

Greenscape Environmental Ltd

BEESELEY

ECOLOGICAL APPRAISAL

**REDBROOK VIEW
REDBROOK
MAELOR
WHITCHURCH
SY13 3AD**

MARCH 2019

2162 1903R

Report by Demi Cook BSc (hons)

Report Classification:		Ecological Appraisal	
Report Status:		Final	
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	Name	Signature	Date
Report by:	D. Cook BSc(hons) Assistant Consultant		March 2019
Reviewed by:	L. Maggs BSc(hons) Lead Consultant		March 2019

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The report should be read in its entirety.

Questions arising from the survey report should be directed to the author of this report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for one year for planning purposes after which time further survey information may be required.

Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

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1 Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Andrew Hewitt of ARH Architectural Design, on behalf of Mr and Mrs Beesley to undertake an Ecological Appraisal of offices at Redbrook View, Maelor to provide supporting information for a planning application for the conversion of the current offices to 2 residential cottages.

The survey report has three principal aims:

- to provide an initial appraisal of the ecological value of the site in local context
- to provide details supporting further surveys that may be required
- to identify potential ecological constraints relating to the development and recommend measures to avoid, reduce or manage negative effects and to provide a net ecological gain

1.2 Methodology

The appraisal of the site included a desk study of the area, reviews of other surveys previously conducted in the area by Greenscape Environmental and a phase 1 environmental appraisal undertaken at the site, OS grid reference SJ50844119 on the 6th March 2019 by D Cook and L Maggs.

1.3 Key Issues

No designated sites were found within the vicinity of the site. Records of protected species within 2km include common pipistrelle bats and wren.

The main building is a two-storey brick office and flat, with a slate tile roof and slate hanging tiles to the rear, on the first-floor extension. There are few gaps along the ridged tiles, and any present are considered to be continuous to both sides. The only suitable access point for bats was found to the rear, via an exposed end to the plastic fascia board. This was investigated with an endoscope and was found to have no evidence of bats. There is also a small one-storey brick outbuilding, with well fitted semi-concrete roof tiles and wooden soffits.

The site is considered to be of low to negligible ecological value for bats, due to no evidence being found throughout the phase 1 survey.

1.4 Impacts and Mitigation Measures

It is recommended that the biodiversity is enhanced post-construction with the inclusion of an integral bat box and two bird boxes. The method statements provided in this report will be followed and works will be conducted at a suitable time of year to minimise negative impact on bats.

The client has agreed to installation of an integral bat box a house martin nest box and sparrow terrace box, on the new extension to the east face of the building.

There are no other ecological constraints to the development as currently proposed.

2 Introduction

This report has been compiled by Demi Cook BSc (hons) who has 2 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

For details of surveyors and licences please see Appendix A.

2.1 Project Background

Greenscape Environmental Ltd was commissioned by on behalf of Mr and Mrs Beesley of Redbrook View, Maelor, to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of ecological value, as part of the planning application for the development of two cottages in place of the current offices at Redbrook View, Maelor.

The project involves the conversion of a current two storey office block into 2 two storey cottages, with gardens.

2.2 Purpose of the Report

The aim of this survey is to locate and describe, as far as reasonably practicable, evidence of wildlife, including all protected and Biodiversity Action Plan (BAP) priority species, which may be disturbed or lost in the event of development.

The purpose of the report is to:

1. Identify the key ecological constraints to the proposed development
2. Inform planning to allow significant ecological effects to be minimised or avoided wherever possible
3. Allow any necessary mitigation or compensation measures to be developed following the Mitigation Hierarchy
4. Identify any additional surveys that may be required to inform the ecological assessment
5. Identify the opportunities offered by a project to deliver ecological enhancement

The Local Planning Authority (LPA) requested further information regarding bats as the site meets at least one of the trigger points set out in section 1.2.3.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines, Bat Conservation Trust (2016).

2.3 Planning Policy and Legislation

This section provides a brief summary of the key national and local planning policies and legislation with an intention to identify those to be of most relevance to ecology and provide context to the surveys conducted. Survey findings were considered in line with the following.

