



Preliminary Roost Assessment

Woodhey, Woodhey Road, Ramsbottom, Bury, BL0 9RD

Chris Rowley

Status	Issue	Name	Date
Draft	1	Elen Griffin BSc (Hons), MRSB Consultant Ecologist	14/02/2023
Reviewed	1.1	Katy Perry BSc (Hons) MCIEEM, Senior Consultant	16/02/2023
Final	2	Elen Griffin BSc (Hons), MRSB Consultant Ecologist	17/02/2023

Arbtech Consultant's Contact Details:

Elen Griffin BSc (Hons), MRSB
Consultant Ecologist
Tel: 07842311114 Email: elengriffin@arbtech.co.uk
<https://arbtech.co.uk>

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Chris Rowley to undertake a Preliminary Roost Assessment (PRA) at Woodhey, Woodhey Road, Ramsbottom, Bury, BL0 9RD (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of the existing building (B1) and erection of a replacement dwelling (hereafter referred to as “the proposed development”).

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 4 of this report.

Feature	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>
Roosting bats (B1)	The proposed development will result in the demolition to this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Bats are considered unlikely to be present in B1 but, as stipulated in professional survey guidance, low value buildings typically require one bat emergence or re-entry survey to be completed during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost. An alternative approach to a single bat emergence or re-entry survey, which has a low detection rate for bat roosts and is often an unreliable way of identifying the presence of bat roosts, would be to produce a Bat Mitigation Plan. This should include measures to be implemented during demolition and what to do if a bat is found during works. Demolition works would need to be supervised by a licensed bat consultant. Acceptance of a Bat Mitigation Plan would be at the discretion of the Local Planning Authority, given that this would be a deviation from standard survey guidance.
Foraging and commuting bats	It is to the consultants understanding that the proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. The proposed development may include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development.
Nesting birds (B1)	None.	None.
Other ecological constraints	N/A	N/A

Contents

1.0 Introduction and Context.....	6
1.1 Background	6
1.2 Site Context	6
1.3 Scope of the Report	6
2.0 Methodology.....	7
2.1 Desk Study	7
2.2 Field Survey	7
2.3 Breeding Birds and Other Incidental Observations	7
2.4 Suitability Assessment	7
2.5 Limitations	8
3.0 Results and Evaluation	9
3.1 Desk Study Results.....	9
3.2 Designated Sites	9
3.3 Historical Records	9
3.4 Field Survey Results	9
4.0 Conclusions, Impacts and Recommendations	15
4.1 Informative Guidelines	15
4.2 Evaluation	15
5.0 Bibliography	19
Appendix 1: Proposed Development Plan.....	20
Appendix 2: Site Location Plan	22
Appendix 3: Bat Survey Plan	23
Appendix 4: Legislation and Planning Policy Related to Bats.....	24

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Chris Rowley to undertake a Preliminary Roost Assessment (PRA) at Woodhey, Woodhey Road, Ramsbottom, Bury, BL0 9RD (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of the existing building (B1) and erection of a replacement dwelling (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists —Good Practice Guidelines” publication (Collins, 2016). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy

1.2 Site Context

The site is located at National Grid Reference SD 78608 15373 and has an area of approximately 0.1ha comprising of the existing disused dwelling, B1, with associated garden. It is surrounded by residential dwellings and woodland coppices with areas of agricultural land present within the wider environment. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection of built structures where possible, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Elen Griffin BSc (Hons), MRSB, Ecological Consultant (Accredited Agent on Natural England Level 2 Bat Licence Number: 2016-22843-CLS-CLS) on 8th February 2023.

The PRA focussed on one built structure which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).

	Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

Specific limitations to the survey were a lack of full access to the loft space of B1 due to health and safety reasons. The loft space was not boarded and a safe route for a full inspection could not be determined.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

3.2 Designated Sites

No statutory designated sites with bat qualifying interests were identified within 2km of the site.

3.3 Historical Records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 2.

Table 2: Granted EPSLs for bats within 2km of the site

<i>EPSL reference</i>	<i>Bat species affected</i>	<i>Impacts allowed by licence</i>
2014-5187-EPS-MIT	Common pipistrelle and soprano pipistrelle	Destruction of a resting place
2014-3807-EPS-MIT	Common pipistrelle	Destruction of a resting place
2020-45495-EPS-MIT-2	Common pipistrelle	Destruction of a resting place

3.4 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 3.

