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PRELIMINARY ECOLOGICAL APPRAISAL AND GREEN INFRASTRUCTURE STATEMENT

VACANT LAND BRIDGE STREET, WREXHAM

20 March 2024

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This report has been prepared by Sambrook Associates Ltd on behalf of Cassidy and Ashton in connection with the development at Bridge Street, Wrexham and takes into account their particular instructions and requirements. It is not intended for, and should not be relied on, by any third party and no responsibility is undertaken to any third party.

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1 INTRODUCTION

1.1 Background Information

- 1.1.1 Sambrook Associates Ltd was instructed by Cassidy and Ashton to undertake a Preliminary Ecological Appraisal (PEA) in relation to the construction of an apartment block, associated car parking and landscaping on vacant land off Bridge Street, Wrexham.
- 1.1.2 As part of the Appraisal, a site walk-over comprising an extended phase 1 habitat survey of the Site and a desktop study were undertaken in 2024. This report provides the results of these, as well as an appraisal of the potential effects the proposed development may have on biodiversity, and recommendations for further survey, mitigation and enhancement, where required. A Green Infrastructure Statement is also included in this report.
- 1.1.3 The aim of the appraisal is to provide sufficient ecological information to inform the planning application. The objectives of the study were to:
- Provide baseline information on the current ecological features both on-site and in the immediate surrounding area (up to 30m where accessible);
 - Identify the presence or potential presence of any protected species or habitats and provide an appraisal of potential effects that the proposed development may have on these;
 - Identify the proximity of any sites designated for nature conservation interest and provide an appraisal of potential effects that the proposed development may have on these; and
 - Provide recommendations for further survey work and / or mitigation measures if required and present opportunities for habitat enhancement.
- 1.1.4 In consideration of the nature of the proposed work (principally constructing within an urban environment between existing buildings), the assessment focuses on bats and birds but habitats and other mobile species such as great crested newts and badgers are also assessed.

1.2 Site Description

- 1.2.1 The Site is on Bridge Street in the middle of Wrexham City Centre. It is vacant brownfield land between other buildings.
- 1.2.2 The proposed development is hereby referred to as the Site and comprises the land within the red-line boundary. The walk-over survey covered an area greater than this (where access permitted) for mobile species such as great crested newts, badgers, water vole and otter and to look at how nearby habitats may influence the use of the building by bats.

2 LEGISLATION AND PLANNING POLICY

2.1.1 Many sites, animals and plants are protected by European and/or UK legislation either because of their decline across Europe and the UK or due to the persecution they have placed upon them by negligent or illegal acts such as baiting or trade. Legislation is also in place to prevent the spread of introduced or non-native invasive species and harmful weeds. When undertaking an appraisal of a proposed development, such legislation is taken into account as follows.

- **European:** Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'); and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (the 'Birds Directive').
- **UK (England & Wales):** The Conservation of Habitats and Species Regulations 2017, as amended (the 'Habitat Regulations') which transposes the Habitats Directive in UK law. Since 1st January 2021, the UK is no longer a member of Europe but since the Habitats Directives are embedded into UK statute, The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 was published and still applies in England and Wales; The Wildlife and Countryside Act 1981 (as amended); the Countryside and Rights of Way Act (CRoW) 2000; the Protection of Badgers Act 1992; the Natural Environment and Rural Communities Act (NERC) (2006) and the Environmental Protection Act (EPA) 1990.

2.1.2 Species such as bats, great crested newts, otter, water vole, reptiles, birds and badgers are all protected to varying degrees under this legislation.

2.1.3 In addition to legislation, there are also national and local planning policies pertaining to the protection of biodiversity. The National Planning Policy Framework (Department for Communities and Local Government, 2019) states *'development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'*.