The Conservation of Habitats and Species Regulations (2017) – as listed in:

- Schedule 2. European protected species of animals
- Schedule 5. European protected species of plants

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals
- Schedule 8. Protected plants

Countryside and Rights of Way Act (2000)

Natural Environment and Rural Communities Act 2006 (NERC 2006)

National Planning Policy Framework (2018): Policy 15 - Conserving and Enhancing the Natural Environment.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011)

Section 7 of the Environment Act (Wales) 2016

ODPM Circular 06/2005: Biodiversity and Geological Conservation-Statutory obligations and their impact within the Planning System

Wrexham Unitary Development Plan – EC6 Biodiversity Conservation

2.4 Site Context and Location

The site is located in Redbrook, Maelor, Wrexham, OS grid reference SJ50844119. It is set in a rural environment surrounded by a small collection of amenities, including a hotel to the southeast. The A495 can be found south of the site, running from the west to the east. Running north, northeast to the south there is the Red Brook. The remainder of the surroundings are arable and improved grasslands. There is medium connectivity to the surrounding countryside via tracks and bridledways to the east of the site and hedgerows connecting the immediate neighbouring lands. These hedgerows may provide foraging and commuting opportunities for bats and birds.

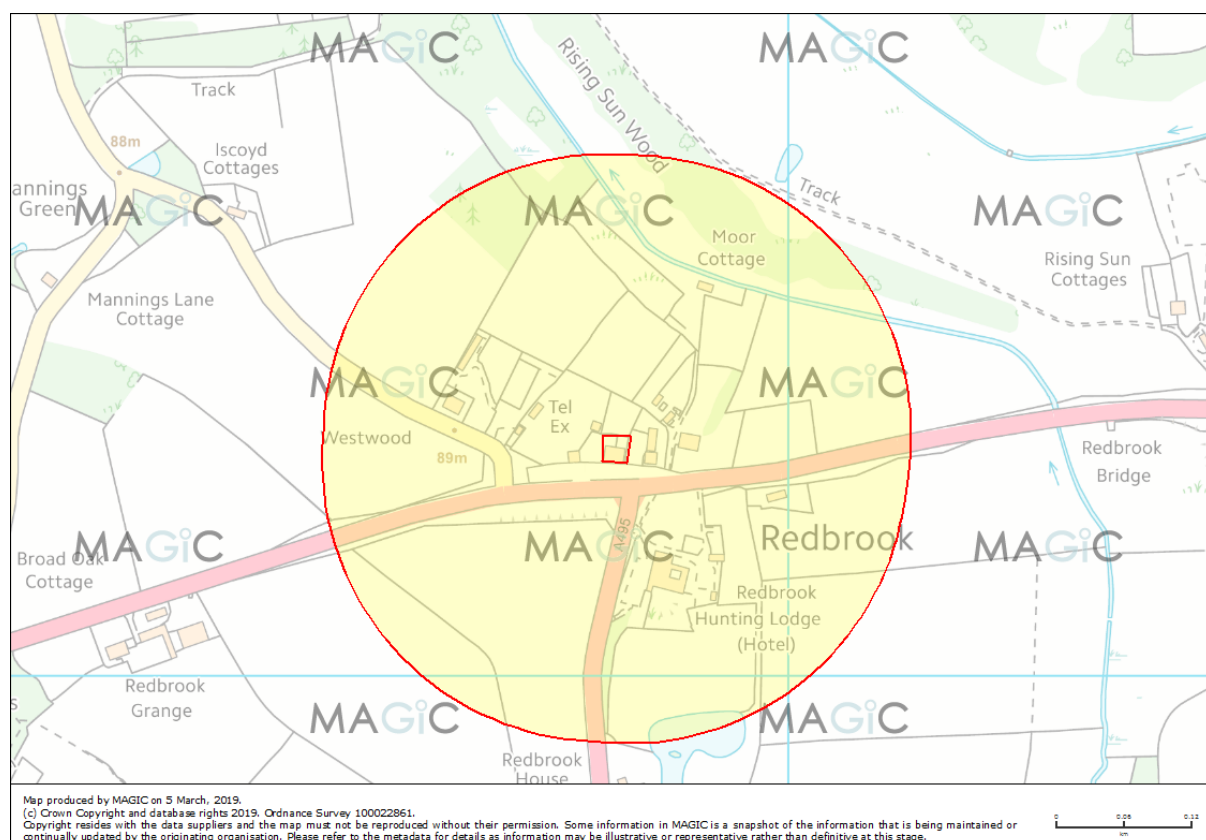


Figure 2.1. An OS map showing the site (centre, highlighted) with a 250m buffer

2.4.1 Date and Survey Conditions

The phase 1 ecological appraisal was undertaken at the site on 6th March 2019 by D. Cook BSc (hons), assisted by L. Maggs BSc (hons). The conditions on the survey dates were optimal for the type of survey conducted.

Table 2.1: Survey date and conditions

Date	Time	Temp °C Start- Finish	Sunset / Sunrise	Condition
06/03/19	1000-1100	9-9	-	No wind, initially no rain, but slight drizzles towards the end of the survey.

3 Methodology

Broad methodologies for data collection and interpretation were informed by guidance outlined in CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas and known records of protected/notable species. This assists with the evaluation of the ecological value of the site. This was undertaken in March 2019.

