Green Infrastructure Statement

39 Clifton Avenue

Prepared for:	Peter Healey
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Summary

Site Address:	39 Clifton Avenue, Brymbo, Wrexham, LL11 5FS
Survey effort:	- No survey undertaken
Survey date:	- Not Applicable
Surveyors:	Daniel Howgego - accredited under David Nixon (Bat licence ref S093663/1)
Evidence of protected species/habitats found?	- **No evidence of protected species or habitats.**
Planning Policy Wales (PPW) 2024	- **No significant harm to biodiversity will occur because of the development.** - **No impacts to an SSSI will occur because of the development.** - **No irreplaceable habitats will be lost or damaged because of the development.** - **Biodiversity will be enhanced on the site (see below).**
Opportunities for ecological enhancement:	- 1x Bat box - 1x Bird box

Document Control

Status	Version	Name of Author/Reviewer	Date
Draft	V1	Daniel Howgego BSc (Hons), MSc, ACIEEM	07/02/2026
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Final	V1	Daniel Howgego BSc (Hons), MSc, ACIEEM	07/02/2026

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Aware Ecology Ltd does not guarantee that the site is free of protected species or that the proposed client works will not negatively impact protected species or designated sites within or outside the site boundary. This report's recommendations aim to minimise any impact on protected species or designated sites and provide advice on the steps required to complete the work legally.

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1 Introduction

1.1 Policy Background

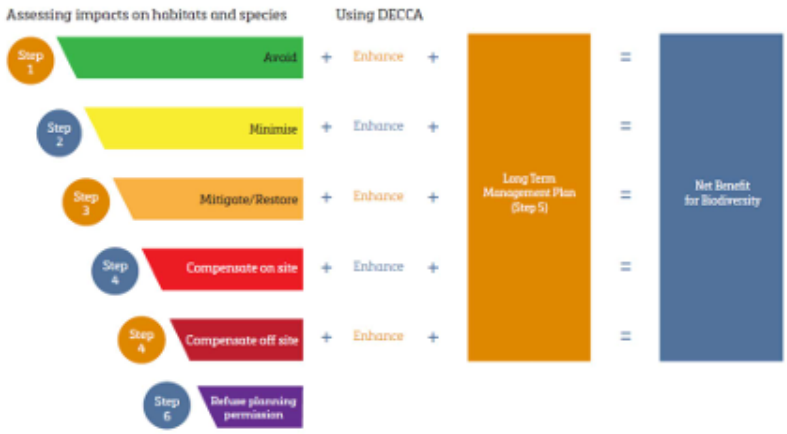
Aware Ecology Ltd was commissioned by Peter Healey to complete a Green Infrastructure Statement (GIS) for '39 Clifton Avenue, Brymbo, Wrexham, LL11 5FS' (hereafter referred to as 'the site' or 'site').

This GIS aims to respond to the requirements of Chapter 6 of Planning Policy Wales (Edition 12, 2024). This states:

- 6.2.11 The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design. With careful planning and design, informed by an appropriate level of assessment, green infrastructure can embed the benefits of biodiversity and ecosystem services into new developments and places, help overcome potential conflicts of objectives, and contribute to health and well-being outcomes.
- 6.2.12 A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. For minor development, this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way to demonstrate positive, site-appropriate multi-functional outcomes and must be used to show how the step-wise approach (Paragraph 6.4.15) has been applied.
- 6.2.13 There are multiple ways of incorporating green infrastructure, depending on the needs and opportunities a site presents, and the green infrastructure assessment should be referred to, as appropriate, in order to ascertain local priorities. Landscaping, green roofs, grass verges, sustainable drainage, and gardens are examples of individual design measures that can have wider cumulative benefits, particularly for biodiversity, ecosystem resilience, and the other desired environmental qualities of places. Wider landscape measures, such as creating species-rich meadows and woodlands, and improving linkages between areas of biodiversity value, should be considered for larger-scale development. In most cases, the green infrastructure statement should highlight any baseline data considered and surveys and assessments undertaken, including, but not limited to, habitats and species surveys, arboricultural surveys and assessments, sustainable drainage statements, landscape and ecological management plans, open space assessments, green space provision, and active travel links.

