

Ecological Impact Assessment

**The Lodge House,
Woodchester Park**

November 2023

Ecology | Green Space | Community | GIS
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Report Produced for



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SUMMARY

Purpose of the Report	<p>This Report has been produced by Ethos Environmental Planning on behalf of [REDACTED]. It provides an assessment of the likely ecological effects associated with the proposed development at the site.</p>
Description of the scheme	<p>The development proposals for the site are for the demolition and rebuild of part of the existing structure and for a new coach house.</p>
Methodology	<p>A structures inspection and site survey was undertaken in November 2023.</p>
Baseline Ecological Conditions	<ul style="list-style-type: none"> • The site is adjacent to Woodchester Woods which is a SSSI and ancient woodland of national importance for nature conservation. • The main house on site has an historic bat roost in the loft void and has external features suitable for crevice dwelling bats, and assessed as having high potential for bats. • The front extension of the house has negligible potential for bats. • The garage outbuilding has negligible potential for bats.
Mitigation and Enhancements	<ul style="list-style-type: none"> • Pre works check of a potential roost features on the main house in close proximity to the proposed extension will be undertaken by a licensed ecologist. • A CEMP will be prepared to ensure there are no impacts on Woodchester Woods. • Internal automatic blinds will be provided within the windows on the rear elevation of the proposed coach house. • Two bird and two bat boxes will be provided on the eastern elevation of the coach house.
Conclusion	<ul style="list-style-type: none"> • Assuming the implementation of effective mitigation measures, as set out in this report, no significant adverse ecological effects are predicted. • The proposed development is therefore in accordance with relevant national and local planning policies in relation to nature conservation and relevant wildlife legislation.

1 INTRODUCTION

- 1.1 This Ecological Impact Assessment (EclA) report has been prepared by Ethos Environmental Planning (Ethos) on behalf of [REDACTED]. The EclA was written by [REDACTED] BSc (Hons), MA, Managing Director at Ethos. The details and experience of the authors and field survey team are provided in Section 3.7.
- 1.2 The EclA relates to a proposed development at The Lodge, Woodchester Park, GL10 3TR (Central Grid Reference SO797015), hereafter referred to as 'the site' and shown in Figure 1.



Figure 1 Site location

- 1.3 The proposals for the site are for the redevelopment of the existing structure; with part demolition and retention of sections to be incorporated into the design of the residential property.
- 1.4 The aims of this EclA report are to:
- provide an assessment of the likely effects of the proposed development on ecological features on site;
 - identify the measures required to mitigate impacts on site biodiversity;
 - identify opportunities to deliver ecological enhancements for biodiversity as part of the development proposals;

to enable the Local Planning Authority to assess whether the proposals comply with relevant planning policy or legislation.

- 1.5 This report has been produced following the approach set out in CIEEM's 'Guidelines for Ecological Report Writing' (CIEEM, 2017).

2 POLICY AND LEGISLATION

2.1 National Policy

2.1.1 National Policy in relation to biodiversity in Wales is set out in Section 6.4 Biodiversity and Ecological Networks in Planning Policy Wales Edition 11 (February 2021). The policy is focused around the requirement for development plan strategies, policies and development proposals to consider the need to:

support the conservation of biodiversity, in particular the conservation of wildlife and habitats;

ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;

ensure statutorily and non-statutorily designated sites are properly protected and managed;

safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and

secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

2.2 Local Policy

2.2.1 Relevant policies taken from the Stroud District Local Plan (2015) are given below:

Policy ES6 Providing for Biodiversity and Geodiversity

New Development and the Natural Environment

All new development will be required to conserve and enhance the natural environment, including all sites of biodiversity or geodiversity value (whether or not they have statutory protection) and all legally protected or priority habitats and species. The Council will support development that enhances existing sites and features of nature conservation value (including wildlife corridors and geological exposures) that contribute to the priorities established through the Local Nature Partnership. Consideration of the ecological networks in the District that may be affected by development should take account of the Gloucestershire Nature Map, river systems and any locally agreed Nature Improvement Areas, which represent priority places for the conservation and enhancement of the natural environment. In this respect, all developments should also enable and not reduce species' ability to move through the environment in response to predicted climate change, and to prevent isolation of significant populations of species. The District will have a number of undesignated sites, which may nevertheless have rare species or valuable habitats. Where a site is indicated to have such an interest, the applicant should observe the precautionary principle and the Council will seek to ensure that the intrinsic value of

the site for biodiversity and any community interest is enhanced or, at least, maintained. Where an impact cannot be avoided or mitigated (including post-development management and monitoring), compensatory measures will be sought. The Council Our environment and surroundings Stroud District Local Plan may, in exceptional circumstances, allow for biodiversity offsets, to prevent loss of biodiversity at the District level.

Protected Species

- 2.2.2 Development proposals that would adversely affect European Protected Species (EPS) or Nationally Protected Species will not be supported, unless appropriate safeguarding measures can be provided (which may include brownfield or previously developed land (PDL) that can support priority habitats and/or be of value to protected species).