2.1.4 Under the NERC Act, local authorities (and other public bodies) have a duty to conserve biodiversity. The Act confers responsibility on the local authority to take the protection of priority habitats and species (as listed in Section 41) into consideration when making a planning decision. Habitats listed in this section include eutrophic standing waters, rivers, lowland meadows and lowland mixed deciduous woodland. Species listed in this section include great crested newt *Triturus cristatus*, sky lark *Alauda arvensis*, hedgehog *Erinaceus europaeus*, otter *Lutra lutra*, soprano pipistrelle *Pipistrellus pygmaeus* and red squirrel *Sciurus vulgaris*. Full habitats and species' lists can be found at the Natural History Museum website, nhm.ac.uk or jncc.defra.gov.uk.

2.1.5 The RSPB's Birds of Conservation Concern 3' (Eaton et al., 2009) is also taken into consideration when undertaking this appraisal.

- 2.1.6 Because of the type of development proposed, it is usual that bats are the most likely animals affected and so the legislative and licensing obligations pertaining to bats are described in more detail below.
- 2.1.7 All bat species are protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The species is also protected under Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive). This has been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales. Bats are referred to as European Protected Species (EPS).
- 2.1.8 It is an offence to deliberately capture, injure or kill a bat; intentionally or recklessly disturb in a way that would affect their local distribution or abundance, or affect their ability to survive, or breed. It is also an offence to damage or destroy a bat roost and to possess, advertise, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.
- 2.1.9 If you wish to undertake works that would affect an EPS then you will need a licence. Natural England (NE) and Natural Resources Wales (NRW), in exercise of the powers conferred under regulation 53(1) and 56(3) (a) of the Conservation of Habitats and Species Regulations 2017, may issue licences for the following purposes:
- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
 - Preventing the spread of disease;
 - Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal;
- 2.1.10 Before issuing a licence under the Habitats Regulations, the licensing authority must be satisfied that “there is no satisfactory alternative” to the work as proposed and, that the proposed actions “will not be detrimental to the maintenance of the population of the species at a favourable conservation status (FCS)”.
- 2.1.11 To ensure these requirements are met, the licensing authority must have enough information to complete an assessment of the application. This includes sufficient survey data so that the roost and how it is used by bats is understood and impacts upon the roost are appropriately assessed so that mitigation and/or compensation can be designed into the proposed development that will ensure the bat population can be incorporated and maintained in the long term.

3 METHODOLOGY

3.1 Introduction

3.1.1 To inform this Ecological Appraisal, a site walk-over survey was conducted on 26 January 2024 which comprised recording of habitats within the Site and an external inspection of the boundary walls for bats (i.e. a bat scoping survey) and birds. The survey also included potential for protected and notable species, and invasive species such as Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*. In addition to this, a desk-top study was also undertaken.

3.2 Desk-top Study

3.2.1 The desktop study involved publicly available data searches for statutory and non-statutory sites, legally protected species and other features of interest within a 1km radius of the site. The centre of the site (Ordnance Survey Grid Reference SJ33375011) was used for the data search.

3.2.2 The following sources were searched for information about the Site:

- Defra's 'MAGIC' website;
- Google Earth;
- Bing Maps; and
- Wrexham Council website.

3.3 Walk-over Survey

3.3.1 The purpose of the survey was to determine:

- the habitats present;
- legally protected species potentially present;
- the presence of invasive plant and animals;
- any potential constraints to development; and
- any requirement for additional ecological surveys.

3.3.2 Mick Smith of Wildbanks Conservation Ltd on behalf of Sambrook Associates Ltd. carried out the walk-over survey of the Site on 26 January 2024. The weather was cool with an average temperature of 9°C.

3.3.3 The survey was not a full Phase 1 Habitat survey; due to the urban nature of the site, this was considered unnecessary. The Site and immediately adjacent areas (up to 30m) were searched for evidence of protected species that may occur in this area such as bats, birds, great crested newts *Triturus cristatus*, badgers *Meles meles*, otters *Lutra lutra*, and water vole *Arvicola amphibious* and any invasive plants or animals.

3.3.4 Photographs are included within this report. Plant names follow the third edition of the New Flora of the British Isles (Stace, 2010). The common name of the plant is stated first and is followed by the Latin name, on the first occasion that it is used. Only the common name is used subsequently.