This level of desk study is considered adequately proportionate to the development proposals, the low complexity of the site and its surrounding landscape context.

3.2 Field Survey

3.2.1 Habitats

An assessment of habitats was conducted following the "Extended Phase 1 Methodology" (Institute of Environmental Assessment 1995) and broadly the JNCC Handbook for Phase 1 Surveys 2010. Target notes were used where appropriate to identify potential for protected or notable species or habitats, and to give more detailed site descriptions.

The level of survey is aimed to identify field signs of, or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

3.3 Species Survey

Buildings were assessed for potential for bat roosts, foraging and commuting. This was conducted in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, BCT, Collins (ed.) (2016).

Buildings were assessed for potential for nesting birds.

3.4 Constraints of the Survey

The roof void was unable to be accessed. However, as there were no suitable access points by raised or missing tiles, this is considered to be negligible for this survey. No other constraints were found during the survey.

It was conducted at an optimal time of the year for the assessment of fauna. Standard techniques were followed, as outlined in Appendix B. No specific constraints have been identified.

4 Site Description

4.1 Desk Study

4.1.1 Designated Sites

Figure C.1 in Appendix C shows a map from Natural England indicating that the site is not within 1km of a designated area.

4.2 Field Survey-Phase 1 Description and Observations

The site is made up of two structures. The main two-storey office and flat, with a rear extension and a small one-storey outbuilding.

The main building is a two-storey brick office and flat. The exterior of the building has been painted, covering up any cracks or crevices in the mortar. The roof is comprised of slate roof tiles, which are well fitted, with only one obvious access point to a section of the roof which will be undisturbed during construction. One continuous gap is evident in the ridged tiles to the west of the chimney. Slate hanging tiles can be found to the rear, on the first-floor extension. Plastic and wooden fascia boards can be found along the edges of the building.

The small one-storey brick outbuilding is well mortared, showing no cracks or crevices, with well fitted semi-concrete roof tiles and wooden soffits. A block of wood was attached below the wooden soffits. This had a hole located in the centre and was found to have an old nest inside.

Table 4.1: Summary of habitats on and around site

	Habitat	JNCC code
i.	Buildings	J3.6
ii.	Hardstanding	J4
iii.	Amenity grassland	J1.2
iv.	Fence	J2.4



Figure 4.1. A map showing the JNCC phase 1 habitat classification codes for the site

4.2.1 Main building

The main building is composed of the original cottage and an extension into the rear garden. The building is composed of brick and is well mortared and then painted, showing no evidence of cracks or crevices accessible for bats. No greasing or staining was present along the brickwork.



Figure 4.2: Photo of the front of the main building, showing sealed brickwork and slate tile roof and canopy.



Figure 4.3: Photo of the rear of the main building, showing hanging tiles and slate tile roof and well mortared brickwork

The slate tile roof of the building shows few opportunities for crevice dwelling bats and no staining or greasing was evident. The slate hanging tiles showed no access points for bats.



Figure 4.4: Flush hanging tiles



Figure 4.5: Raised ridge tile to the west of the chimney, showing continuous gap.

An internal assessment of the building showed no evidence of bats. No loft hatch was found to gain access to the small roof void. All storage areas were checked for the potential to support protected species.



Figure 4.6: Internal assessment of the flat to the first floor

An exposed plastic fascia board was found to have potential to support bats. However, investigation with an endoscope found no evidence of bats using the board as an access point.



Figure 4.7: Exposed plastic fascia board circled in red

4.2.2 Outbuilding

The small one-storey brick outbuilding is well mortared, showing no cracks or crevices, with well fitted semi-concrete roof tiles and wooden soffits. The out building is connected to the main building by a joining wall.



Figure 4.8: Aerial photo of the outbuilding used as an external toilet



Figure 4.9: Photo of the north facing side of the outbuilding and main building, showing hanging tiles

No greasing or staining was found on the roof tiles or the wooden soffits. A wooden block below the soffits was found with a hole in it. The hole was investigated with an endoscope and was found to have an inactive nest inside. No evidence of bats was found.

5 Evaluation of Results

5.1 Potential Impacts on Designated Sites and Recorded Species

5.1.1 Designated Areas

The nearest SSSI is approximately 2.3km away. This is Greenfields and is a local nature reserve. Due to the distance from the site to the local nature reserve and the small scale of the development, it is deemed that no negative impact will occur to the local nature reserve.

5.2 Habitats on Site

Table 5.1: Summary of habitats on site

Habitat type	Is the habitat capable of supporting protected species	Impact without consideration
Buildings	One inactive nest found on outbuilding No evidence of bats found	Potential to disturb nesting birds

No supportive habitats were found to immediately surround the site.

