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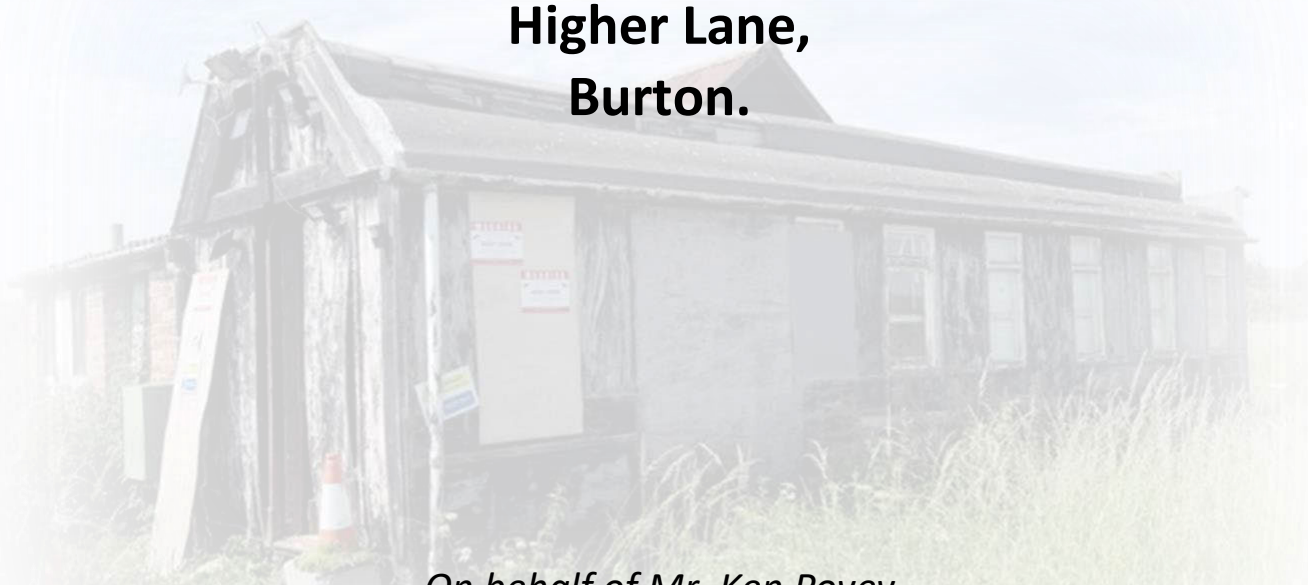
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Leigh Ecology Ltd

Protected Species and Habitat Surveys

Maes Derwen,
Higher Lane,
Burton.



On behalf of Mr. Ken Povey

Preliminary Ecological Appraisal and Bat Roost Assessment

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Contents

1. Executive summary……4

2. Introduction…… 5

2.1 Legislation & Policy……7

3. Methodology……12

4. Results…… 16

5. Constraints and Recommendations……27

6. References…… 30

Appendix 1 – UKHAB Plan
Appendix 2 – Amphibian RAMs

1. Executive Summary

Leigh Ecology Ltd was commissioned to undertake a Preliminary Ecological Assessment (PEA), including a Preliminary Bat Roost Assessment (PBRA), at Maes Derwen, Wrexham.

The site comprises a small dwelling with supporting land. The dwelling on site is a disused mixed-construction building comprising corrugated sheet cladding, brickwork and an incorporated railway carriage. The building is surrounded by tall-swarded grassland, and bramble dominated scrub habitat.

The proposal comprises the change of use of the existing building to become a dwelling with supporting hard standing infrastructure and access.

The building was assessed as offering low suitability for roosting bats. Whilst the majority of the structure is formed of corrugated sheeting which provides few opportunities, localised areas of damaged timber boarding associated with the railway carriage create limited crevice opportunities, but may be suitable for transient, singular or small numbers of bats.

The building sits within a hardstanding area that extends only around the building itself. The surrounding land is predominantly tall other neutral grassland interspersed with clusters of bramble-dominated scrub. The site provides good-quality habitat for invertebrates, with Cabbage White and Meadow Brown butterflies noted during the survey. Dunnock, Blackbird, Blue Tit and Song Thrush were also heard singing during the site visit.

The building is located along Higher Lane, within typical rural habitat between Llay and Rossett. Given the rural location of the site and suitability, connectivity for all

species, an ecological data search was commissioned to identify records of all notable species on and within proximity to site.