The wider valuable natural environment includes not only these protected species and sites, but also local sites such as Key Wildlife Sites, Regionally Important Geological Sites and other features of nature conservation value, including:

- 1) priority species and habitats of conservation concern (those listed on the English List – section 41 of the Natural Environment and Rural Communities Act)
- 2) areas of habitat with restoration potential (particularly those identified on the Gloucestershire Nature Map or identified through other landscape scale projects and within any ‘Nature Improvement Area’ recognised by the Local Nature Partnership) and features that provide an ecological function for wildlife (such as foraging, resting and breeding places) – particularly wildlife corridors of all scales, which provide ecological connectivity, allowing species to move through the landscape, and which support ecosystem functions. This includes functions that are defined by Regulation 39 of The Conservation of Habitats and Species Regulations 2010 (as amended), also known as the “Habitat Regulations”.

2.3 Relevant Legislation

- 2.3.1 The following pieces of legislation have been considered within this assessment with an explanation of their relevance provided.

Legislation	Relevance
The Habitats Directive (together with the Birds Directive) forms the cornerstone of Europe's nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. All in all, the Directive protects over 1,000 animals and plant species and over 200 "habitat types" (e.g. special types of forests, meadows, wetlands, etc.), which are of European importance. The Habitats Directive and parts of the Birds Directive are transposed into legislation by The Conservation of Species and Habitat Regulations 2017 (as amended).	Presence of roosting bats

Legislation	Relevance
<p>Wildlife and Countryside Act 1981 (as amended, including by the Countryside and Rights of Way Act 2000), which provides legislative protection for certain species. The Act also prohibits the spread of invasive plant species, as well as providing the mechanism for the designation and protection of Sites of Special Scientific Interest;</p>	<p>Presence of roosting bats</p>
<p>The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty). This duty applies to public authorities in the exercise of their functions in relation to Wales and will help maximise contributions to achieving the well-being goals. The Nature Recovery Action Plan supports this legislative requirement to reverse the decline in biodiversity, address the underlying causes of biodiversity loss by putting nature at the heart of decision-making and increasing the resilience of ecosystems by taking specific action focused around the objectives for habitats and species.</p>	<p>Enhancements for biodiversity</p>

3 METHODOLOGY

3.1 Scope of Assessment

3.1.1 This assessment has been undertaken following the approach set out in the ‘Guidelines for Ecological Impact Assessment in the UK and Ireland’ (CIEEM, 2018). The assessment has considered ‘Important Ecological Features’ that are present within the ‘Zone of Influence’ of the project. Important Ecological Features for this project comprise¹:

Designated nature conservation sites;

Habitats and Species of Principal Importance for the Conservation of Biodiversity in England;

Legally protected species; and

Red Listed or rare species (based on Red Data Book lists, Birds of Conservation Concern and species considered to be nationally rare / scarce).

3.1.2 The Zone of Influence (Zoi) is the area over which the project could have an influence on ecological features. The Zoi is likely to vary for different features. However, in general terms the Zoi for this development proposal is considered to comprise the land within the red line boundary as well as immediate adjacent habitat features. It also includes designated nature conservation sites in the surrounding area.

3.1.3 The overall assessment has been informed by guidelines provided in CIEEM (2017) Guidelines for Ecological Report Writing.

3.2 Background Data Search

3.2.1 A background data search was requested from Gloucestershire Centre for Environmental Records (GCER) covering bats within 1km of the site.

3.3 Bat Survey

3.3.1 The methodology for the bat survey has been informed by the Bat Conservation Trust Bat Surveys Good Practice Guidelines 2023. The habitats on site were assessed for their suitability for foraging, commuting and roosting bats. A preliminary roost inspection was undertaken of all buildings to be impacted by the proposals.

Habitats assessment

3.3.2 The habitats on site were assessed for their suitability to support foraging and commuting bats. This assessment was also contextualised through examination of suitable habitat and ecological features in the wider landscape and possible wildlife corridors across the proposed site following natural linear features such as hedgerows.

¹ Box 14 in CIEEM’s ECiA Guidelines (2018)

Preliminary roost inspection

- 3.3.3 Physical external and internal inspection of the buildings were undertaken on 3rd May 2023 by the surveyor using the equipment described below to assist the inspection. A CLU-10 (1 million candlepower) searchlight fitted with a red filter was used to search dark areas for signs of bats. Pentax 0.5m Papilio (8.5x21) close focusing binoculars were used to view areas inaccessible on foot. Approximately three hours of search effort were expended.
- 3.3.4 The physical search includes a search for live animals and a search for other signs that give an indication of past or present occupancy as outlined below. In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated or at least be indicative of species type), signs of staining, urine splashing, characteristic odours, and accumulations of discarded prey remains.
- 3.3.5 The search also included an endoscope search of features highlighted within the previous report. Equipment included a Rigid micro CA-350 Inspection Camera with micro 6mm extension, camera, laser measure, and binoculars.

3.4 Bird Survey

- 3.4.1 The bird survey included an assessment of the structures on site for their potential to support protected and notable species of bird as well as their potential to support breeding birds.

3.5 Limitations

- 3.5.1 The main house on site (which will only be partially impacted by the proposals), has been subject to re-roofing works completed by the previous and current owners of the property. There was historic evidence of bats roosting in the loft of this structure, however, the re-roofing works have resulted in all potential access points to the loft being removed, therefore an assessment for void dwelling bats cannot be undertaken. As the loft or roof of the main house will not be impacted by the proposals, this is not considered a significant limitation.