5.3 Ecologically Important Species

Table 5.2: Summary of protected species on site with recommendations

Species	Observations	Impact without consideration	Recommendations
Mammals			
Bats	Some suitable habitat around site, no evidence seen	No negative impact	All clearance to be undertaken outside nesting period Feb-Aug inclusive. Integral bat box to be installed
Birds			
Nesting birds	One inactive nest found on the outbuilding	Disturbance of nesting birds	Demolition to be undertaken outside nesting period Feb-Aug inclusive. New nest box provision

5.3.1 Bats

All bat species are protected under the Conservation of Habitats and Species Regulations 2017 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- deliberately capture or kill any wild animal of a European Protected Species.
- deliberately disturb any such animal.
- damage or destroy a breeding site or resting place of such a wild animal.
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

To allow a development that might result in an offence, a derogation licence can be sought via the implementation of a European Protected Species Licence. This is provided by Natural Resources Wales.

Work can be conducted under a derogation licence from Natural Resources Wales providing suitable compensation and mitigation is provided and the "three tests" can be met. These are:

1. Regulation 55(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety" or other imperative reason of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
2. Regulation 55(9)(a) States: the appropriate authority (Natural England) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative"
3. Regulation 55(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied "that the action licensed will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in its natural range."

Recommendations are made in line with the mitigation hierarchy as outlined in the NPPF (2012). The intention is to first avoid, then mitigate or compensate for any potential breaches in legislation as outlined in the Habitats Directive. Recommendations for proportional enhancement measures as required under section II of the NPPF and section 40 of the NERC Act 2006 are also provided.

No evidence of bats was found on site, the main area with potential was found under the ridge tiles of the main cottage that will not be directly affected by the proposed demolition and new build. Work will follow a method statement to minimise the risk to individual bats during the soft demolition of the outbuilding and parts of the extension.

5.3.2 Birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), birds, their nests and young are all protected from damage, particularly during the breeding season. The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Take damage or destroy the egg of any wild bird.

- To have in one's possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg.

Only one birds nest was found on site, but if this was to be reused prior to demolition then an offence would be committed by disturbance of nesting birds.

It will be recommended that nesting boxes are erected post-construction on the east facing wall, to provide a minor enhancement for any potential nesting birds.

6 Impacts and Mitigation Measures

To reduce or minimise negative impact on biodiversity, the following recommendations have been made. The client has agreed to install an integral bat box and two bird boxes on the east facing walls.

6.1 Bats

6.1.1 Rigid Method Statement

It is recommended that the work be conducted with the presence of an Ecological Consultant for the soft demolition works, particularly around tiled areas.

1. An Ecological Consultant (EC) will be hired to oversee works in areas sensitive to bats and to provide a toolbox talk.
2. The developer and contractors will be made aware that there is a possibility that bats may be found during works and will be advised to work in a way to ensure bats are not harmed during the soft demolition of the roof, and at the hanging tile wall. They will be provided with a simple emergency procedure to follow if bats are found at any stage of the work on site. It will be ensured the method statement is on site.
3. A pre-commencement check will be conducted by the EC using a strong torch and borescope where appropriate.
4. The EC will be present on site when the roof is being partially removed, carefully by hand, particularly around the connection to the extension.
5. If a bat is found when the EC is not present, then work will stop in that area IMMEDIATELY and the EC contacted for advice.
6. The bat can only be handled by the EC or authorised person unless it is in immediate danger. The bat must be carefully placed in a well-ventilated lidded box with a small container (preferably a plastic bottle lid) with water in it. The container must be kept in a quiet and safe place.
7. Care should be taken to avoid rousing the bat whilst transferring to a suitable location, this may be a suitable hibernation box or alternative roost. This must provide a safe, quiet environment with stable cool temperature with relatively high humidity which is safe from disturbance.
8. If the bat is underweight or injured, it will be cared for by an experienced bat carer until such times that is strong enough to be released into a suitable alternative replacement roost on site.
9. The bat compensation will be created following the instructions in the method statement. The client will agree to the maintenance of the integral bat box.
10. Work in any areas sensitive to bats will not take place if the temperature has been below 4°C for 4 consecutive days and nights.
11. Once the building has been re-roofed bat access will be limited by sealing all doors and windows, thus reducing the potential for bats to re-enter where they are not expected.

6.1.2 Enhancements for Bats

1. It is recommended that permanent provision will be made for roosting opportunities for bats with the inclusion of an integral bat box in the extension for the east facing wall. This will be erected at a height of 3-4m.



