

Preston Farm, Shoreham, Kent.

Bat Emergence Survey

A Report for Mr D. Bedford

October 2019



www.greenspace-ecology.co.uk

info@greenspace-ecology.co.uk

Preston Farm, Shoreham, Kent

Bat Emergence Survey

Controlled Copy

01 of 02

01 Mr D. Bedford

02 Greenspace Ecological Solutions Ltd

Report Contributors: Martin Rann.

Proofread by: Joseph Dyson ACIEEM.

*The content of this report is the responsibility of Greenspace Ecological Solutions Ltd.
It should be noted that whilst every effort has been made to meet the client's requirements, no site survey can ensure complete assessment or prediction of the changeable onsite environment. Furthermore, should more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.*

Report Number J20717_P2

Greenspace Ecological Solutions Ltd.
Suite H3, Blackham Court,
Withyham, East Sussex,
TN7 4DB

Tel: 01892 457062

www.greenspace-ecology.co.uk

info@greenspace-ecology.co.uk

CONTENTS

1	PROJECT OVERVIEW	1
2	INTRODUCTION	2
2.1	Context.....	2
2.2	Site Location.....	2
2.3	Site Description	3
2.4	Policies and Legislation	3
2.5	Objectives of the Survey	4
2.6	Survey Constraints	4
3	SURVEY METHODOLOGY.....	5
3.1	Emergence/Re-entry Surveys	5
4	SURVEY RESULTS	7
4.1	Emergence/Re-entry Surveys	7
4.2	Summary of Results	10
5	CONCLUSIONS AND RECOMMENDATIONS.....	11
6	SUMMARY	14
7	REFERENCES	15

FIGURES

Figure 1 – Bat Surveyor Locations

1 PROJECT OVERVIEW

Client:	Mr D. Bedford
Site Address:	Preston Farm, Shoreham, Kent, TN14 7UD
Attending Ecologists:	Guy Newman MCIEEM James Johnston ACIEEM Joseph Dyson ACIEEM Matthew Rohner Martin Rann Tanya Rowlinson Tabitha Plummer Gemma Abela Mike Marriott Peter Scrimshaw Steve Songhurst Dominic Wallace Jacob Tassaker Vickie Gorst
Survey Dates:	19 th August 2019 22 th August 2019 5 th September 2019 9 th September 2019 24 th September 2019
Site Proposals:	Development of workspaces for small rural businesses.
Associated Planning Reference Number:	Not known

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Previous Reports:	Preliminary Ecological Appraisal, Greenspace Ecological Solutions, May, 2019

2 INTRODUCTION

2.1 Context

2.1.1 In response to recommendations made within a previously conducted Preliminary Ecological Appraisal (PEA) at Preston Farm, Kent, Greenspace Ecological Solutions (GES, 2019) were commissioned to undertake bat emergence surveys of the building to be affected.

2.1.2 The results of the emergence surveys, as described in this report, serve to ensure that the Favourable Conservation Status (FCS) of bats is maintained throughout the development and that the proposal remains compliant with existing legislation and planning policies which serve to protect bats and their roosts. Where appropriate, proportionate mitigation to be incorporated within the design of the building, is provided within this report.

2.2 Site Location

2.2.1 The site is situated in a rural location approximately 1.36km north east of the village of Shoreham in Kent at Ordnance Survey (OS) Grid Reference: TQ 52655 62672. The geographical location of the site is depicted in Image 1.



Image 1: Geographical location of Preston Farm.

2.3 Site Description

- 2.3.1 The site is approximately 1.9 hectares (ha) in area and comprises a large group of agricultural and commercial buildings as well as associated areas of hardstanding and amenity gardens.
- 2.3.2 The surrounding landscape is predominantly farmland with scattered rural dwellings and blocks of woodland which are connected by hedgerows.

2.4 Policies and Legislation

- 2.4.1 The National Planning Policy Framework 2019 (NPPF) aims to protect species of significant conservation importance in England (in this case bats), as covered by wildlife legislation (see below), NPPF, national and local Biodiversity Action Plans (BAP's) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Local planning authorities have an obligation to protect such species and are also required to seek opportunities to promote and enhance biodiversity in accordance with the above legislation, policies and plans.
- 2.4.2 All British bat species and their places of rest and shelter receive UK and European protection under the Conservation of Habitats and Species Regulation 2018 (Habitats Regulations 2018) and the Wildlife and Countryside Act (WCA) 1981 (as amended). This protection means that bats and their places of rest and shelter are a material consideration in the planning process.
- 2.4.3 Taken together, unless under licence, these make it an offence to:
- Deliberately or intentionally capture or take a bat;
 - Deliberately or intentionally kill or injure a bat;
 - To be in possession or control of any live or dead bat or any part of, or anything derived from a bat;
 - Damage or destroy a breeding site or resting place of a bat;
 - Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
 - Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
 - Deliberately disturb any bat, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.