3.4 Bat Scoping Survey

3.4.1 The survey followed the methodology set out in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, J. (ed.) 2023). The survey was carried out by Mick Smith (NRW bat licence- 77555:OTH:CSAB:2018).

3.4.2 The walls of the site were inspected for any gaps, cracks or crevices that bats may exploit.

3.5 Limitations

3.5.1 No significant limitations were encountered during the survey. Although the survey was undertaken outside of the core survey season, given the nature of the site, it is not considered to have caused a limitation in the results and interpretation.

4 RESULTS

4.1 Introduction

4.1.1 This section provides a commentary on the data collected during the desk-top study and survey undertaken in 2024.

4.2 Desk-top Study

4.2.1 There do not appear to be any statutory or non-statutory sites within the assumed 1km zone of influence of the proposed site. Protected sites are not considered further.

4.2.2 There do not appear to be any ponds within 250m of the proposed site.

4.2.3 The Council planning portal did not reveal any pertinent information and there do not appear to be any current adjacent developments that would likely cause any in-combination effects with the proposed Site.

4.3 Walk-over Survey

4.3.1 The Site comprises a vacant piece of rough waste ground within Wrexham City Centre. The site is surrounded by brick or sandstone walls on the northern (partial), western and southern boundaries and Heras fencing to the eastern boundary, along the road.

4.3.2 In summary, the ground is largely covered in grass with other ruderal species including cock's foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, creeping bent *Agrostis stolonifera*, creeping buttercup *Ranunculus repens*, spear thistle *Cirsium vulgare*, bramble *Rubus fruticosus*, white clover *Trifolium repens*, nettle *Urtica dioica* and dandelion *Taraxacum sp.* Also present are buddleia bushes across the ground and on walls with very occasional silver birch *Betula pendula* and elder *Sambucus nigra*.

4.3.3 Overall, the habitat is classed as tall ruderal which has formed over hard standing/bare ground due to limited management.

4.3.4 No evidence of non-native invasive or harmful weeds such as Japanese knotweed or Himalayan balsam was identified during the survey.

4.3.5 The walls on south and west are crumbly in places with some missing bricks, but these do not provide sufficient opportunities for roosting **bats**. Similarly, the adjacent buildings do not appear to support potential roosting features that could be affected by the proposals.

4.3.6 The buddleia growing out of the wall in the south-west corner creates some cover for nesting **birds** such as pigeons, doves and black birds.

4.3.7 The site supports habitat that is suitable for **great crested newts**, **badgers**, **hedgehogs** and **reptiles** but given the isolated and urban nature of the site, it is highly unlikely to support these and they are not considered further.

4.3.8 The site does not support suitable habitat for **otter** or **water vole** and these are not considered further.

4.3.9 Photographs of the site are provided in Table 4.1 below.

Table 4.1: Photographs of the Site





4.4 Appraisal of Potential Effects

- 4.4.1 The proposal comprises the clearance of the site and construction of an apartment block with associated car parking and soft landscaping; solid boundary features will remain in-situ.
- 4.4.2 All of the tall ruderal habitat will be lost as a result of the proposed development. This habitat is unlikely to support significant faunal species given its location, but nevertheless does have inherent value in an otherwise urban landscape. To compensate for the loss of this habitat, it is proposed to create an area of species rich grassland along the western/northern boundary of the site, interspersed with fruit trees. To ensure the long-term viability of the newly created habitat, it will be managed in the long term.
- 4.4.3 Overall, the Site itself offers opportunities for nesting birds, but other protected and notable species are highly unlikely to be present. Bat surveys conducted over the course of a few years for an adjacent development found there to be limited to no bat activity in this area.
- 4.4.4 Even in urban environments where bats may, from time to time, fly through and around, it is best practice to avoid impacts on bats and their habitats, and other species including birds and invertebrates, by maintaining as far as practicably possible, a dark environment above 2.5m height. This can be achieved by ensuring the lighting scheme is sensitive to the requirements of

bats (and other species) and designed in accordance with the current guidance jointly issued by the Institution of Lighting Professionals and Bat Conservation Trust; Guidance Note 08/18: Bats and Artificial Lighting in the UK.