The building features signs of damage to exterior boarding mainly, which are suitable features to support bird nesting within the internal composition of the building. These instances of damage were notable PRF's.

2. Introduction

Background

Leigh Ecology Ltd was commissioned by Mr. Ken Povey to undertake a Preliminary Ecological Assessment (PEA), including a Preliminary Bat Roost Assessment (PBRA), of mixed configured building and its associated land known as Maes Derwen, Burton. The site is located at approximate National Grid Reference (NGR) SJ342569, with the site boundary *shown in red on Figure 2.1 below.*



Figure 1; Building Location and Site Extent.

(Google Satellite, 2026).
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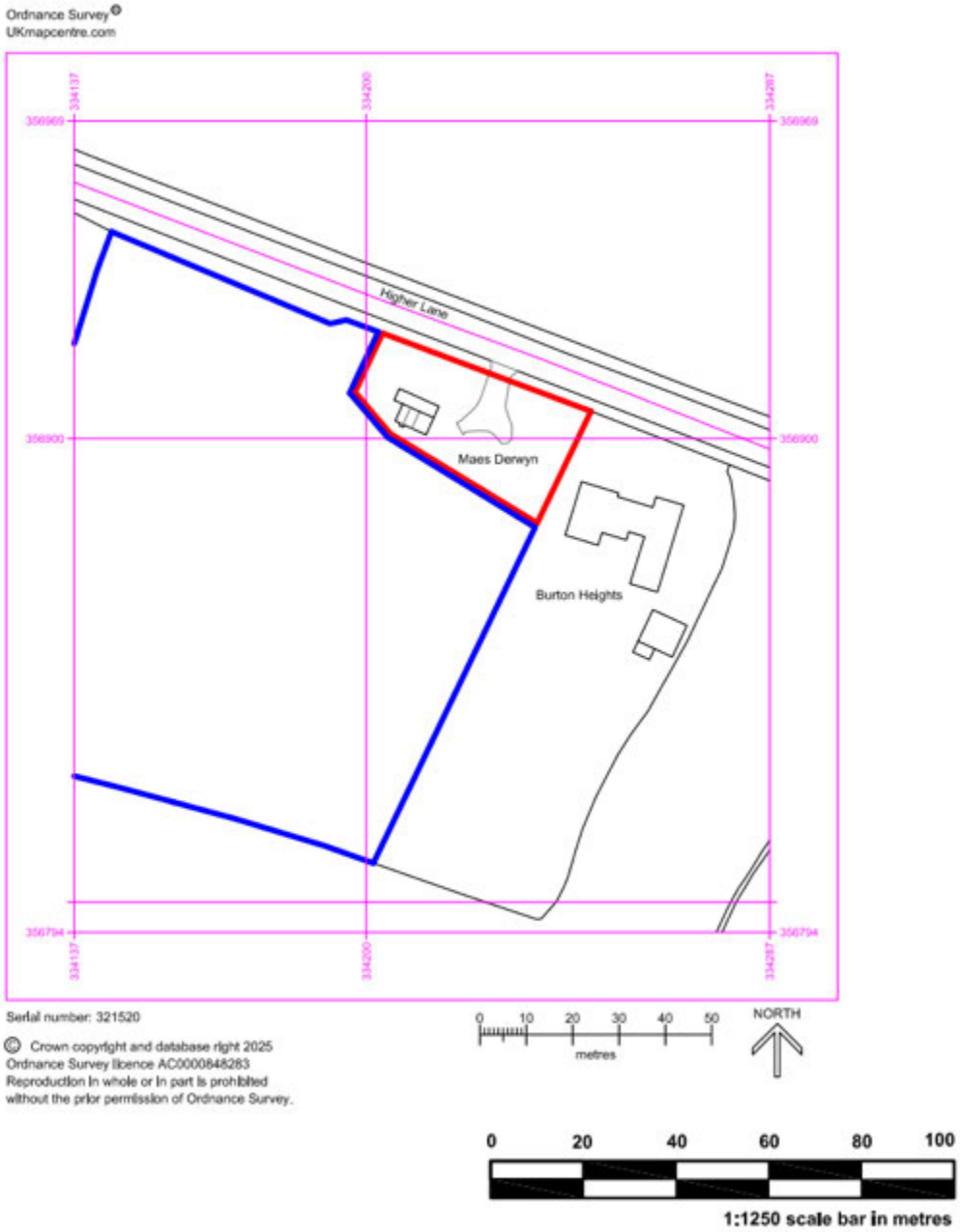


Figure 2; Existing Site plan.