3.6 Evaluation of Ecological Features

- 3.6.1 In line with CIEEMs guidelines on EclA, this assessment has focused on relevant Important Ecological Features. The scale of importance of these features has been determined based on available contextual information, which for this project are considered to include:

International – of internationally and protected through international legislation;
National – of importance in England and protected through national legislation;
County – of importance to the District (Stroud) but not sufficiently important to warrant ‘National’ scale of importance; and


- **Local** – of importance to the local area (Nympsfield), but not sufficiently important to warrant District scale of importance.

3.6.2 Potential impacts on Important Ecological Features are identified and assessed; likely significant effects are those likely to result in a change to the conservation status of a habitat or species population or undermine/support nature conservation policy. Mitigation measures have been devised following the mitigation hierarchy; appropriate mechanisms for securing mitigation measures have been identified.

3.7 Personnel

3.7.1 The qualifications and experience of the surveyors for the project are provided at table 1.

Table 1 Site surveyors

Ecologist	Position	Qualifications/ Licences	Experience
	Managing Director	MSc BSc (Hons), MA, MCIEEM NE: Class 2 Bat Licence Registered on BLICL and level 2 Earned Recognition NRW bat license Class 1 GCN Licence	Jim's experience in ecology covers a wide range of projects and clients and his focus is on interpreting relevant policy and legislation to ensure projects are delivered efficiently and meet the needs of the client. He holds survey licenses for bats and great crested newts in England and Wales and is a registered consultant on Natural England's Bat Low Impact Class License (BLICL) and holds a level 2 (AL2) accreditation for Bat Earned Recognition.

4 BASELINE ECOLOGICAL CONDITIONS

4.1 Designated Sites

4.1.1 The site is immediately adjacent to Woodchester Park Woods which is a SSSI and Ancient Woodland. The site supports a diverse fauna and flora associated with the grassland, woodland and wetland habitats that lie within the valley. The seclusion, shelter and range of habitats provide an unrivalled environment which is exploited by a nationally important breeding colony of greater horseshoe bats *Rhinolophus ferrumequinum* centred on the Mansion near the western end of the site. The valley is also of outstanding invertebrate interest. Woodchester Park is of 'National' importance for nature conservation.