- 4.4.5 No active bird nests were identified in the vegetation, but it is possible birds may nest in the buddleia at some point between the survey and start of proposed works. It is advised that the disturbance and/or destruction of breeding birds and their nests is illegal under the Wildlife and Countryside Act 1981 (as amended). If any nests are built between the survey and the outset of works, and the nest is likely to undergo any disturbance, an ecologist should be contacted for advice. If nests are identified, the nests must remain intact and undisturbed until young have fledged. Any vegetation required to be removed, must be done outside of the nesting bird season which includes the months of March to August inclusive, unless the vegetation is first checked by an experienced ecologist and no nests are found.
- 4.4.6 To address the impacts identified above, mitigation and compensation will be implemented to ensure that there is no net loss of biodiversity in the long term. See Green Infrastructure Statement in Section 5.

5 GREEN INFRASTRUCTURE STATEMENT

5.1 Assessed Losses

5.1.1 The proposed development will result in the loss of:

- Approximately 1,345m² of tall ruderal habitat;
- Bird nesting opportunities.

5.2 Proposed Biodiversity Net Benefit

5.2.1 The proposed development includes a soft landscaping scheme which will be created with a biodiversity focus. The screenshot below shows the area of proposed landscaping (taken from Proposed Car Park Plan (Cassidy + Ashton, Jan 24, PL03)). Within this green area, the following will be undertaken:

- Creation of approx. 148m² of neutral grassland by sowing a wildflower seed mix such as Emorsgate EM2 Standard General Purpose Meadow Mixture or similar.
- Planting of 5no. trees comprising 3no. wild cherry *Prunus avium* and 2no. crab apple *Malus sylvestris*.
- Installation of 3no. wooden bird boxes on the western boundary wall within the landscaping area and/or on the rear of the apartment block, at least 4m high to reduce the risk of human interference, and out of artificial light.



5.2.2 The above habitats will be created and managed as per the specification below.

Habitat Creation Specification & Management Plan	
Site:	Vacant Land, Bridge Street, Wrexham
Notes	All operatives will be appropriately trained, certified and qualified to undertake the tasks required. All work is to be carried out in accordance with the relevant British Standards, Codes of Practice and Legislation.
Proposed Habitats:	Neutral grassland: wildflower seed mix such as Emorsgate EM2 Standard General Purpose Meadow Mixture or similar (depending on availability). Fruit trees: 5no. trees 3no. wild cherry and 2no. crab apple. Girth/Dia: 12-14cm, Height: 350-425cm, Root Zone: RB.
Ground Preparation	Create a planting bed to a depth of 1m and fill with subsoil (700mm) and topsoil (300mm). This will be a sufficient depth to support trees and also be suitable for the creation of the grassland. Topsoil to be the top layer which should be raked to produce a fine tilth.
Sowing/Planting	<p>Trees are to be planted first, and then the grassland can be sown.</p> <p>Trees:</p> <p>Tree pits of at least 75cm diameter greater than the root system and no deeper than the container shall be excavated and the sides well scarified to prevent smearing.</p> <p>The root system of the tree should be wetted prior to planting. The tree should be planted at the correct depth taking into account the position of the root flare and the finished level - the rootball or root stem transition should be level with the existing host soil or surface. The base of the rootball should typically sit on subsoil, for larger rootballs the subsoil will sit around the lower portion of the rootball.</p> <p>Tree pits should be backfilled with 1 part excavated topsoil and 2 parts tree planting compost. At each stage the fill should be firmed in to eliminate all air pockets under and around the root system, but with care being taken not to excessively compact the soil. The final layer should not be consolidated.</p> <p>Apply a general-purpose slow release fertiliser (at the rate of 75gm/m²) and Tree Planting and Mulching Compost at the rate of (20litres/m²) are to be incorporated into the top 150mm of topsoil during final cultivations.</p> <p>All trees are to be double staked with 75mm dia stakes with rubbers and spacers. Stakes should be driven at least 300mm into the ground before planting the tree, taking care to avoid underground services and cables etc. and should typically be one third the height of the tree stem above ground. Staked trees shall be secured to stakes with suitable proprietary rubber tree ties and spacers.</p>