The 'step-wise approach', as outlined below, demonstrates the sequential approach that has been adopted as part of the proposed development to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and, as a last resort, compensated for. In addition, enhancement has been secured by delivering a net biodiversity benefit on-site, in addition to that required to mitigate or compensate for any negative impacts.

Figure 1. The Step-wise approach as outlined in Chapter 6 of the PPW (12th Ed, 2024)

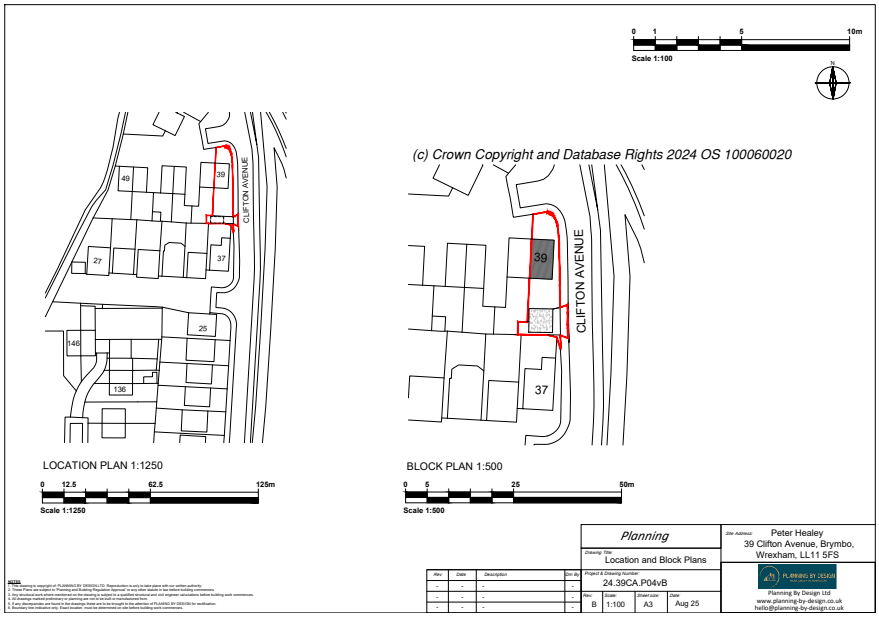


1.2 Site Description

The site is at the national grid reference SJ 29539 53216 in Brymbo, Wrexham. It is located in a semi-urban landscape surrounded by residential dwellings, agricultural land, and grassland. The broader landscape comprises arable and pastoral fields, treelines, mature hedgerows and woodland.

It is understood that planning approval is sought for the construction of a garage and driveway on the site.

Figure 2. Location of the site



1.3 Scope of Use

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The findings in this report are based on conditions observed during the survey. If more than two years have passed, updated advice should be sought. The survey and report follow the CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition, December 2017, and BS42020.

2 Green Infrastructure Baseline

2.1 Designated Sites

One statutorily designated site is within 2km of the proposed development site, as shown in Table 1.

Table 1. Summary of statutory and non-statutory designated sites up to 5km from the site

Designated Site	Distance from Site (km)	Reason(s) for Designation
Statutory Designated Site		
Coedwig Ffosil Brymbo Fossil Forest SSSI	0.1km N	Exposures at Brymbo comprise approximately 14 m of Upper Carboniferous Duckmantian Coal Measures that contain an internationally important plant fossil assemblage.

2.2 Habitats

The survey area was found to contain predominantly two habitat types as classified according to UKHab; these include:

- Developed Land; Sealed Surface (u1b) – existing driveway
- Modified Grassland (g4) – regularly managed lawn

2.3 Protected/Notable Species

Due to the lack of vegetation cover and high levels of disturbance around the site, there is limited suitability for protected or notable species to use the site for refuge, nesting or foraging.