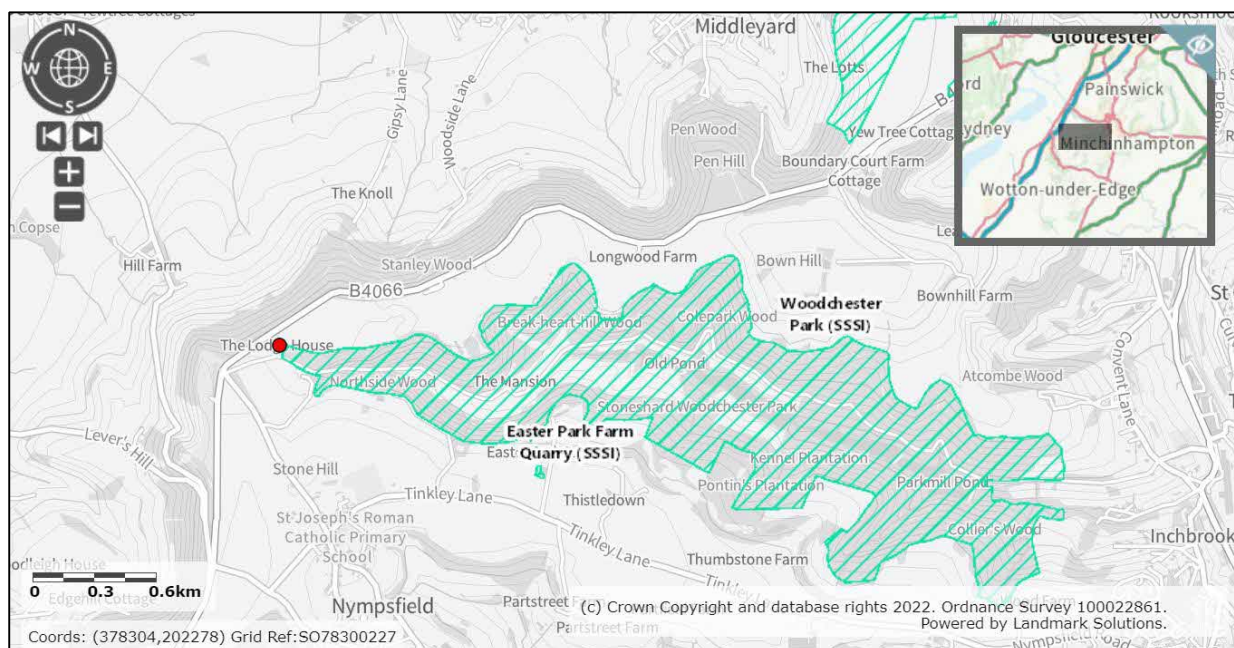


Figure 2 Statutory sites

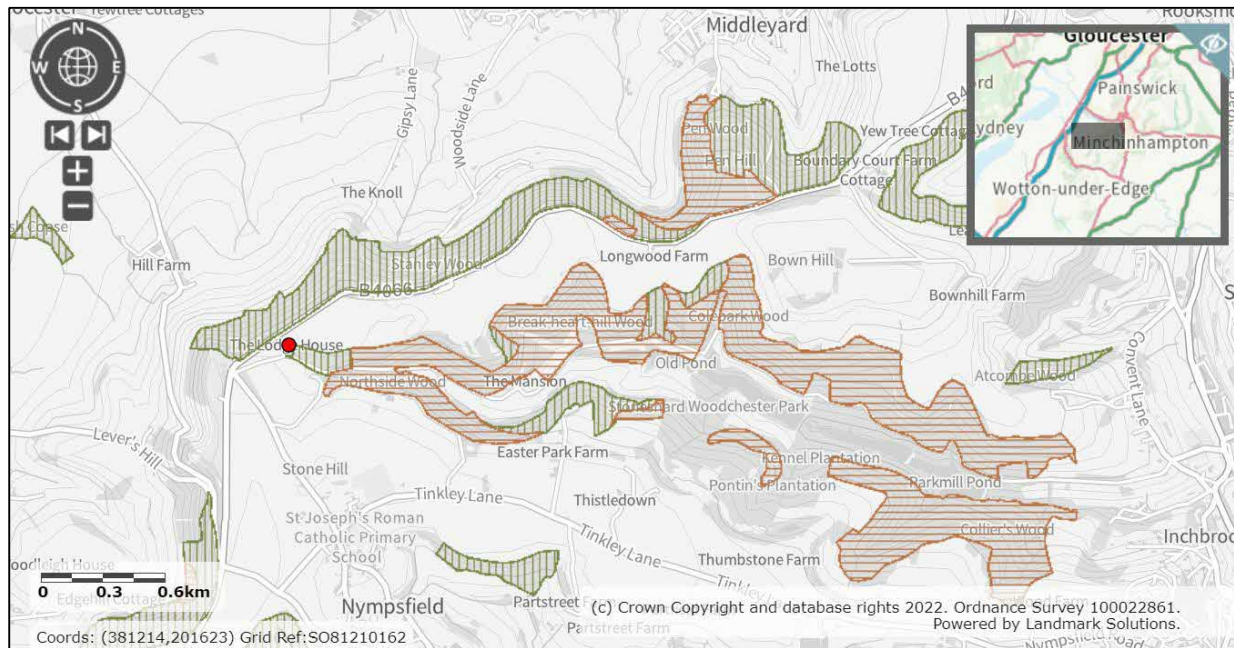
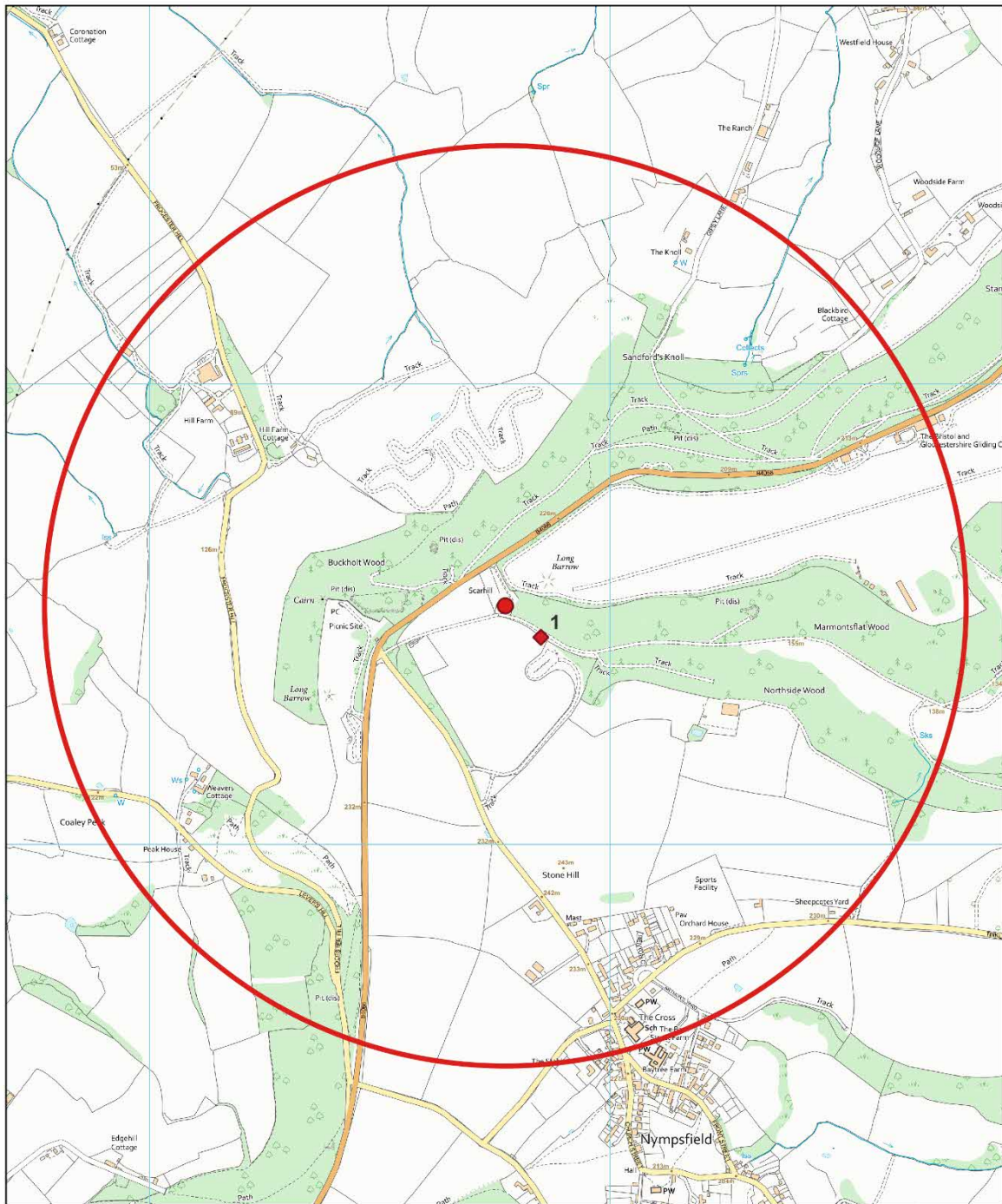