Table 3: Weather conditions during the survey

Date: 08/02/2023	
Temperature	3°C
Humidity	77%
Cloud Cover	50%
Wind	5mph
Rain	None

B1 – exterior

B1 is a detached single storey brick-built building with a hipped and pitched roof clad in slate roof tiles. The roof tiles, for the most part, look to be in good condition. However, a low number of slightly lifted roof tiles were noted along the western elevation. Such tiles could provide roosting sites for crevice dwelling species such as pipistrelle bats. Some missing and replaced

roof tiles were identified along the northern elevation of the roof with the use of a drone. The gaps look to have been filled with plastic sheeting or similar. A small gap was also noted below the roof tiles of the pitched section present along the north-eastern elevation.

The ridge tiles look to be mostly well fitted, however, some missing mortar was noted from below the ridge tiles along the eastern and western elevation.

Two flat roof sections are present, one along the southern elevation and one along the northern elevation. Both sections have been clad with bitumen felt and for the most part look to be in good condition with no lifts, tears or areas suitable for roosting bats.

The doors and windows are UPVC framed and appear in excellent condition with no suitable bat roosting sites.

The brickwork around the building is rendered and appears in good condition with no gaps or cracks in which crevice-dwelling bats could roost.

There are timber soffits and bargeboards around the building which are generally in good condition.

There are two chimneys located on the roof of the building. The brickwork on the chimneys is rendered and look to be in good condition. There is lead flashing around the bases of the chimney which is flat and without gaps.



B1 – western elevation



B1 – western elevation roof with highlighted lifted tiles and gaps



B1 – southern elevation of garage/outbuilding



B1 – eastern elevation



B1 – area of missing mortar under eastern ridge tile



B1 – well sealed soffits



B1 – central roof structure



B1 – eastern roof structure



B1 – roof of garage/outbuilding section

B1 – interior

There is one loft space within the main roof void of B1. The roof structure is built from timber beams including the ridge beam. The roof is unlined with some areas of mortar still present on the underside of the roof tiles.

The floor of the loft space is lined with mineral wool insulation, no timber boards are in place as such the loft space was inspected from the loft hatch.

There are dense cobwebs around the ridge beam and roof to floor cobwebs which could indicate a lack of internal flying activity from void dwelling bats, such as brown long-eared bats.

Small beams of light enter the loft space from around the roof tiles where the underside mortar has fallen away.

Internal conditions of the loft;

Temp; 2.4

Humidity; 65.9%

Wind; 0mph



B1 - loft interior looking east



B1 - interior looking north



B1 - example of underside of the roof tiles



B1 - example of underside of the roof tiles

B1 – evidence of bats

No evidence of bats was noted internally or externally during the survey. It is anticipated that due to the unlined nature of the roof any evidence of bats utilising the identified lifted tiles would fall through into the loft.

It should be noted that external evidence can often be washed and weathered away.

B1 - breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

Bat foraging and commuting habitat

Broad hay wood to east and south of the site along with Holcombe brook will provide suitable foraging and commuting habitat for local bats. Planting within the existing garden may also be utilised by local bats.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Bats

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommend additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform an EPSL application to Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey.

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommend additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence or likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey. If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSL application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted for further advice.

Birds

Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 4 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise of the erection of a replacement dwelling.

Table 4: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)</i>
Roosting bats (B1)	Three EPSL's were noted within 2km of the site with the closest being located approximately 687m north east of the site. B1 has low value for roosting bats. A low number of lifted tiles were noted across the roof of B1 which could be utilised by crevice dwelling species however no evidence of this was noted during the internal inspection as no dropping were noted having fallen through the unlined roof into the loft space.	The proposed development will result in the demolition to this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Bats are considered unlikely to be present in B1 but, as stipulated in professional survey guidance, low value buildings typically require one bat emergence or re-entry survey to be completed during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost. An alternative approach to a single bat emergence or re-entry survey, which has a low detection rate for bat roosts and is often an unreliable way of identifying the presence of bat roosts, would be to produce a Bat Mitigation Plan. This should include measures to be implemented during demolition and what to do if a bat is found during works. Demolition works would need to be supervised by a licensed bat consultant. Acceptance of a Bat Mitigation Plan would be at the discretion of the Local Planning Authority, given that this would be a deviation from standard survey guidance.	The installation of a minimum of two bat boxes on mature trees around the site boundaries or on retained buildings will provide additional roosting habitat for bats e.g. 2F Schwegler Bat Box (trees) 1FF Schwegler Bat Box (trees) 2FN Schwegler Bat Box (trees) Beaumaris Bat Box (buildings) Vivara Pro Woodstone Bat Box (buildings) Or a similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. Alternatively, bat boxes could be incorporated into new buildings on the site e.g. Habibat Bat Box Schwegler 1FR Bat Tubes Bat tubes should be inserted into the fabric of the building during construction, positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and

				from the entrance and facing landscapes areas, away from artificial light.
Foraging and commuting bats	Trees and shrubs within the existing garden area could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	It is to the consultants understanding that the proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. The proposed development may include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimnable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: • Planting of native tree, shrub and hedgerows to increase foraging opportunities.