3 Green Infrastructure Strategy

The enhancements in this report aim to meet the requirements set out in *Policy 9 of the Future Wales National Plan 2040,* which requires enhancing existing biodiversity and creating new biodiversity features on site.

3.1.1 Species Enhancement

The site will be enhanced for nesting birds and roosting bats by installing one artificial bird box and one bat box on suitable features at the site perimeter or on the buildings themselves. Various durable, woodcrete bat and bird boxes will be installed, including maintenance-free boxes suitable for trees (see Appendix).

The bat box will be placed on the south-east to south-west aspects, with linear features nearby, to allow bats to disperse undisturbed to local foraging habitat, and in positions where the entrance is not artificially illuminated at night (enabled by the provision of the 'dark corridor'). Boxes will be positioned at least 3m above the ground.

The bird boxes will be in secluded positions, ideally near vegetation, and at a minimum height of 3 metres above ground level.

It is also recommended that insect bricks (or similar materials) be incorporated into the design or placed on site.

Table 2. Compensation enhancement measures

Species	Enhancement Type
Bats	- 1x Integrated/external bat box[1]
Birds	- 1x Bird box
Other Species	- Invertebrate habitat features (e.g. bug hotel, solitary bee boxes) - Wildlife friendly planting (i.e. wildflowers good for nighttime flying insects)
Lighting	- Keep it to essential lighting only that is directional rather than floodlights - Use motion sensors/timers and hoods to limit unnecessary illumination

[1] To be placed following guidance from Bat Conservation Trust Bat Box Information Pack (2018) e.g. at least 4m high facing south, southeast or southwest. Summer maternity roosts in the Northern Hemisphere often face south or westerly aspects for maximum solar heating. Male roosts and hibernation sites typically have a northerly aspect (BCT

use Martin cups should be placed at the gable apex or under the eaves/soffit where there is a deep overhang, this should be facing north, east or west at a minimum height of 2m. Integral swift nest boxes to follow BS 42021:2022. Swallow nest cups should be sited high up, inside a building such as a garage or outbuilding, to ensure constant, easy access.

3.1.2 Habitat Enhancement

The site consists of urban land and a garden that will be developed. Therefore, no further habitat enhancements will be recommended within this GI statement.