Figure 3 Ancient Woodland

4.2 Protected Species

- 4.2.1 There are several records of bats from immediately adjacent to the site at Woodchester Park, these include Greater Horseshoe Bat, Lesser Horseshoe Bat, Daubenton's Bat, Serotine and Pipistrelle spp. The location of records is shown at figure 4.

Map code for bat species mapped within 1km



Zoom in for detail

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Figure 4 Records of bats

4.3 Habitats

General site description

- 4.3.1 The site comprise a residential property, garden and paddock. The area of impact is focused on the existing structures on site comprising the main house and a large garage/outbuilding surrounded by hard standing and amenity lawn. Immediately adjacent to the site is Woodchester Park which is a SSSI and ancient woodland.

4.4 Bats

Habitats

- 4.4.1 The site is immediately adjacent to Woodchester Park woods which is of national importance for nature conservation including a nationally important roost of greater horseshoe bats. Other habitats within close proximity of the site are also of high value for bats.

Structures inspection

- 4.4.2 There were two structures on site, both of which will be impacted by the proposals (see section 5). B1 was the main house and B2 was a garage/outbuilding, as shown at figure 5.



Figure 5 Structures on site

Main House (B1)

- 4.4.3 The main house is a grade II listed residential dwelling constructed with traditional Cotswold stone, with a Cotswold stone pitched roof. The walls are in good condition with no gaps suitable for bats. The main roof has multiple gaps created by the natural

stone and is highly suitable for crevice dwelling bats. Windows are traditional wooden in good condition. Drain pipes are cast iron in good condition. There are stone gutters around the property which have gaps between the wall and gutter (photos 4 – 6).

- 4.4.4 On the northern (front) elevation is a single storey 'modern' extension constructed with reformed blocks, and a sloped cement tile roof (this is proposed for demolition). The roof was in poor condition with crumbling cement (see photo 8), but it was tight fitting and provided no suitable gaps for crevice dwelling bats beneath tiles or at the roof edge (photo 7). Above this structure are the stone gutters on the main house, where there are gap between the gutters and the wall.
- 4.4.5 Inside the main house was a large loft void which was untrussed, there was bituminous felt on one half of the pitch of the roof and breathable membrane on the other (photo 10). Due to the re-roofing works there were now apparent gaps into the loft void. At the eastern end of the loft was an accumulation of approximately 30 old bat droppings.
- 4.4.6 There was also a small loft void above the front single storey extension (photo 11), this has breathable felt, no access points for bats and no evidence of bats was found.
- 4.4.7 Based on the preliminary roost assessment, the main house is assessed to be an historic roost for void dwelling bats. It is assessed as having high potential for crevice dwellings bats within the rood tiles and the stone gutters.
- 4.4.8 The front single storey extension is assessed as having negligible potential for bats.



Photo 1 North elevation



Photo 2 South east elevation



Photo 3 South west elevation



Photo 4 Stone gutters



Photo 5 Gaps beneath gutters



Photo 6 Gutter

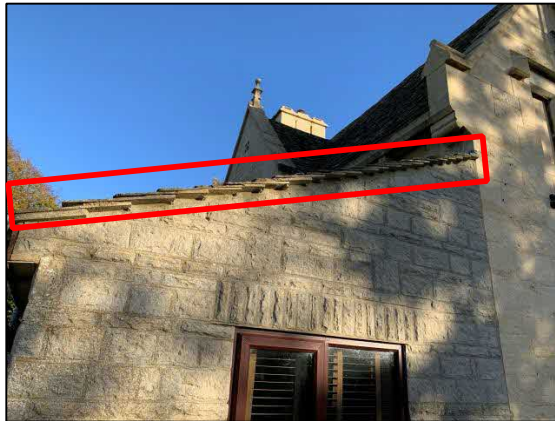


Photo 7 Roof edge of extension



Photo 8 Tiles on extension



Photo 9 Location of bat droppings



Photo 10 Internal loft main house



Photo 11 Loft void above extension

Garage/Outbuilding (B2)

- 4.4.9 The detached garage is constructed with corrugated metal sheets, with internal metal beams and supports. There were triple garage doors along the front elevation. The roof included several natural roof windows which enabled high levels of natural light spill into the structure. The external metal sheeting provide no suitable gaps for crevice dwelling bats, similarly internally there were no suitable features. There were multiple gaps into the structure, however the natural light and matla materials provided unfavourable conditions for void dwelling bats. No evidence od bats was found. It was assessed the structure has 'negligible' potential for bats.