Figure 6.1. Integral bat box

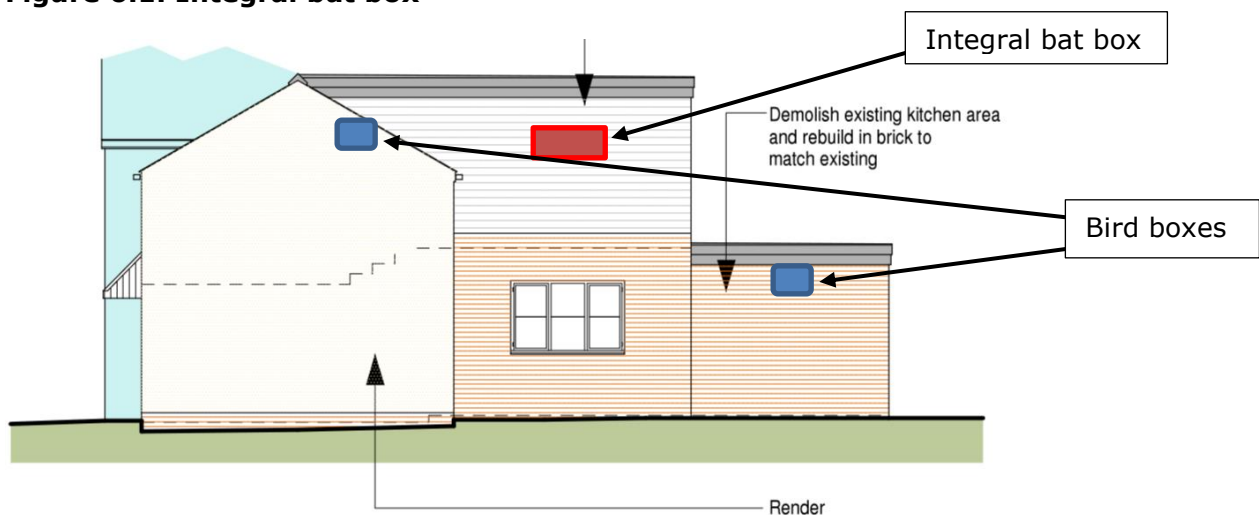


Figure 6.2: side elevation of the proposed extension showing the location of the enhancement for bats (in red) and birds (in blue)

6.1.3 Lighting

1. A lighting scheme will be drawn up in line with ILP and BCT Guidance Note 08/18.
2. All of the newly proposed external lighting will be directed away from any vegetated boundary features to retain dark corridors for commuting bats across the site.
3. There will be no direct illumination of the site to the rear of the development.
4. There will be no illumination of the integral bat box to the east of the site.
5. All domestic external lighting will be below 1 lux, orientated towards the ground and set on a short timer, controlled by PIR (Passive Infra-Red).

6.2 Birds

6.2.1 Reasonable Avoidance Measures

1. Any building demolition will occur out of the bird nesting season, which is February to August inclusive. If this is not possible, a suitably experienced ecologist will conduct a check within the 24 hours prior to work commencement to ensure no nesting birds will be affected.
2. All nesting birds will be left undisturbed until young have fledged. A 4m buffer will be left.
3. Once work has commenced on the building, and it is confirmed that there are no nesting birds the building can be sealed to prevent birds gaining access during works.

6.2.2 Enhancements for Birds

1. It is recommended that two bird boxes are erected around the site to provide an enhancement for passerine birds. This will include the installation of a pair of house martin nest boxes to the eastern extension and a sparrow terrace box to the original eastern face of the building.



Cedarwood Sparrow Terrace



House Martin Nest Box

Figure 6.3: Provision for bird boxes

7 Concluding Remarks

The survey has focused on habitats to be destroyed as part of this development and the potential for disturbance or damage of protected species.

The building is of low value for bats, with no potential roost features inside the building, and the main areas of interest being the exposed plastic fascia board on the NE face of the building. The plastic fascia was examined with an endoscope and no evidence of bats was found.

Few gaps were evident between the slate roof tiles; however, no staining or greasing was evident and only a small section of the north facing roof is to be removed to connect the new extension.

The gaps in the tiles still have potential for supporting bats, so it is recommended that these are removed by soft demolition (hand) to minimise the risk to bats.

Recommendations have been made to improve the habitat for bats and birds by installing an integral bat box to the east facing extension and by installing two bird boxes to the same wall.

The method statements provided in this report will be followed, and works will be done at a suitable time of year. This will result in there being no further ecological constraints to the development.