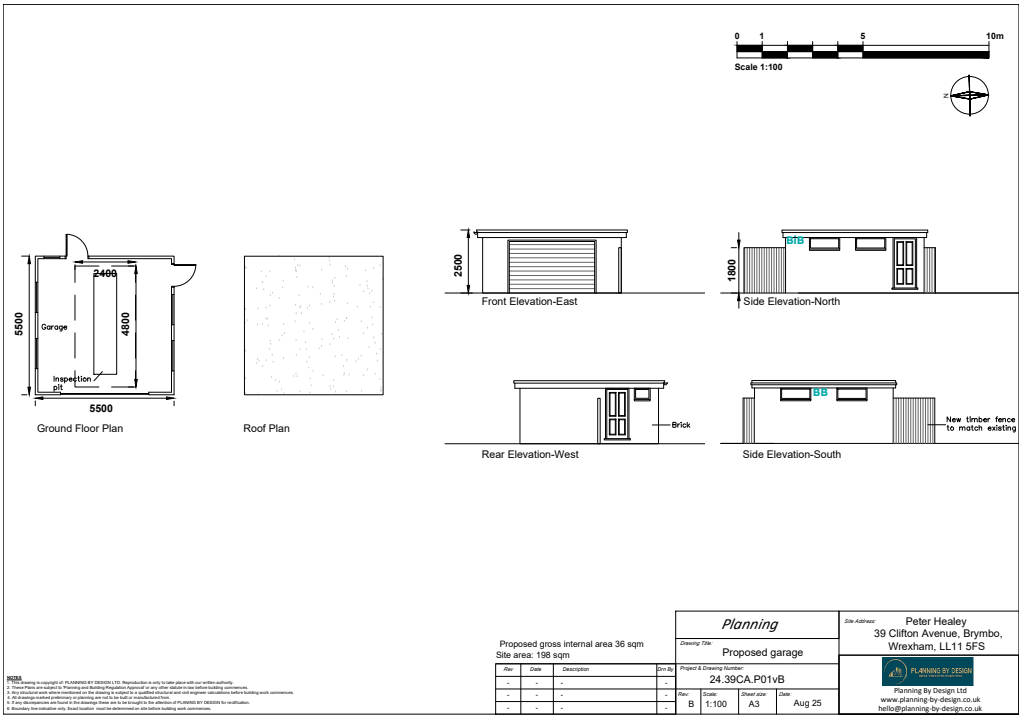
4 Conclusion

The proposed location of the garage and driveway is in an area of existing urban development. Therefore, the proposed development would not impact existing green infrastructure, biodiversity, ecosystem resilience, or protected species. The proposal has fully followed the step-wise approach prescribed in Chapter 6 of Planning Policy Wales, and the development would provide a net biodiversity benefit commensurate with the scale of the proposals.

Off-site ecological mitigation will not be required because there will be no impacts on protected species on the site.

5 Appendix

5.1 Site Map



Target Note Number	Description
Bat Box (BB)	Placed on the south-east to south-west aspects ideally, with linear features nearby, to allow bats undisrupted dispersal to local foraging habitat and in positions where the entrance is not artificially illuminated at night (enabled by the provision of the 'dark corridor'). Boxes will be positioned a minimum of 3m from the ground.
Bird Box (BiB)	Placed in secluded positions, ideally within dense cover and at a height of 2-4m metres from ground level. Ideally facing north to south-east to avoid strong sunlight and winds.

5.2 Site Photos

Photo 1 – Showing driveway and managed lawn to be developed		**Photo 2 –** Showing driveway and managed lawn to be developed	

5.3 Recommended Bat Boxes

Bat boxes should be provided to enhance the site's biodiversity and replace any lost roosts during construction.

- *Ecostyrocrete Crevice and Hollow Bat Boxes*. These should be installed where they are sheltered from the wind but unshaded for most of the day at a mix of heights from 3m-5m. Summer maternity roosts should be on a south-easterly to south-westerly aspect. There should be a clear flight line into the box, so ensure

nothing is impeding the entrance to the box. Different bat species prefer different boxes, so a mix would provide more chances for use. (https://www.greenwoodsecohabitats.co.uk/shop)

- *Schwegler or Vivara Pro Bat Boxes.* These should be installed as above. (https://www.nhbs.com/en/4/bat-boxes)
- *Bat Block.* These should be positioned within the wall during construction. Aim to position South or West facing for a summer maternity roost or north-facing for a winter hibernation roost.
- *Kent Bat Box.* Boxes are best fixed as high as possible in sheltered/shaded locations with a clear flight to the box entrance. Exposure to the sun for part of the day is acceptable. Several boxes may be placed together.
- *Soffit Bat Box.* Boxes are placed within the soffit, and access is created via a 20mm slot in the back of the soffit board against the external wall.
- *Pole Mounted Bat Box.* These are an ideal solution when no suitable building or tree is available to mount a bat box. It can come in one or two boxes and have a 4-, 5- or 6-metre metal pole. (https://www.nestbox.co.uk/products/pole-mounted-bat-box)

HALF AND HALF BAT BOX



£50

Individually Handmade - Specifications are in cm and approximate.
External: 44 high x 22 wide x 10 deep
Internal: Vertically, one half of the box is a Two Crevice design, the other half of the box has the Small Hollow design.
Weight approx. 8kg
For where the bat species is unknown or to be suitable for a wider range of species.

MEDIUM HOLLOW BAT BOX



£66

Individually Handmade - Specifications are in cm and approximate.
External: 44 high x 22 wide x 13 deep
Internal: 41 x 17 x 7.5
Weight approx. 9kg
Designed for larger groups of bats who prefer a wider cavity - described as **Hollow**, such as Brown Long Eared, Noctules, Myotis Sp.