Photo 12 South east elevation of garage



Photo 13 Rear north elevation of garage



Photo 14 Internal garage



Photo 14 Internal garage



Photo 15 Internal garage



Photo 16 Internal garage

4.5 Birds

4.5.1 No evidence of nesting birds were observed within either of the structures surveyed.

5 DESCRIPTION OF THE PROPOSED DEVELOPMENT

5.1 The following is proposed:

- a. Demolish existing 1980's stone clad/UPVC lean to and replace with a slightly larger (single story) glass/aluminium framed kitchen, breakfast, and utility room.
- b. Demolish existing large steel frame/metal sheet clad triple garage, workshop, storeroom, and coal store and replace with a smaller stone build coach house with double garage area and adjoining garden store with a dormer office/annex for home working/visitors. This also supports the return to a fourth bedroom following point c. below.
- c. Minor/removable alterations to the first floor to accommodate washroom facilities to each bedroom due to their only being one existing en-suite in bedroom 1 and no family bathroom. In removing said en-suite, making the necessary repair/restoration works to the south/public facing elevation to include removal of the existing grey soil pipe/waste pipework and Velux window so returning the elevation to its original specification.
- d. Replace dilapidated wooden gate posts/gate at the main B4066 entrance with stone pillars and wrought iron gate and make repairs to dilapidated dry stone wall. Please note this has already been completed as we did not realise the land was included in the grade 2 listing.
- e. General restoration works to include refurbishment of all dilapidated stonework and window frames/casements, replacing the previously installed double glazing in said casements with single glazing.