(Go 2 Plan, 2026).
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This report presents baseline ecological information derived from the diurnal appraisal survey. It also provides recommendations for any additional surveys or works required to deliver a comprehensive ecological impact assessment.

The Applicant should be aware that if, during the appraisal:

- The site is found to be suitable habitat for any European Protected Species (EPS), other protected species, or priority habitats/species, or
- Evidence of use by protected species is observed or suspected, or
- Seasonal constraints limit the ability to gather sufficient ecological data for a robust assessment,

then further detailed surveys may be recommended to enable a conclusive assessment of potential ecological impacts.

If protected species are subsequently confirmed during these additional surveys and may be affected by the development, it is likely that a European Protected Species Licence (EPSL) will be required to proceed with development works.

2.1 Legislation & Policy

This report considers the following key legislation and policy relevant to ecological assessment and protection:

Legislative Context (Wales)

Wildlife and habitats recorded or considered during this assessment are protected under a combination of UK and Wales-specific environmental legislation and policy frameworks.

The Wildlife and Countryside Act 1981 (as amended) provides legal protection for a range of species and habitats in Wales. Depending on the species concerned, it is an offence to intentionally kill, injure, take or disturb protected species, or to damage or destroy certain protected plants and animals. Schedule 1 species, including birds such as Barn Owl (*Tyto alba*), receive additional protection against intentional or reckless disturbance while nesting. Schedule 5 protects a range of animals including reptiles and some mammals, while Schedule 8 protects certain plant species. The Act also regulates invasive non-native species (INNS) listed under Schedule 9, making it illegal to plant or otherwise cause these species to grow in the wild.

European Protected Species (EPS), including all bat species and Great Crested Newt (*Triturus cristatus*), are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). These regulations make it an offence to deliberately capture, kill, injure, or disturb these species, or damage or destroy their breeding sites or resting places. Where development may affect EPS, a licence from Natural Resources Wales (NRW) may be required before works can proceed.

[redacted]

In Wales, biodiversity conservation is further supported through the Environment (Wales) Act 2016. Section 6 of the Act places a duty on public authorities to maintain

and enhance biodiversity in the exercise of their functions. Section 7 lists Species and Habitats of Principal Importance for the conservation of biodiversity in Wales, which are key considerations in ecological assessments and planning decisions.

Planning policy in Wales, particularly Planning Policy Wales (PPW) and Technical Advice Note (TAN) 5: Nature Conservation and Planning, requires that development proposals consider potential impacts on protected species and priority habitats. The presence of such species is considered a material planning consideration, and appropriate mitigation or compensation measures may be required where impacts are identified.

Scope of Study

This report includes:

- A preliminary ecological baseline assessment for the site
- Assessment of protected and notable fauna
- An ecological data search was undertaken, including a review of the DataMapWales and MAGIC databases, together with records provided by the local biological records centre. Records were requested within a 1km radius for protected and priority species, and within 2km for bat records. Statutory and non-statutory designated sites were reviewed within 5km of the site.
- Identification of potential ecological constraints to development
- Recommendations for any further ecological work required to support a planning application.

All work was conducted in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct and Good Practice Guidelines.

This legislation is of relevance to protected species identified as having potential to occur within the site, including bats, breeding birds and amphibians.

3. Methodology

A daytime Preliminary Ecological Appraisal (PEA) was conducted on the 22nd of June 2026 in dry and sunny conditions. The survey was undertaken by Roy Leigh (NRW Bat Surveyor; licence no. 5091926-1) and Ecologist Christian Leigh.

Floristic Assessment

The survey employed the UK Habitat Classification Version 2. A referred to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Survey methodology (JNCC, 2010). The approach also followed guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal, 2nd Edition (CIEEM, 2017).

During the walkover, botanical assemblages were recorded, with particular attention given to red-listed species (Stroh et al., 2014), species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, and legally protected plant species listed under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). Species nomenclature follows Stace (2019) for vascular plants, Smith (2004) for mosses, and Dobson (2018) for lichens.

The site was also assessed for invasive non-native species (INNS), as listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981, as amended).

Faunal Assessment

Fauna presence and evidence were documented alongside an assessment of the site's suitability for priority species. The walkover also included searching for ephemeral pools or unmapped waterbodies that could be ecologically significant.