2.4.4 A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to use the same roost sites at different times of year, current legal opinion is that a bat roost is protected whether bats are present at the time.

2.4.5 In addition to the above, certain species of bat are listed on Annex II of the Habitat Regulations 2018. Annex II species include greater and lesser horseshoe bats *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*, barbastelle *Barbastellus barbastella* and Bechstein's bat *Myotis bechsteinii*. Where present, consideration to the requirement of a Special Areas of Conservation (SAC) should be given.

2.5 Objectives of the Survey

2.5.1 The objectives of the surveys were to:

- Determine the presence of bats within the building to be affected by the proposal,
- Identify the number and species of bats, should they be present,
- Identify the entrance/exit points used by bats, should they be present,
- Evaluate the potential for bats to be affected by proposals,
- Identify any legal or policy constraints related to bats that may affect the development,
- Suggest mitigation/compensation measures that may be required.

2.6 Survey Constraints

2.6.1 There were no constraints to the surveys.

3 SURVEY METHODOLOGY

3.1 Emergence/Re-entry Surveys

- 3.1.1 Out of the nine buildings assessed for bat roosting potential a total of six were determined to be suitable for roosting bats. B2 was deemed “**Low**”; B3 was deemed “**Moderate**”; B5 was deemed “**Low**”; B6 was deemed “**Moderate**”; B7 was “**Confirmed**” due to a previous a Natural England European protected species mitigation (EPSM) licence (2016-19427-EPS-MIT-1) which is now out of date and B8 was deemed “**Moderate**”. Therefore, the above buildings were subject to a number of dusk surveys according to the level of suitability.
- 3.1.2 During the second survey of B3, a bat was recorded emerging from the building and as the building had been identified as a ‘**Confirmed**’ roost, a third survey of B3 was carried out in September.
- 3.1.3 Completed on the following dates 19th August 2019, 22th August 2019, 5th September 2019, 9th September 2019 and 24th September 2019, the surveys were completed in accordance with current best practice guidance (Collins, 2016). To adequately observe all aspects of the buildings, two to three surveyors were deployed per building during each survey. The location of the surveyors is depicted in Figure 1.
- 3.1.4 All surveys were completed in favourable weather conditions with night-time temperatures of $\geq 10^{\circ}\text{C}$ and little or no rain.
- 3.1.5 To account for the varying times in which differing bat species emerge, evening emergence surveys commenced 15 minutes before sunset and continued for 1 hour and 15 minutes after sunset, or until light levels deemed the survey no longer valid.
- 3.1.6 A summary of the weather conditions, surveyors and survey times recorded during the surveys is provided in Table 1.

Table 1 – Survey Times and Conditions

Date	Buildings Surveyed	Emergence or Re-entry	Sunset time	Start Time	End Time	Surveyors	Start Weather Conditions
19.08.19	B3, B7 and B8	Emergence	20:13	19:58	21:28	James Johnston Tanya Rowlinson Gemma Abela Jacob Tassaker Tabitha Plummer Mike Marriott Steve Songhurst Vickie Gorst	Fine, Dry, Light Breeze. 15.4c
22.08.19	B2, B5 and B6	Emergence	20:07	19:52	21:22	Guy Newman James Johnston Matthew Rohner Martin Rann Gemma Abela Jacob Tassaker Tabitha Plummer	Fine, Dry, Still. 19.2c.
05.09.19	B3 and B8	Emergence	19:36	19:21	20:51	Guy Newman Tanya Rowlinson Gemma Abela Peter Scrimshaw Steve Songhurst	Cloudy, Dry, Still. 14.7c
09.09.19	B6	Emergence	19:27	19:12	20:42	Joseph Dyson Gemma Abela Steve Songhurst	Completely Cloudy, Dry, Still, 14.8c
24.09.19	B3	Emergence	18:54	18:39	20:09	Matthew Rohner Dominic Wallace Steve Songhurst	Fine, Dry, Gentle Breeze, 14.3c.