Nesting birds (B1)	No evidence, historic or current, of nesting bird was noted during the survey.	None.	None.	The installation of a minimum of four bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Other ecological constraints	None identified.	N/A	N/A	N/A

5.0 Bibliography

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? <http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Google Earth. Accessed on 15/02/2023.
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.
- Magic Database. <http://www.magic.gov.uk/MagicMap.aspx> Accessed on 15/02/2023.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- National Planning Policy Framework (2021) <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Natural England Designated Sites View. <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx> Accessed on 15/02/2023.
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.

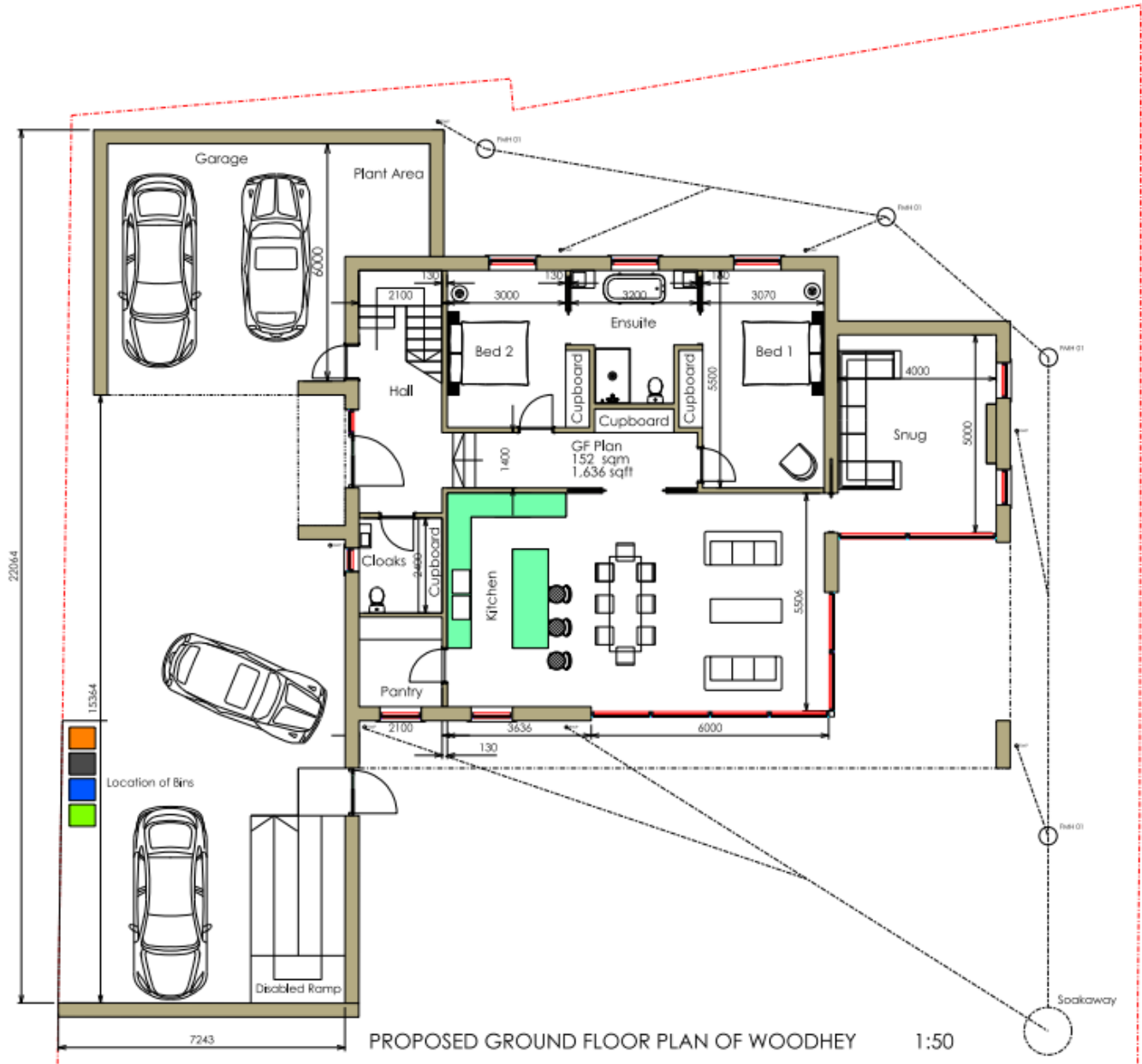


SITE LOCATION PLAN 1:1250



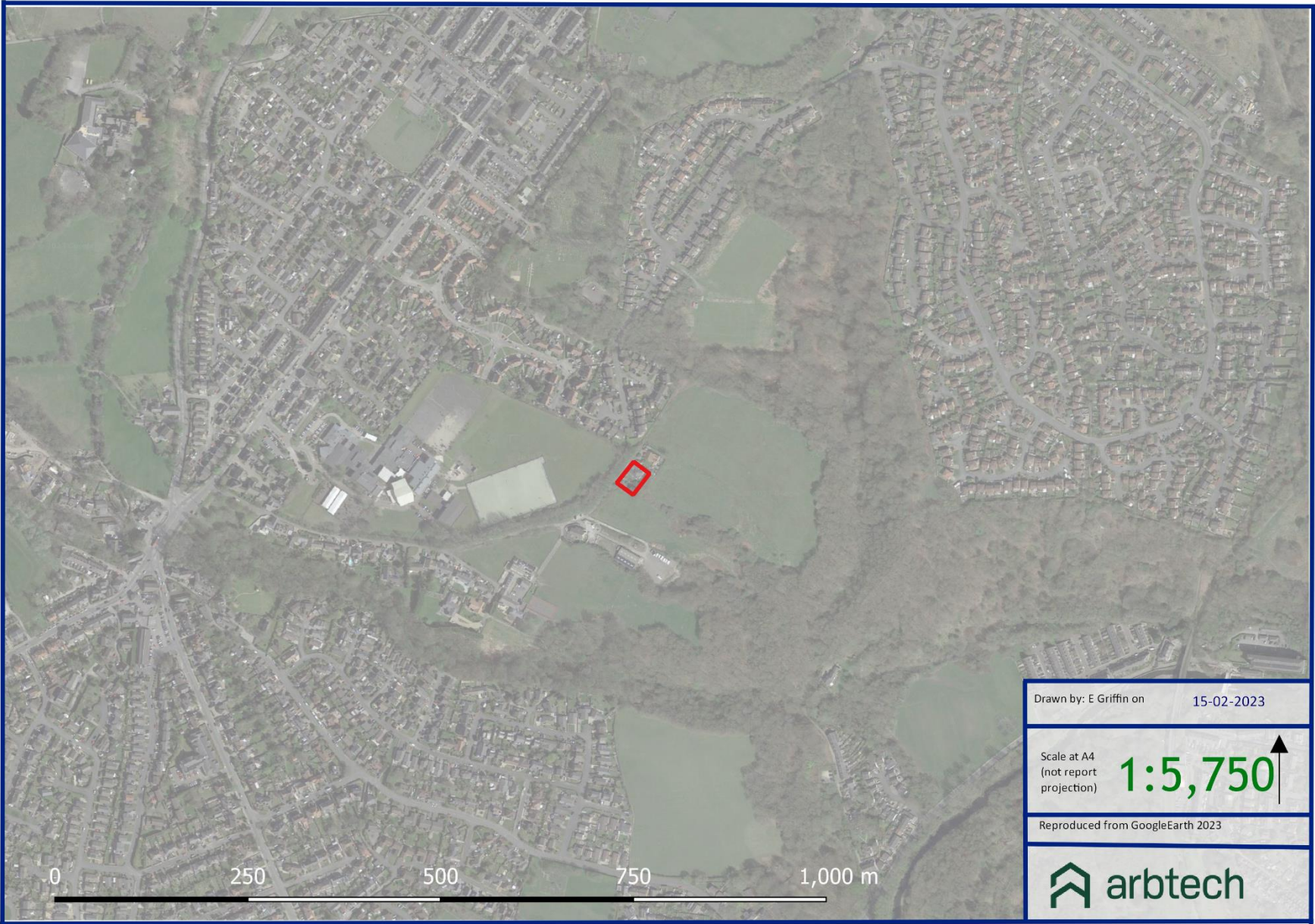
PROPOSED SITE LAYOUT 1:200

[illegible]