	<p>Immediately after planting, but before applying the bark mulch, all trees should be saturated.</p> <p>Grassland: Seed to be sown in the autumn (September to October) or spring (March-April) providing there is sufficient warmth and moisture. The seed must be surface sown and is to be applied by machine or preferably broadcast by hand. Press the seeds into the ground and if necessary, cover with a layer of topsoil, not exceeding 1cm in depth. During the establishment phase, in very dry conditions, the seed beds may need irrigation. Sowing rate of 40kg/ha.</p>
<p>Year 1 Management</p>	<p>Trees: Top up mulch to ensure a 50mm layer around tree bases is maintained. Replace any dead, dying, damaged stock with same species of similar size. Adjust ties and stake as and when required; the need for this must be checked annually.</p> <p>Grassland: Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds which can look unsightly, but they will offer shelter to the sown seedlings, are great for insects, and they will die before the year is out. Cut the annual weeds in August, then remove and compost. This will reveal the young meadow, which can then be kept short by mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.</p>
<p>Year 2-30 Management</p>	<p>Trees: Top up mulch to ensure a 50mm layer around tree bases is maintained. Replace any dead, dying, damaged stock with same species of similar size. Adjust ties and stake as and when required; the need for this must be checked annually.</p> <p>From Year 3, landscape contractor to check for the need to prune to encourage a good shape.</p> <p>Grassland: In the second and subsequent years, grassland will be managed by traditional meadow management based around a main summer cut in combination with autumn and possibly spring mowing.</p> <p>The meadow grassland is not to be cut from late April through to late August to give the sown species an opportunity to flower. After flowering in August mow to a height of c 50mm. Leave the arisings to dry and shed seed for 3 days then remove from site, or compost.</p> <p>Mow the re-growth through to late autumn/winter to c 50mm and again in spring, if needed.</p>

6 CONCLUSION & RECOMMENDATIONS

- 6.1.1 The site has been the subject of a Preliminary Ecological Appraisal in 2024 which concludes that the Site is of limited ecological value to protected and notable species, but does provide nesting bird opportunities.
- 6.1.2 The following requirements are made in respect of bats.
- **Requirement:** a bat sensitive lighting scheme should be designed in accordance with the current guidance jointly issued by the Institution of Lighting Professionals and Bat Conservation Trust; Guidance Note 08/18: Bats and Artificial Lighting in the UK.
- 6.1.3 The following recommendations are made in respect of birds.
- **Recommendation:** to prevent impacts on nesting birds, vegetation removal shall occur outside of the nesting bird season i.e. not during the months of March through to August inclusive. If vegetation removal is required during this time, the vegetation shall first be checked by a competent Ecologist and only if no nests are found can vegetation be removed. If nests are found, they will remain in-situ and undisturbed until the young have fledged.
 - **Recommendation:** it is recommended that three wooden bird nest boxes (suitable for passerines) are installed on the walls within the soft landscaping area, and/or on the rear of the apartment block, away from artificial lighting.
- 6.1.4 To provide a biodiversity net benefit, the following recommendation is made.
- **Recommendation:** the ecological landscaping scheme is to include the sowing of species rich grassland and planting of fruit trees as per the specification provided in Section 5 above.
- 6.1.5 Taking into consideration these recommendations, long term negative effects on biodiversity are not anticipated and the proposed development actually gives rise to biodiversity enhancement opportunities within the Site, improving biodiversity at a local level.

7 REFERENCES

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