3.1.7 To aid audible detection, surveyors were equipped with Elekon Batlogger M bat detectors. These detectors convert the inaudible echolocation of bats into a frequency audible to the human ear. All calls were digitally recorded, and the sonograms later analysed through the application of the computer programme Elekon BatExplorer.

3.1.8 As the surveyors experienced no difficulties observing the building, in the professional judgment of the appointed ecologist, the application of a pre-dawn re-entry survey was considered unnecessary in this instance.

3.2 Constraints

3.2.1 According to good practice guidance (Collins, 2016), at least two of the three surveys for buildings with 'Confirmed' roosts should be carried out between May and August. Only one of the three surveys conducted of B3 was carried out in August however, as bats were recorded emerging from this building during the September survey, this is not considered to be a constraint upon survey effort.

4 SURVEY RESULTS

4.1 Emergence/Re-entry Surveys

19th August 2019

B3

- 4.1.1 No bats emerged from the building during the survey.
- 4.1.2 The first bat recorded within the site was a common pipistrelle *Pipistrellus pipistrellus* which passed near to B3 at 20:25hrs, 18 minutes after sunset. At 21:01hrs, 54 minutes after sunset, a myotis species of bat *Myotis* sp. was heard foraging around B3.
- 4.1.3 Soprano pipistrelle *P. pygmaeus* and noctule *Nyctalus noctule* were the only other bats recorded commuting or foraging within and around B3 until completion of the survey.
- 4.1.4 Overall, bat activity within the site around B3 was considered to be 'Moderate'.

B7

- 4.1.5 The first bat recorded within the site was a common pipistrelle which was seen commuting around B7 at 20:21hrs, 14 minutes after sunset. 3 common pipistrelles were seen emerging from the buildings tiled roof on the northern aspect from two separate points at 20:31hrs and 20:34hrs approximately 24 – 27 minutes after sunset.
- 4.1.6 Common pipistrelles and soprano pipistrelle were recorded commuting and foraging around B7 continued for the duration of the survey
- 4.1.7 Overall, bat activity within the site around B7 was considered to be 'High'.

B8

- 4.1.8 No bats emerged from the building during the survey.
- 4.1.9 The first bat recorded within the site was a common pipistrelle which passed near to B8 at 20:33hrs, 26 minutes after sunset. At 20:49hrs, 42 minutes after sunset a myotis species of bat was heard commuting around B8.
- 4.1.10 Soprano pipistrelle and noctule were the only other bats recorded commuting or foraging within and around B8 until completion of the survey.
- 4.1.11 Overall, bat activity within the site around B3 was considered to be 'Low'.

22nd August 2019

B2

- 4.1.12 No bats emerged from the building during the survey.

- 4.1.13 The first bat recorded within the site was a common pipistrelle which passed near to B2 at 20:17hrs, 10 minutes after sunset. At 20:43hrs, some 36 minutes after sunset a myotis species of bat was heard foraging around B2.
- 4.1.14 Soprano pipistrelle and noctule were the only other bats recorded commuting or foraging within and around B2 until completion of the survey.
- 4.1.15 Overall, bat activity within the site around B2 was considered to be 'Moderate'.

B5/B6

- 4.1.16 No bats emerged from the building during the survey.
- 4.1.17 The first bat recorded within the site was a soprano pipistrelle which was seen foraging in and out of B6 at 20:07hrs, at sunset a total of 4+ bats were seen foraging inside and out of B5 and B6 for the duration of the survey. At 20:46hrs, some 39 minutes after sunset a myotis bat was heard foraging around B6.
- 4.1.18 Common pipistrelle, long-eared bat *Plecotus sp.* and noctule were the only other bats recorded commuting or foraging within and around B5/B6 until completion of the survey.
- 4.1.19 Overall, bat activity within the site around B5/B6 was considered to be 'High'.

5th September 2019

B3

- 4.1.20 The first bat recorded within the site was a common pipistrelle which emerged from a doorway on the eastern side of B3 at 19:55hrs, 19 minutes after sunset. At 20:22hrs, some 48 minutes after sunset a myotis species of bat was heard foraging around B6 and was recorded foraging around B3 for duration of the survey.
- 4.1.21 Soprano pipistrelle was the only other bat species recorded commuting or foraging within and around B3 until completion of the survey.
- 4.1.22 Overall, bat activity within the site around B3 was considered to be 'Low'.