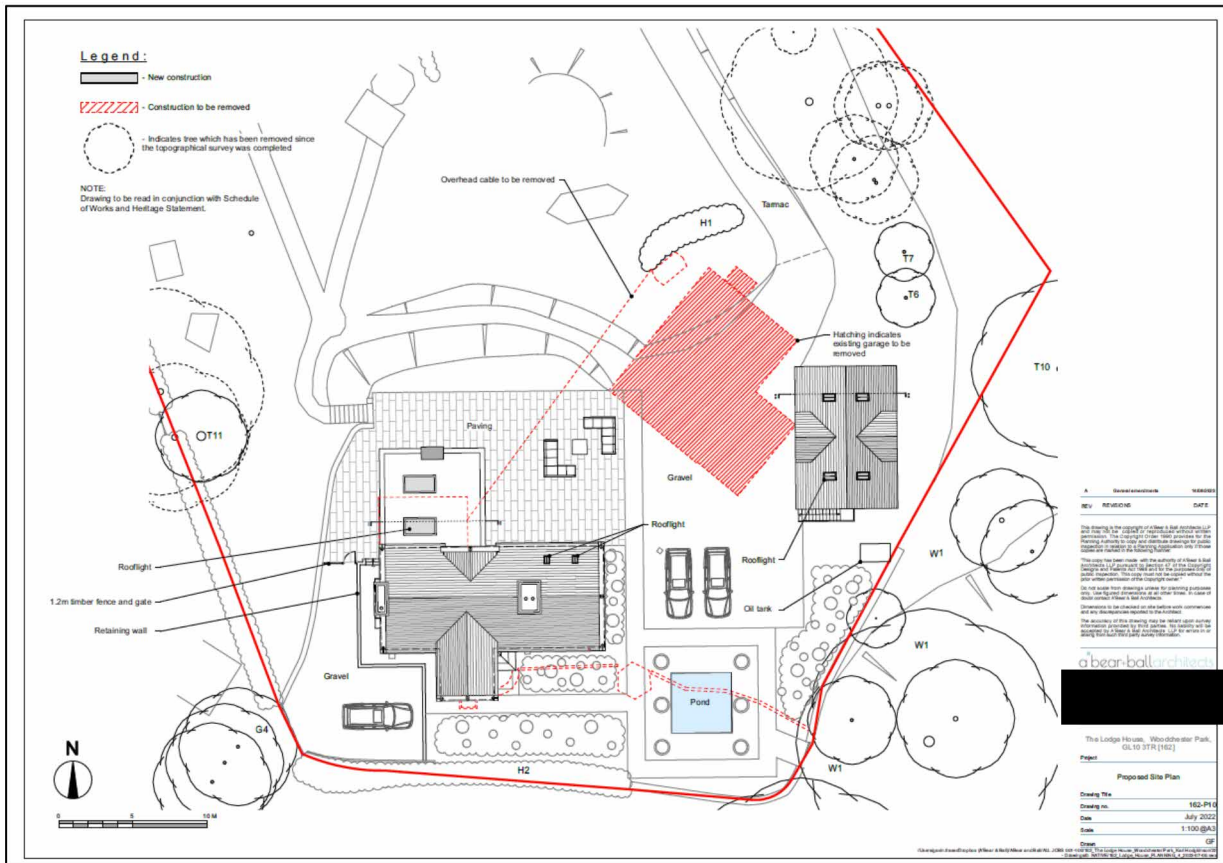


Figure 6 Proposed site plan

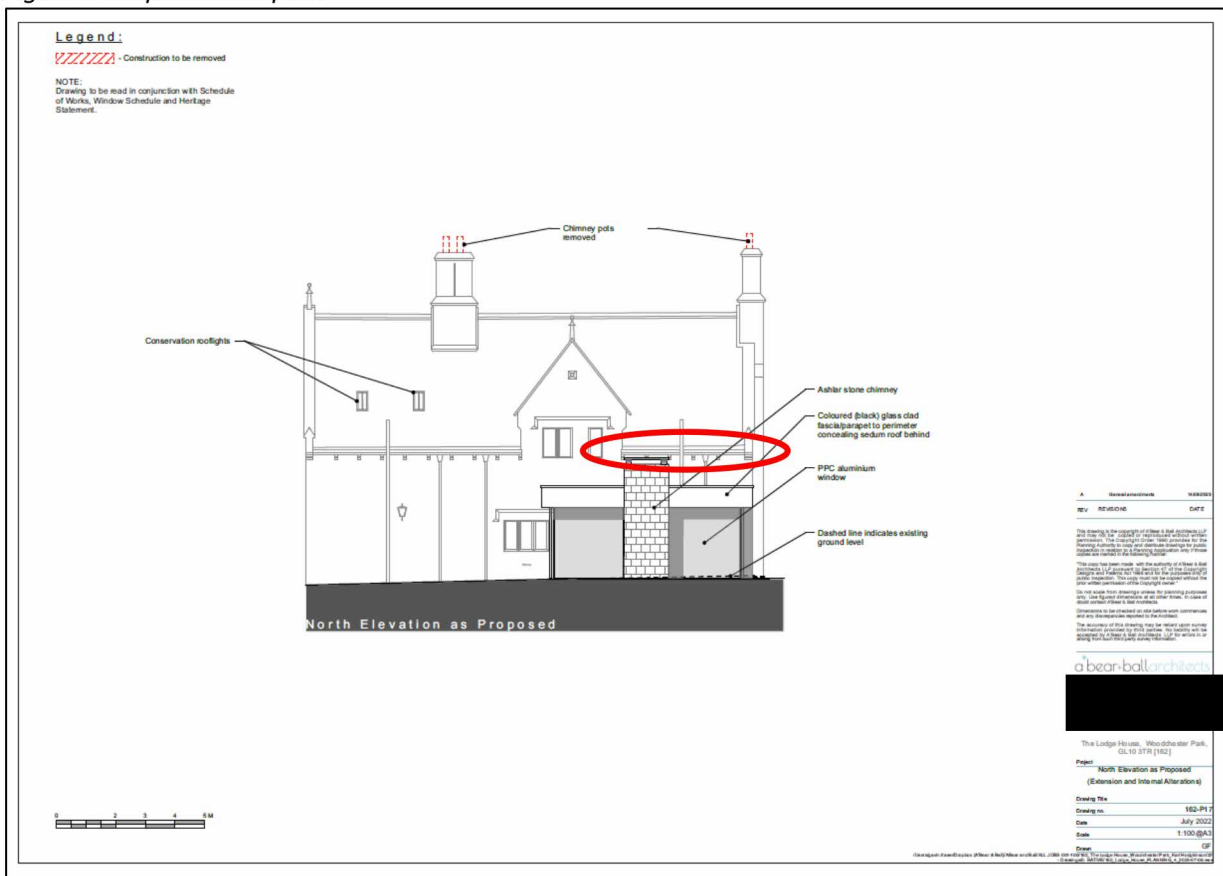


Figure 7 Proposed extension on northern elevation

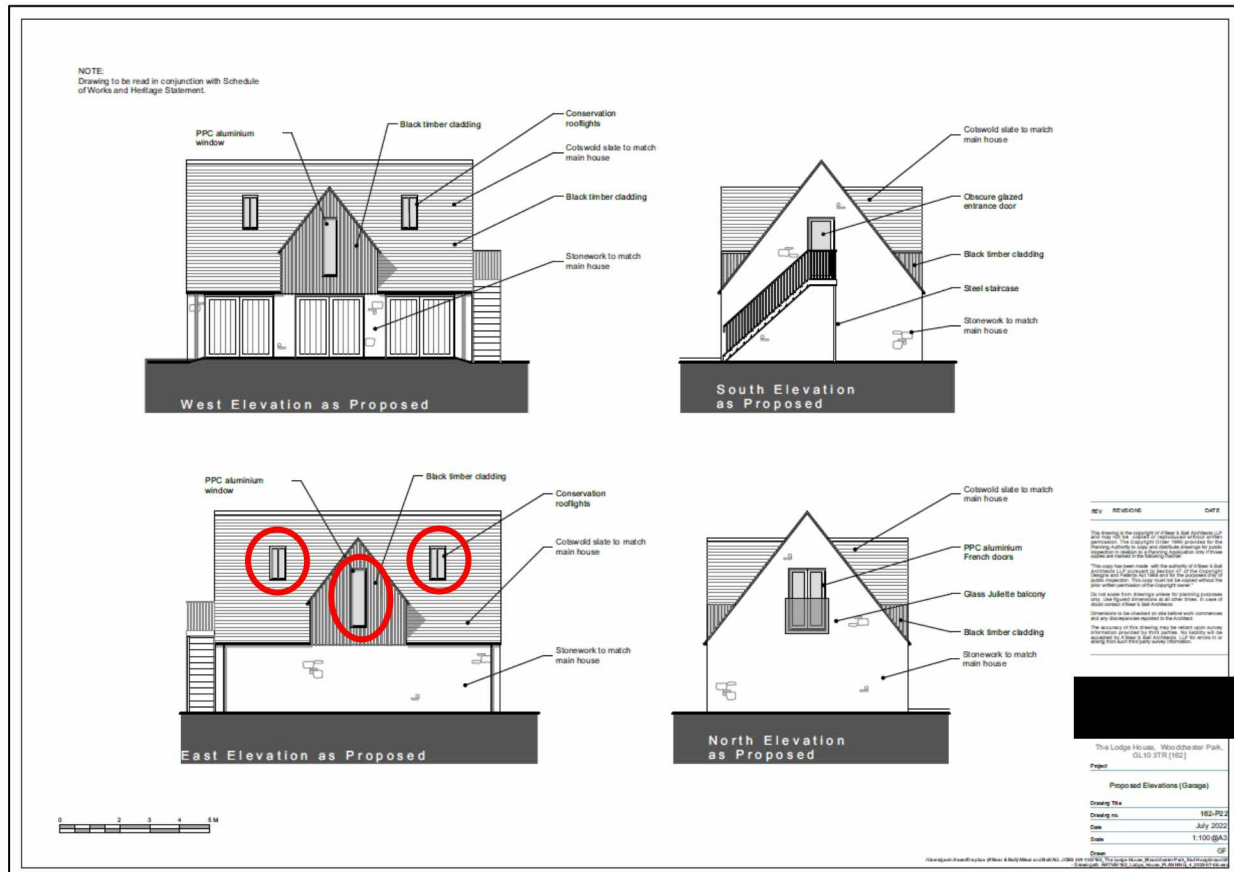


Figure 8 Proposed coach house

6 ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

6.1 Roosting bats

- 6.1.1 The front single storey extension has negligible potential for bats, so there will be no impacts on roosting bats from the demolition of this structure. However, above the proposed new extension building (figure 7) is a section of stone gutter, beneath which there are suitable gaps for crevice dwelling bats. The proposed extension will directly impact this feature, and will retain any flight lines to and from the potential roost features. However, there could be potential low level disturbance of bats roosting in this features during demolition.
- 6.1.2 It is not considered that the potential level of disturbance would warrant the requirement for an EPS bat license, however, a precautionary approach must be followed to ensure this. This will comprise a pre-works inspection of the feature by a licensed bat ecologist, a toolbox talk to contractors and ensuring that scaffold does not block entrance to the feature. The requirement for this ca be secured by planning condition with a compliance check report to be provided by the ecologist.
- 6.1.3 There are assessed to be no impacts or need for mitigation in relation to the potential roost features beneath the tiles on the main roof of the house.

6.2 Commuting bats

- 6.2.1 The proposed coach house is located immediately adjacent to Woodchester Woods and tis area is highly likely to be used by commuting bats, including light sensitive species such as lesser and greater horseshoe bats. There are potential impacts on the woodland during both the construction and operational phases.

Construction

- 6.2.2 Potential impacts from construction lighting and pollution/physical damage to the woodland could arise during the construction of the coach house. This can be avoided through the provision of protective screen fencing located between the construction area and the woodland edge. It will also be a requirement to have no construction lighting within this location. These measures can be included in a construction environmental management plan (CEMP) which can be secured by condition.

Operational