Bats

The site was surveyed for bats, including inspection of buildings (where present) for potential roosting features (PRFs) and signs of use such as droppings, incidental sightings, or prey remains. The inspection utilised a high-powered torch to examine internal and external features, including roofs, eaves, and crevices.

External building inspection

The objective of the survey was to locate any signs of bat activity, for example:

- Bat droppings
- Feeding remains
- Grease staining/ urine marks
- Corpses or skeletons
- Potential access points to internal roosts.

The bat signs listed above are visible from the outside of the building. The following areas were searched using binoculars:

- Ground floor casing
- Any cracks/ holes in the panels
- Between wall panels and framework
- On external panelling, and ridge.

Internal building Inspection

Bats regularly utilise specific areas within roof spaces/open roof configurations (see below), which were searched as a priority for any bat field signs:

- Beneath hip joints and junctions

- Staining above/ around gaps
- Within cobwebs
- Staining around tile gaps
- In cavities of walls within the roof wall joints
- On floor under specific beams and joints
- Wall joints.

Any signs of bird usage including any current live or old nests, droppings, pellets etc. were noted during the bat survey.

All trees (if present) were also assessed for bat roost potential using close-focus binoculars and torches. Potential roost features include woodpecker holes, rot holes, cracks or splits, lifted bark, knot holes, cavities, ivy cover on stems >50mm diameter, and bat or bird boxes.

The assessment criteria followed the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th Edition (2023).

Landscape Assessment for Bats

Linear features such as hedgerows and watercourses, which often serve as bat commuting and foraging routes, were identified and evaluated for potential impacts from development activities.

Breeding Birds

The survey checked buildings, trees, hedgerows, and scrub for nesting birds and nesting suitability. Bird species observed and heard were recorded, along with searches for nests or nesting materials. Special attention was given to species

protected under Schedule 1 of the Wildlife and Countryside Act (1981, as amended), including priority species such as Barn Owl (*Tyto alba*).

Other Mammals

[redacted]

Hedgehog (*Erinaceus europaeus*) was also recorded.

Amphibians and Reptiles

A 250m radius desktop search from the site's central grid reference identified nearby ponds, ditches, or waterbodies potentially supporting Great Crested Newts (GCN). This informed recommendations for any further detailed surveys.

The site was evaluated for reptile suitability by examining features such as south-facing slopes (basking), hibernation sites (e.g., banks, walls, rubble piles), and foraging habitat (e.g., rough grassland and scrub).

Professional Judgement & Constraints

The conclusions and recommendations presented within this report are based on the surveyor's professional judgement, informed by their experience, qualifications, and knowledge of the site's ecological features within the local and regional context.

The survey is considered sufficient to identify the principal ecological features of the site and to inform an assessment of the likely ecological effects of the proposed development.

4. Results

Site Survey

Habitats within the survey area

The results of the Phase 1 Habitat survey are detailed in Appendix 1, with supporting photographs integrated within the text. Habitat descriptions are provided using English plant names for clarity.

Site Overview

The survey area encompasses the entire extent of land shown in Figures 1 and 2. The proposed development comprises the renovation and change of use of the existing building.

The building was found to be in varied condition during the inspection. The timber exterior boarding, panelling and fascia linings were generally in fair condition with cosmetic damage. The external brick wall sections were in good condition across the building. The building is of unusual construction, incorporating a train carriage that forms a substantial section of the structure.

The building occupies a favourable position within a rural landscape and is well connected to linear vegetation features that provide suitable commuting and foraging habitat for bats.

Habitats

The principal ecological feature within the site is the existing building, which was assessed for its potential to support roosting bats through both external and internal inspections. The building exhibits low suitability to support roosting bats, owing to its

mixed condition and varied construction, despite its favourable location within the wider landscape for bat activity.

The building is surrounded by suitable habitat for pollinating invertebrates, comprising clusters of ruderal vegetation, tall grassland and areas of scrub across the wider site. These habitats have developed as a result of the limited management of site vegetation.

The site is bounded to the north by a native species-rich hedgerow, which separates the site from Higher Lane. The hedgerow provides suitable nesting habitat for breeding birds and functions as an important linear feature for commuting and foraging wildlife.

Surrounding Habitats

The site is located within typical rural habitat, dominated by wider grassland, periphery hedgerows and woodland clusters.

