If great crested newts are present within P1/P2 within 100m of the site, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an **Amber risk score**, which states: **Offence Likely** (see F**igure 1** below):

| **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) | 0.1 - 0.5 ha lost or damaged | 0.5 |
| Land 100-250m from any breeding pond(s) | No effect | 0 |
| 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** | |

If great crested newts are present within P3-P8 >250m of the site, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a **Green risk score**, which states: **Offence Highly Unlikely** (see F**igure 2** below):

| **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) | No effect | 0 |
| Land >250m from any breeding pond(s) | 0.1 - 0.5 ha lost or damaged | 0.005 |
| Individual great crested newts | No effect | 0 |
| | Maximum: | 0.005 |
| Rapid risk assessment result: | **GREEN: OFFENCE HIGHLY UNLIKELY** | |

*Recommendations*

Given the presence of GCN breeding ponds within 100m of the site, a European Protected Species Mitigation License will be required from Natural Resources Wales (NRW) once planning has been approved to allow the development to proceed legally.

Survey data is available for the ponds from 2019 and 2023. As such updated surveys will be required to determine the current population of GCN within P1 and P2. NRW previously agreed to a reduced survey effort (4 bottle trapping surveys instead of 6) during the 2019 surveys. Further, a reduced survey effort was agreed with NRW during the 2023 surveys, with bottle-trapping stopping after the second visit due to the presence of a greylag goose which was subject to disturbance during each visit.

It is recommended that NRW is contacted to determine an agreeable scope of further surveys, as done previously to confirm if historic surveys are sufficient to condition stage 2 surveys for GCN to inform the licence application.

**Suggested biodiversity enhancements**
The site could be enhanced for amphibians post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum

**Badger**

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| *Summary of Survey Findings* | **Biological Record Data:**<br>• Closest record 210m north. 27 entries in total.<br><br>No badger setts were noted on site or within a 30m radius of the site. The site is considered suitable for badgers given the presence of scrub and hedgerows on site, which provide suitable sett excavation areas as well as foraging opportunities. The surrounding hedge-lined fields lead to more suitable badger habitat in the form of parcels of woodland in the local landscape. |
| *Foreseen Impacts* | No works will be undertaken within 30m of a badger sett. Sparsely vegetated land, scattered trees, scrub and other neutral grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present. |
| *Recommendations* | Owing to the nature of the proposed development and the low potential for impacts to badger setts, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:<br>• A toolbox talk will be given to contractors regarding the possible presence of badgers at the site.<br>• A pre-commencement inspection of the site will be undertaken for any new badger activity if works do not commence within three months.<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br><br>In the unlikely event that a badger sett is identified, works must cease and advise must be sought from a suitably qualified ecologist.<br><br>**Suggested biodiversity enhancements**<br>Planting species-rich grassland to increase foraging opportunities for badgers. |
| **Riparian animals** | |
| *Summary of Survey Findings* | **Biological Record Data:**<br>• Otter: Closest record 407m northwest with 20 entries with 2km.<br>• Water Voles: Closest 1702m south with only a single entry.<br><br>A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site. There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.<br>**Otters** |

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| | Although several ponds are found within the local landscape which may provide some foraging and commuting opportunities there is a lack of suitably connected water courses, such as rivers or streams, otters are likely to be absent from the site.<br><br>**Water voles**<br>Pond 1 (P1) within the ownership boundary may provide suitable habitat for water vole, with the densely vegetated banks providing suitable burrow excavation and foraging opportunities. |
| *Foreseen Impacts* | **Otters**<br>The proposed development will not result in the loss of any riparian habitats and no works will be undertaken within 8m of the watercourse (as per Environment Agency regulations). Therefore, no impacts are anticipated on otters as a result of the proposed development.<br><br>**Water voles**<br>No works will be undertaken within 5m of the top of the banks of the watercourse. However, construction activities could result in the death or injury of water voles if present on site for transient periods. |
| *Recommendations* | **Otters**<br>None required.<br><br>**Water voles**<br>Owing to the nature of the proposed development and the low potential for impacts to water voles, further water vole surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:<br>• A toolbox talk will be given to contractors regarding the possible presence of water vole at the site.<br>• Heras fencing will be erected around the working area to prevent encroachment within 5m of P1.<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to the watercourse and any retained habitats which water voles could use.<br>• Best practice pollution prevention measures will be implemented to minimise impacts to the watercourse and any retained habitats that water vole could use.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>In the event that water voles or evidence of water voles is identified, works must cease and advise must be sought from a suitably qualified ecologist.<br><br>**Suggested biodiversity enhancements**<br>Planting species rich grassland close to the watercourse to increase foraging opportunities for water voles. |
| **Hazel dormouse** | |