TWO CREVICE BAT BOX



£53

Individually Handmade - Specifications are in cm and approximate.
External: 44 high x 22 wide x 10 deep
Internal: 41 x 17 x 1.8 crevices @ 2
Weight approx. 8kg
Designed for small groups of crevice dwelling bat species, such as Common and Soprano Pipistrelles.

https://www.greenwoodsecohabitats.co.uk/shop

5.4 Recommended Bird Boxes

The provision of bird boxes is a recommendation as they enhance biodiversity on the site and replace any lost nests during the construction phase. Ideally, these should be either swift boxes, house martin nests or sparrow terrace nest boxes due to the declining populations of these species, but other nest boxes can be used, as discussed below.

- *Schwegler and Manthorpe Swift bricks* (this would be the preferred option). These should be installed in sheltered locations (such as under the eaves of a suitable building), installed at a minimum height of 2m and orientated in a southerly/ westerly direction.

- *WoodStone Swift Nest Boxes* should be installed in sheltered locations (such as under the eaves of a suitable building), at a minimum height of 2m, and orientated southerly/ westerly.
- *Schwegler Single & Double House Martin Nests.* These should be installed in sheltered locations (such as under the eaves of a suitable building), installed at a minimum height of 2m and orientated in a southerly/ westerly direction (ensuring they have enough shade).
- *Schwegler 1SP Sparrow Terrace nest boxes.* These should be installed in a sheltered location upon a suitable building, at a height no less than 2m and orientated in a southerly or westerly direction.
- *Schwegler Woodcrete 1B nest boxes (for trees) and/ or Schwegler Bird House nest boxes (for buildings)* should be installed upon a suitably mature tree and/ or upon a suitable building at a height of no less than 2m and orientated in a southerly or westerly direction.
- *Wooden Barn Owl box.* These can be installed on trees or buildings more than 1km from motorways. They should be 3m above ground level with minimal obstructions leading to the opening. Trees should be mature with thick trunks and located within a hedgerow or woodland edge.
- *Little Owl box.* The Little Owl nestbox should be erected horizontally at least 3 metres (10 feet) above the ground on a wall top, beam or tree branch so that Little Owl owlets can walk in and out before fledging. Little Owls prefer nest boxes in open-sided or open-fronted buildings rather than enclosed places. A thin layer of untreated wood shavings or bark can be provided as a floor covering.



Apex Bird Box
£22.00 excl. VAT
£26.40 inc. VAT



Apex Robin Box
£22.00 excl. VAT
£26.40 inc. VAT



Eco House Martin Nest
£20.30 excl. VAT
£24.36 inc. VAT



Swift Nest Box
£36.60 excl. VAT
£43.92 inc. VAT



Sparrow Terrace Nest Box
£40.00 excl. VAT
£48.00 inc. VAT

https://www.nestbox.co.uk/collections/bird-boxes

5.5 Other Biodiversity Enhancements

- *Hedgehog Highways*. Minimum 150mm x 150mm gaps to be left in fencing/ boundaries between adjoining plots where suitable habitat exists or is created. (https://www.hedgehoghighway.co.uk/shop/)
- *Insect boxes/Bee Banks/Bee Bricks*. Good for a wide range of invertebrates. Can be prefabricated/off-the-shelf units or constructed using available materials. Bee banks can be constructed from a layer of turf, soils and sands to create low mounds / vertical faces with a sunny aspect—ideally 1 per property. (https://www.birdfood.co.uk/wildlife/bees-insects)

- *Habitat Pile*. Create a log pile by loosely arranging together old branches or pieces of log, leaving the bark on and using a variety of species if possible. Place the pile in a shady place, such as under a tree, at the foot of a hedge, at the back of the border or behind the shed.



Hedgehog Highway – 2 Pack



National Trust Bee & Insect Tower

(1)

£49.99

ADD TO BASKET