Data Search Findings

An ecological data search was commissioned from COFNOD to identify records of notable species within the site and the surrounding area. A summary of the notable records returned is provided below.

Three records of Red Kite (*Milvus milvus*) were returned from within 70m of the site boundary, relating to birds observed using thermals above the site. These records date from 2014. A record of Lapwing (*Vanellus vanellus*) was returned from approximately 380m south of the site, dating from 2018. A record of Brambling (*Fringilla montifringilla*) was also returned from approximately 480m north of the site.

[redacted]

One amphibian record was returned, comprising Smooth Newt (*Lissotriton vulgaris*) approximately 460m south of the site.

Notable plant records include Blue Fleabane (*Erigeron acer*), Cowslip (*Primula veris*), Crosswort (*Cruciata laevipes*), Early Forget-me-not (*Myosotis ramosissima*), Feverfew (*Tanacetum parthenium*), Field Maple (*Acer campestre*), Hedge Bedstraw (*Galium mollugo*) and Wild Teasel (*Dipsacus fullonum*). These records were returned from approximately 500m south of the site.



Photograph 1; A view of the northern elevation of the building, showing the train carriage section. Cosmetic damage was noted to paintwork across the carriage.



Photograph 2; A view of the north-western elevation of the building. The corrugated sheet roof and external wall cladding can clearly be seen.



Photograph 3; A southern view of the building. The walls comprise a mixture of brick and corrugated sheeting, with the brickwork, including the external chimney breast, remaining in good condition.



Photograph 4; A view of the western elevation of the building, showing the external chimney stack. The chimney is in good condition.



Photograph 5; A small pile of bricks and building materials located adjacent to the northern boundary hedgerow. This area supports ruderal, nettle-dominated vegetation within other neutral grassland.



Photograph 6; A view of the other neutral grassland within the site. Common Hogweed, Rosebay Willowherb, Creeping Buttercup, Broad-leaved Dock, Yorkshire Fog, Cock's-foot, False Oatgrass and Perennial Ryegrass were recorded. Clusters of bramble-dominated scrub were also present.



Photograph 7; A view of a scrub-dominated area, characterised by dense stands of bramble and stinging nettle.



Photograph 8; A view of the hardstanding surrounding the building. Vegetation succession has occurred across the northern sections of the site.



Photograph 9; A view towards the northern boundary hedgerow. Goat Willow and Hawthorn are present within the hedgerow.



Photograph 10; An internal view of the train carriage portion of the building. No access to any roof space was present.



Photograph 11; A view of some internal ceiling structure, showing boarding beneath external tin sheeting.

Protected and notable species

Invertebrates

The site comprises predominantly other neutral grassland, which provides suitable habitat for pollinating invertebrates. This habitat will be lost where hardstanding is reinstated to provide parking areas associated with the proposed dwelling. Cabbage White and Meadow Brown butterflies were recorded during the site survey.

Amphibians

Great crested newts (GCN) are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation provides protection to individual newts, as well as the habitats they use for shelter, resting and breeding.

The nearest waterbodies are located approximately 180m north-east of the site,

comprising two adjacent ponds. These could not be assessed for Great Crested Newt suitability as they are located within private curtilage. A larger pond is located approximately 339m north of the site. No records of Great Crested Newt were returned within the search area.

Bats

Surrounding Habitat and Tree Inspection

The site offers excellent connectivity for bat species, and the other neutral grassland provides suitable habitat for invertebrates and therefore foraging bats. The boundary hedgerow also provides an important commuting corridor for bats. Streetlighting was present along Higher Lane, illuminating the boundary hedgerow of site but does not impact the building itself.

Buildings on site

The building is of mixed construction and has been disused for a few years. It comprises external brickwork and brick chimney stack and some corrugated metal sheeting. The building also incorporates an embedded train carriage.

The train carriage is in average condition, with mostly cosmetic damage noted across the exterior. The building offered some Potential Roost Features (PRFs) suitable for a small number of crevice-dwelling bats. The corrugated wall cladding and roof exhibit signs of weathering and localised rusting but remain structurally fair. The external brickwork and chimney stack are in good condition.

No evidence of bat use was identified during the internal inspection. The building does not contain a loft space, and no internal roof voids were present. The internal space is generally open throughout.

The building was therefore assessed as having low bat roost suitability, with limited crevice opportunities restricted to damaged timber cladding associated with the

railway carriage.