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| *Summary of Survey Findings* | **EPSL data**<br>A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site.<br><br>**Habitat suitability**<br>Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low. |
| *Foreseen Impacts* | No impacts are anticipated on hazel dormice as a result of the proposed development. |
| *Recommendations* | None foreseen. |
| **Other e.g. hedgehog** | |
| *Summary of Survey Findings* | **Biological Record Data:**<br>• 162m within 2km with the closest entry located 560m north of the site.<br><br>The unmanaged grassland, scrub, sparsely vegetated land, scattered trees and hedgerow provide hedgehogs with suitable foraging and commuting habitat. Further, the site is not subject to significant levels of artificial lighting which reduces disturbance. The site is suitably connected to further suitable hedgehog habitat in the local vicinity via hedge lined fields. |
| *Foreseen Impacts* | Other neutral grassland, sparsely vegetated land, scrub and scattered trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present. |
| *Recommendations* | Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:<br>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.<br><br>**Suggested biodiversity enhancements**<br>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:<br>• Planting fruit bearing trees and species-rich grassland to increase foraging opportunities.<br>• Creation of brash piles or installation of hedgehog houses in shady areas.<br>• Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site. |

**Appendix 1a: Habitat map**



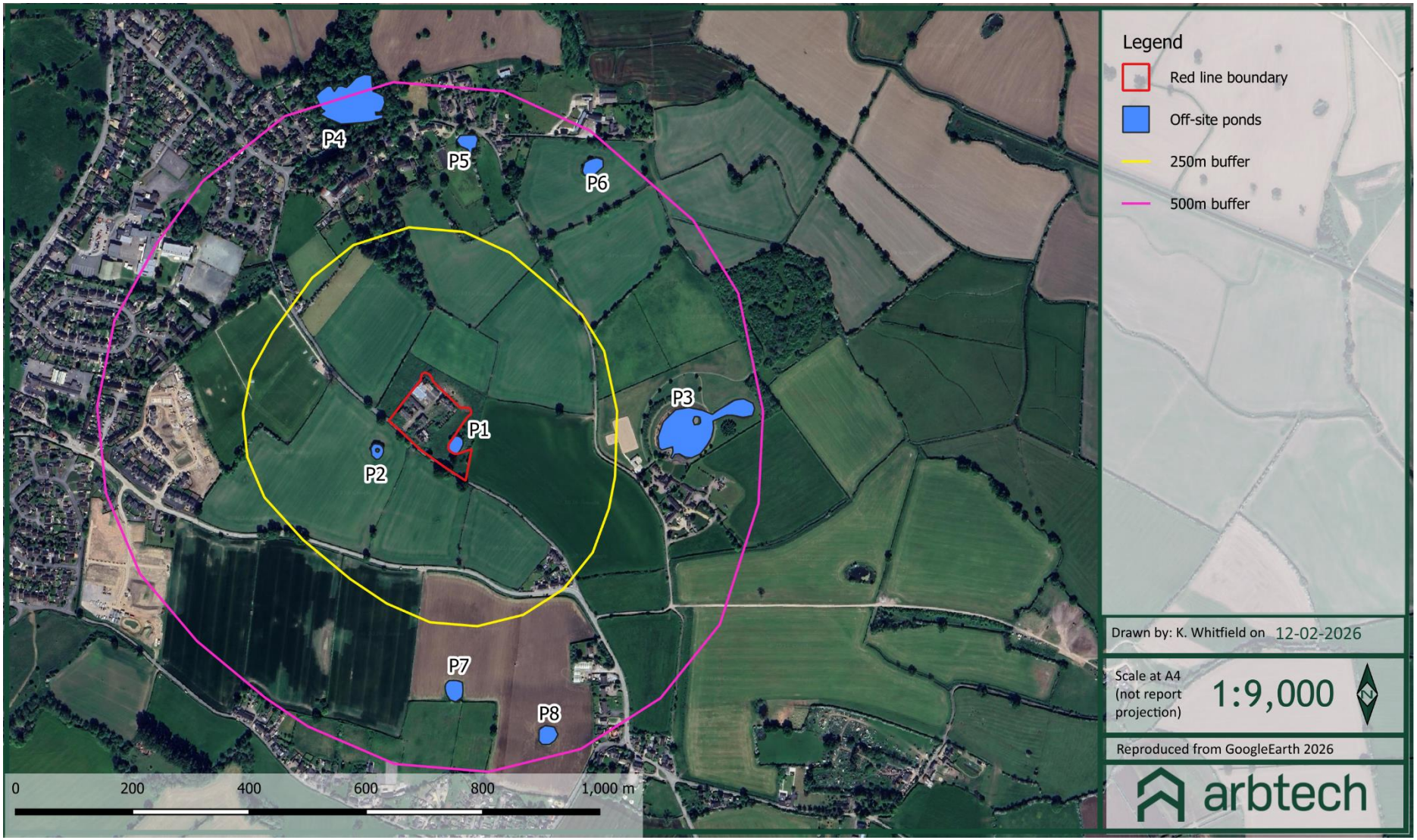
**Appendix 1b: PRA map**



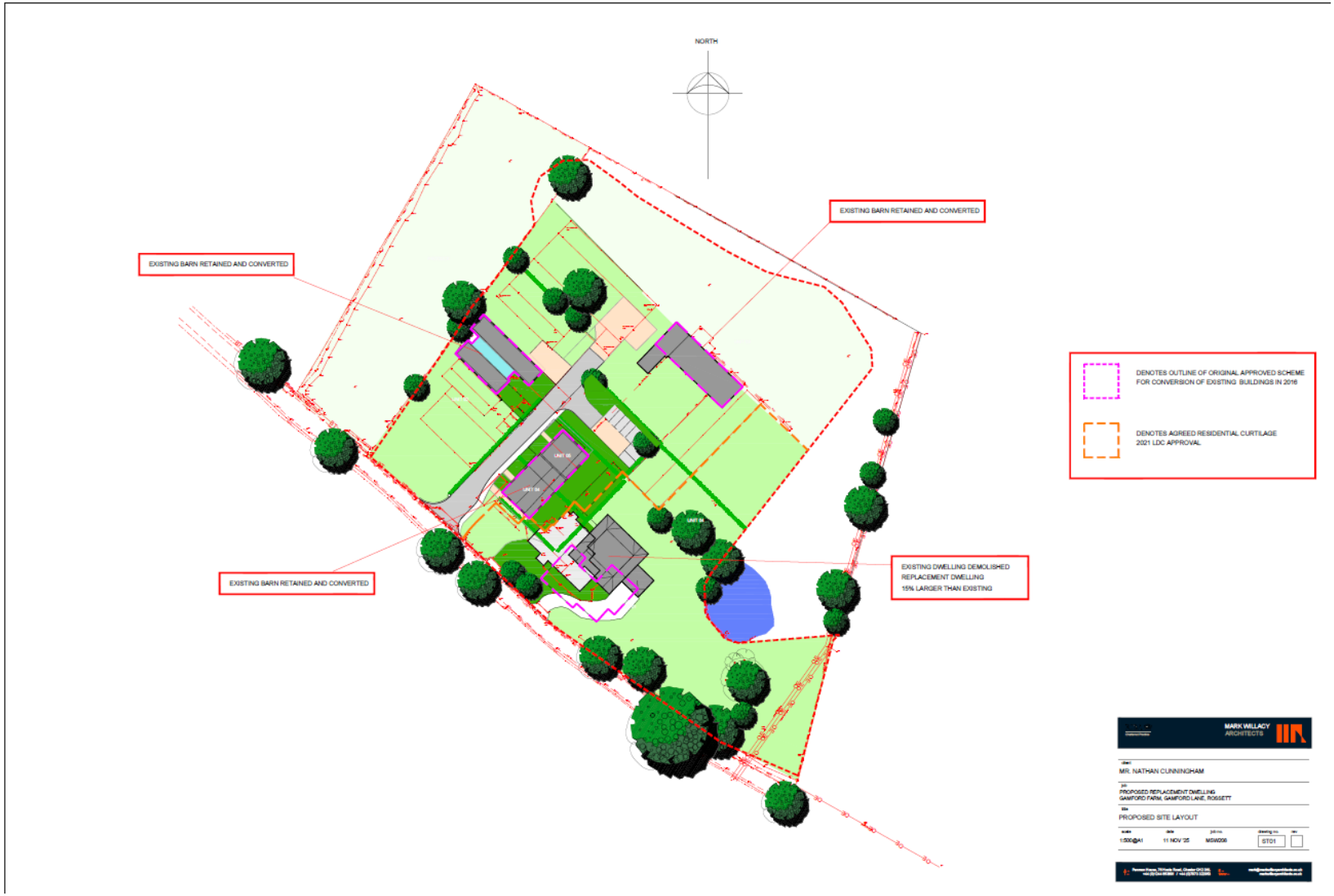