Revision	Description	By	Date	Revision	Description	By	Date
1	Initial Design	SC	05.12.2022	2	Final Design	SC	05.12.2022
3	Final Design	SC	05.12.2022	4	Final Design	SC	05.12.2022
5	Final Design	SC	05.12.2022	6	Final Design	SC	05.12.2022
7	Final Design	SC	05.12.2022	8	Final Design	SC	05.12.2022
9	Final Design	SC	05.12.2022	10	Final Design	SC	05.12.2022
11	Final Design	SC	05.12.2022	12	Final Design	SC	05.12.2022
13	Final Design	SC	05.12.2022	14	Final Design	SC	05.12.2022
15	Final Design	SC	05.12.2022	16	Final Design	SC	05.12.2022
17	Final Design	SC	05.12.2022	18	Final Design	SC	05.12.2022
19	Final Design	SC	05.12.2022	20	Final Design	SC	05.12.2022
21	Final Design	SC	05.12.2022	22	Final Design	SC	05.12.2022
23	Final Design	SC	05.12.2022	24	Final Design	SC	05.12.2022
25	Final Design	SC	05.12.2022	26	Final Design	SC	05.12.2022
27	Final Design	SC	05.12.2022	28	Final Design	SC	05.12.2022
29	Final Design	SC	05.12.2022	30	Final Design	SC	05.12.2022
31	Final Design	SC	05.12.2022	32	Final Design	SC	05.12.2022
33	Final Design	SC	05.12.2022	34	Final Design	SC	05.12.2022
35	Final Design	SC	05.12.2022	36	Final Design	SC	05.12.2022
37	Final Design	SC	05.12.2022	38	Final Design	SC	05.12.2022
39	Final Design	SC	05.12.2022	40	Final Design	SC	05.12.2022
41	Final Design	SC	05.12.2022	42	Final Design	SC	05.12.2022
43	Final Design	SC	05.12.2022	44	Final Design	SC	05.12.2022
45	Final Design	SC	05.12.2022	46	Final Design	SC	05.12.2022
47	Final Design	SC	05.12.2022	48	Final Design	SC	05.12.2022
49	Final Design	SC	05.12.2022	50	Final Design	SC	05.12.2022
51	Final Design	SC	05.12.2022	52	Final Design	SC	05.12.2022
53	Final Design	SC	05.12.2022	54	Final Design	SC	05.12.2022
55	Final Design	SC	05.12.2022	56	Final Design	SC	05.12.2022
57	Final Design	SC	05.12.2022	58	Final Design	SC	05.12.2022
59	Final Design	SC	05.12.2022	60	Final Design	SC	05.12.2022
61	Final Design	SC	05.12.2022	62	Final Design	SC	05.12.2022
63	Final Design	SC	05.12.2022	64	Final Design	SC	05.12.2022
65	Final Design	SC	05.12.2022	66	Final Design	SC	05.12.2022
67	Final Design	SC	05.12.2022	68	Final Design	SC	05.12.2022
69	Final Design	SC	05.12.2022	70	Final Design	SC	05.12.2022
71	Final Design	SC	05.12.2022	72	Final Design	SC	05.12.2022
73	Final Design	SC	05.12.2022	74	Final Design	SC	05.12.2022
75	Final Design	SC	05.12.2022	76	Final Design	SC	05.12.2022
77	Final Design	SC	05.12.2022	78	Final Design	SC	05.12.2022
79	Final Design	SC	05.12.2022	80	Final Design	SC	05.12.2022
81	Final Design	SC	05.12.2022	82	Final Design	SC	05.12.2022
83	Final Design	SC	05.12.2022	84	Final Design	SC	05.12.2022
85	Final Design	SC	05.12.2022	86	Final Design	SC	05.12.2022
87	Final Design	SC	05.12.2022	88	Final Design	SC	05.12.2022
89	Final Design	SC	05.12.2022	90	Final Design	SC	05.12.2022
91	Final Design	SC	05.12.2022	92	Final Design	SC	05.12.2022
93	Final Design	SC	05.12.2022	94	Final Design	SC	05.12.2022
95	Final Design	SC	05.12.2022	96	Final Design	SC	05.12.2022
97	Final Design	SC	05.12.2022	98	Final Design	SC	05.12.2022
99	Final Design	SC	05.12.2022	100	Final Design	SC	05.12.2022

Appendix 2: Site Location Plan



Appendix 3: Bat Survey Plan



Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.