Appendices

- A** **Details of Surveyors**
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- B** **Detailed Methodology**
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- C** **Desktop Study**
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- D** **Site Plans**
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A Details of Surveyors

Table A.1: Surveyor experience and licences

Name	Membership of associations/ experience	Licenses
Peta Marshall BSc(hons)MA	Principal Consultant MCIEEM PIEMA Peta has a degree in Applied Biology and has been working in commercial environmental assessment for over 10 years. She has 10+ years' experience surveying for protected species. As a member of the CIEEM she is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. Registered Consultant for Low Impact Class Licence for Bats <u>England:</u> Bats - 2015-12200-CLS-CLS BLICL - RC084 GCN - 2015-18939-CLS-CLS Dormice - 2017-29225-CLS-CLS <u>Wales:</u> Bats - 77554:OTH:CSAB:2017 GCN - 77574:OTH:SA:2017
Logan Maggs BSc(hons)	Lead Consultant Logan has a degree in Conservation and Land Management. He has 10 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS <u>Wales:</u> Bats - 75748:OTH:CSAB:2017 Newts - 79665:OTH:SA:2018
Ben Jones BSc(hons) MSc	Lead Consultant Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 4 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS <u>Wales:</u> Bats - S085098/1 GCN - 78716:OTH:SA:2018
Brian Marshall	Technical Director FIEMA CEnv PEA Consultant with over 35 years in the Environmental Sector	
Demi Cook BSc(hons)	Demi has a degree in Zoology with Herpetology from Bangor University. She has been assisting with bat activity surveys for four years, and has experience working with bats in England and Wales.	

B Detailed Methodology

Desk Study

Table A: Data sources

Organisation/Resource	Information Assessed
Freely available online species datasets (NBN Atlas)	Protected/UK BAP Species records (2km)
MAGIC website	International statutory designations (1km) • Special Protection areas (SPA) • Special Areas of Conservation (SAC) • RAMSAR sites National statutory designations (1km) • Sites of Special Scientific Interest (SSSI) • National Nature Reserves (NNR) EPS Licenses for protected species (2km)

The National Biodiversity Network (NBN) Atlas was checked to identify the protected species that have formally been recorded in the area. This was considered proportionate to the size of the development, as well as the timescales allowed by the planning authority.

As the development is a small-scale householder application a full data search is not required, a search was conducted on NBN for commercially available records.

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Appendix C.

Table B.1 Criteria of ecological values

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat on the county BAP or a site that supports a viable population of a county BAP species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.

Species Survey

Bats

Buildings were assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF) The potential suitability of the structures assessed was assigned a rating of low to high in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

An internal assessment of all structures was undertaken by a Natural England licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

All trees examined were categorised on their potential roost features. These features include cracks, splits in limbs, cavities, loose bark and thick stemmed ivy. Where appropriate these features were assessed using binoculars and/or endoscopes.

Daytime surveys were conducted with the aid of a strong torch and a pair of Pentax Papilio 8.5x21 close focus binoculars. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats.
- Presence of roosting or dead bats in or behind any object.

Birds

Evidence of nesting birds, including barn owls using a building involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers

C Desktop Study

Designated Sites

MAGiC

Designated sites within 1km of Redbrook View, Maelor

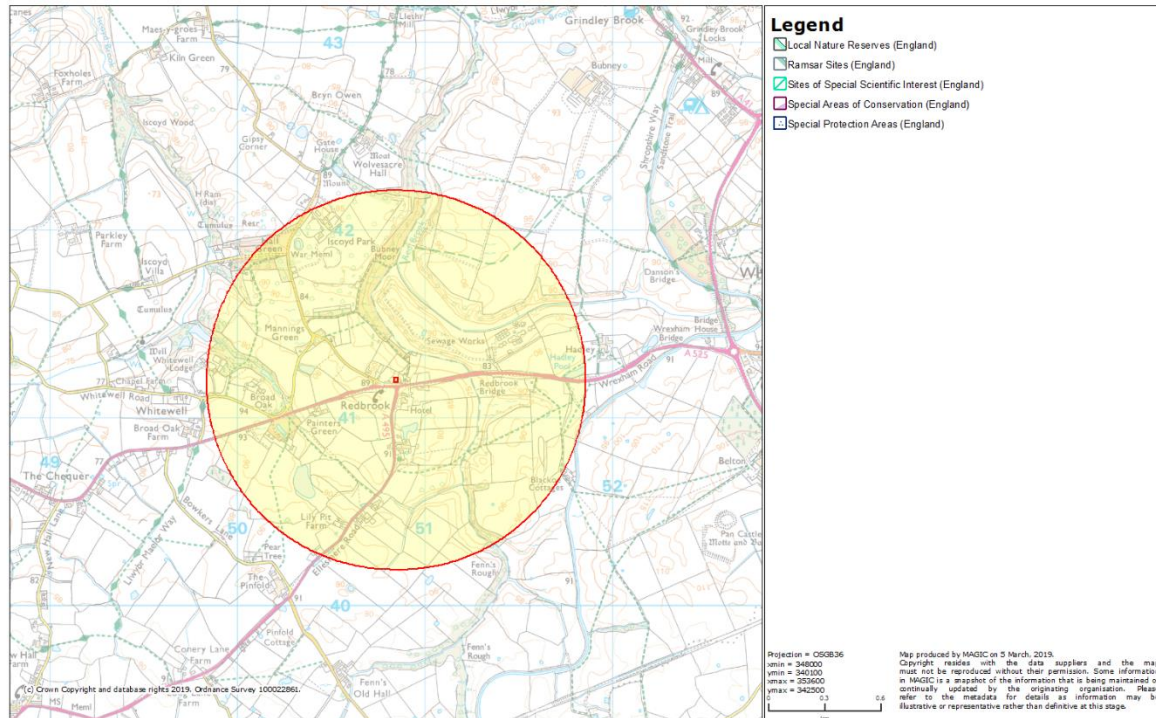


Figure C.1: OS map showing no designated sites within 1km of Redbrook View, Maelor.

The map from Natural England presented in Figure C.1 indicates that the site is not within 1km of a designated area.

The nearest designated site is approximately 2km east of the site. This is the Greenfields and is a Local Nature Reserve.

Records

A desk search was conducted focusing on the area within 2km of the site. Unless stated otherwise, all records were provided to the NBN Atlas under the Creative Commons licence: CC-BY and OGL. The following species have official records in that area:

Bat species:

Common pipistrelle (*Pipistrellus pipistrellus*)

The nearest records are of common pipistrelle bats approximately 1.7km southeast just southwest of Belton Farm.

Bat species data was provided to the NBN Atlas by Mammal records from Britain from the Atlas of Mammals (1993), with some subsequent records.

Birds

Wren (*Troglodytes troglodytes*)

Bird species data was provided to the NBN Atlas by RSPB Big Garden Birdwatch winter sightings in the UK in 2009.

Granted European Protected Species Licences

MAGiC

EPSL Within 2km of Redbrook View, Maelor

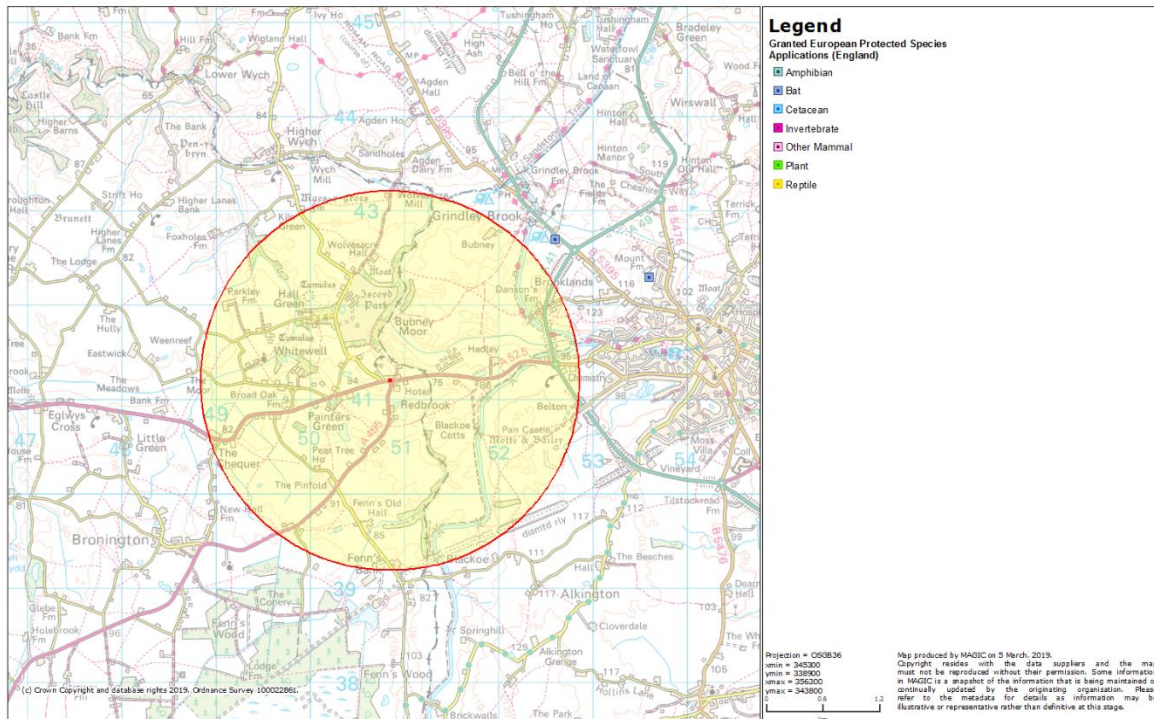


Figure C.2. OS map showing no EPSP have been granted within 2km of Redbrook View, Maelor.