## Appendix 2: Location map



## Appendix 3: Pond map



## Appendix 4: Proposed plan



## Appendix 5: Habitat Photos

| Developed land; sealed surface | |
|---|---|
| **Photograph** | **Description** |
|  | Figure 1: Sealed surfaces to the east of site. |
| **Other neutral grassland** | |
| **Photograph** | **Description** |

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|  | Figure 2: Unmanaged grassland to the east of site. |
| **Scrub** | |
| **Photograph** | **Description** |

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|  | Figure 3: Scrub to the east of site, adjacent to B1 and B3. |
| **Sparsely vegetated urban land** | |
| **Photograph** | **Description** |

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|  | Figure 4: Sparsely vegetated land found centrally within site. |
| **Scattered trees** | |
| **Photograph** | **Description** |

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|  | Figure 5: Scattered trees along the southern boundary of site. |
| **Native hedgerow** | |
| **Photograph** | **Description** |

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|  | Figure 6: Native hedgerow along the southern boundary of site. |
| **Ponds (off-site)** | |
| **Photograph** | **Description** |



Figure 7: P1 to the east within the ownership boundary.

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|  | Figure 8: P8 to the south of the site (off-site). |

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| Review | 0.2 | Leo Plevin BSc (Hons), MSc, MCIEEM Technical Manager | 12/02/2026 |
| Final | 1.0 | Katie Whitfield BSc (Hons) MSc, Graduate Ecologist | 12/02/2026 |
| BRD | 1.1 | Katie Whitfield BSc (Hons) MSc, Graduate Ecologist | 26/02/2026 |