Breeding Birds

The building comprises brick, metal sheeting and train carriage which shows signs of wear, offering limited nesting opportunities for small bird species such as House Sparrow. No evidence of active bird nesting was identified within the building.

The northern boundary hedgerow is particularly dense and provides an important boundary feature, offering suitable nesting habitat for breeding birds.

Dunnock, Blackbird, Blue Tit and Song Thrush were heard singing during the site survey.

[redacted]

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the site itself, and the proposed development is therefore unlikely to impact this species.

Other Mammals

The site provides suitable habitat for small mammal species, including hedgehog

(*Erinaceus europaeus*), owing to the presence of dense scrub and unmanaged grassland.

5. Constraints and Recommendations

The proposed development plans include the change of use and renovation of the building.

Positioning, construction and post construction impacts are therefore likely upon both the habitats and species within and immediately adjacent to the site. Ecological constraints and recommendations regarding any development of the site are discussed below.

Non-native invasive species

Invasive Plants

No invasive species of concern were identified on site during the site visit.

Protected Species

The site comprises a building of mixed construction incorporating an embedded train carriage with brick, timber and corrugated metal wall cladding. The building is surrounded by overgrown grassland that has naturally succeeded to other neutral grassland, with dense clusters of bramble scrub and stinging nettle.

The building was assessed as offering low bat roost suitability, owing to the predominantly unsuitable construction of the building. However, exposed timber cladding associated with the train carriage provides limited Potential Roost Features (PRFs) suitable for small numbers of crevice-dwelling bat species.

Bats

In accordance with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition, 2023), one dusk emergence survey is recommended to determine the presence or likely absence of roosting bats within the building. The survey should be undertaken between May and August inclusive, during suitable weather conditions, with temperatures preferably above 10°C at sunset and no prolonged rain or strong winds. This survey must be completed before any works capable of affecting potential bat-roosting features commence.

Birds

To comply with the Wildlife and Countryside Act 1981 (as amended), vegetation clearance and building works should, where possible, be undertaken outside the bird nesting season to avoid impacts on breeding birds.

If works are required during the nesting season, a pre-commencement nesting bird check should be undertaken by a suitably qualified ecologist. This should include all vegetation proposed for removal, together with suitable nesting features on the building, including ledges and other external features that could support nesting birds.

Where an active nest is identified, works in the vicinity must cease and an appropriate buffer maintained until the nest is no longer active and all young have fledged.

Amphibians

The site contains small piles of bricks and building materials, together with extensive tall grassland, which provide suitable terrestrial habitat for amphibians. Although no records of Great Crested Newt were returned during the ecological data search and

the nearest waterbody is located approximately 180m from the site, it is recommended that Reasonable Avoidance Measures (RAMS) are implemented throughout all stages of the development as a precautionary safeguard for amphibians, including Great Crested Newt, should they be present.

Reptiles

No reptiles were observed during the survey. The material piles provide suitable refuge habitat for reptiles; however, no reptile records were returned by the ecological data search. The precautionary working methods outlined within the RAMS will also provide adequate safeguards should reptiles be present.

[redacted]

Other Mammals

No evidence of other mammal species was identified during the survey. Other mammal species are not considered to represent a constraint to the proposed development.

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Appendix 1- UKHABS Map.



Appendix 2

Amphibian Safeguarding Method Statement

This method statement should be followed for the initial phase of works within the site, which may affect the surrounding terrestrial habitat. Minor or short term destructive or disturbance works will also follow this Method Statement to ensure legal compliance and to
ensure the favourable conservation status of the species is not compromised.

The following measures will be adopted throughout the construction period of the proposed development.

- A toolbox talk covering the following points will be presented to the developer undertaking the construction activities;

- A fingertip search by a licensed ecologist of the proposed construction area immediately prior to any turf removal;

- Should any trenches or excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than 45 degrees in angle. Ideally, any holes should be securely covered;

- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling;

- There will be no impacts on surrounding hedgerows. All hedgerows will be maintained throughout the construction programme;

- Any excavated material should be placed on boards or sheeting to reduced damage to the grass sward (if present). If left overnight this material should be searched prior to being used as infill;

• Back filling should be completed immediately after any excavations, ideally back filling as an ongoing process to the work in hand;

• If a GCN is found during the construction activities, work must stop immediately and contact should be made with a licensed, qualified ecologist, who will liaise with NRW.