- 6.2.3 There are potential impacts on the woodland during the operational phase from lighting from windows from the coach house. This is limited to the roof windows on the east elevation which will face onto the woodland (figure 8). Whilst these are relatively small windows, there remains the potential for increased lux spill, albeit relatively minor. Considering importance of the woodland, it will be necessary to

reduce this impact by providing electronic blinds on the rear three windows. These blinds which are available as standard can be linked to the light switch in the relevant room so when the light is switched on the blinds come down. The requirement for this can be secured by a planning condition.

- 6.2.4 On this basis, it is concluded that there will be no impacts on commuting bats as a result of the proposals.

7 ENHANCEMENTS

7.1 A number of features for bats and birds will be provided as part of the proposals:

Two bat boxes to be installed on the eastern elevation of the proposed coach house.

Two sparrow terraces to be installed on the eastern elevation of the proposed coach house.

8 MONITORING

8.1 The mitigation measures set out in Section 6 which will be supervised by the SQE and licensed ecologist will be recorded as a 'site note' and if required, made available to the LPA.

8.2 The provision of the ecological enhancements as set out in Section 7 will be subject to an ecological compliance report undertaken by the SQE.

REFERENCES

CIEEM (2017^a) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good practice Guidelines (4th edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

Mitchell-Jones, A. J. (ed.) (2004) Bat Mitigation Guidelines. English Nature, Peterborough. ISBN-1 85716-781-3.

Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004) 3rd Edition Bat Workers' Manual, 178 pages b/w photos, softback, ISBN-1 86107 558 8.

Stroud District Council (2015) Your District Your Future – Stroud District Local Plan. [Online] Available from: https://www.stroud.gov.uk/media/1455/stroud-district-local-plan_november-2015_low-res_for-web.pdf. Development Services Stroud District Council

Stroud District Council (2020) Stroud District Local Plan review 2019. [Online] Available from: <https://www.stroud.gov.uk/council-and-democracy/about-the-council/have-your-say/consultations/stroud-district-local-plan-review-2019>

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573/contents>

Wildlife and Countryside Act 1981. Available at: <http://www.legislation.gov.uk/ukpga/1981/69>