No EPS licences have been granted within 2km of the site. The nearest bat licence began in 2012 for soprano pipistrelle bats at a site approximately 2.3km to the northeast.

European Protected Species Licence data gathered from Magic on the Map was provided by Natural England.

D Site Plans



Figure D.1: existing site plan to the left and proposed site plan to the right, for Redbrook View, Maelor

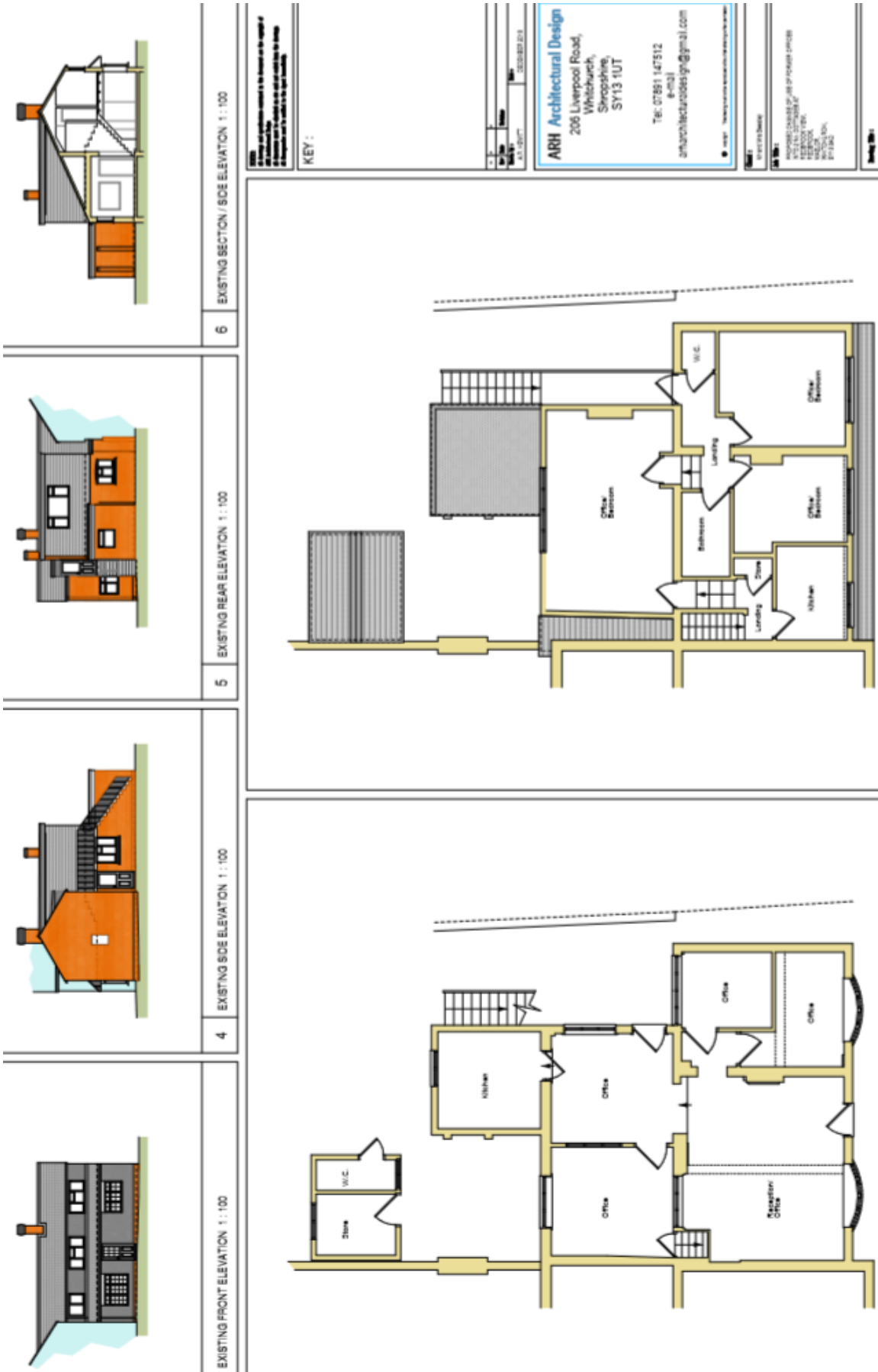


Figure D.2: Existing site elevation



Figure D.3: Proposed site elevations

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