B8

- 4.1.23 No bats emerged from the building during the survey.
- 4.1.24 The first bat recorded within the site was a common pipistrelle which passed near to B8 at 20:06hrs, 30 minutes after sunset. A long-eared bat was recorded at 20:40hrs 64 minutes after sunset.

4.1.25 Soprano pipistrelle and noctule were the only other bat species recorded commuting or foraging within and around B8 until completion of the survey.

4.1.26 Overall, bat activity within the site around B8 was considered to be 'Low'

9th September 2019

B6

4.1.27 No bats emerged from the building during the survey.

4.1.28 The first bat recorded was a common pipistrelle which was observed foraging within the site at 19:41hrs, 14 minutes after sunset. A myotis bat was recorded at 19:49hrs, 22 minutes after sunset and a single long eared bat was recorded at 20:20hrs 53 minutes after sunset.

4.1.29 soprano pipistrelle and noctule were the only other species of bat recorded commuting or foraging within and around the site until completion of the survey.

4.1.30 Overall, bat activity within the site was considered to be 'Low'.

24th September 2019

B3

4.1.31 No bats emerged from the building during the survey.

4.1.32 The first bat recorded was a noctule which was observed commuting within the site at 19:23hrs, 29 minutes after sunset.

4.1.33 Common pipistrelle and soprano pipistrelle were the only other species recorded commuting or foraging within and around the site until completion of the survey.

4.1.34 Overall, bat activity within the site was considered to be 'Low'.

4.2 Summary of Results

4.2.1 Table 2 shows a summary of the survey results.

Table 2. Survey Results Summary

Date	Bats emerging or returning from/to the building	Bat species recorded commuting / foraging within the site
19.08.19	3 x common pipistrelle emerged from B7 roof.	Common pipistrelle Soprano pipistrelle Long-eared bat Noctule Myotis
22.08.19	No Emergence.	Common pipistrelle Soprano pipistrelle Long-eared bat Noctule
05.09.19	1 x common pipistrelle emerged from the eastern entrance of B3.	Common pipistrelle Soprano pipistrelle Myotis
09.09.19	No Emergence	Common pipistrelle Soprano pipistrelle Long-eared bat Noctule Myotis
24.09.19	No Emergence	Common pipistrelle Soprano pipistrelle Noctule

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1.1 The initial building survey identified potential roosting features (PRF) for bats in many of the farm buildings in the form of gaps beneath timber weatherboarding and timber frames of the barns/stables and damaged and/or missing roof tiles.
- 5.1.2 Subject to further surveys to determine the presence/likely absence of roosting bats, 3 common pipistrelle bats were recorded exiting the building B7 during the survey carried out 19th August 2019.
- 5.1.3 The emergence surveys were completed within the core maternity period for bats of May – August, and as reasonable effort to determine the roost was applied, it is concluded that the presence of 3 common pipistrelle is indicative of a transitional roost occupied by individual/low numbers of male or non-breeding female bat(s) and not a maternity roost for these species. The results of the surveys indicate that the status of the roost is similar to its status in previous surveys of the building carried out in 2013 (Arbtec, 2013) 2015 and 2018 (GES, 2015 and 2018)
- 5.1.4 In addition, a single common pipistrelle was recorded exiting from a doorway on the eastern face of B3 during the survey carried out 5th September. The results of the surveys also indicate that the presence of a single common pipistrelle is indicative of a transitional roost occupied by individual/low numbers of male or non-breeding female bat(s) and not a maternity roost for these species.
- 5.1.5 Current legislation protects bats and their roosts and from reviewing the proposed plans it is apparent that the proposed works will result in a destruction of the roost.
- 5.1.6 To ensure the works are conducted in accordance with the varying legislation and planning policies which serve to protect bats and their roosts, an appropriate licence would need to be sought and approved from Natural England prior to the start of any works to areas deemed sensitive to roosting bats.
- 5.1.7 The licence is a legal document which allows an individual to commit what would otherwise be an unlawful act, which in this instance would be the destruction of the known roost.
- 5.1.8 Although the content of the licence will detail the timeframes, methodology and mitigation measures required, a brief overview of such matters is provided below.
- In accordance with the Bat Mitigation Guidelines (Mitchell-Jones, 2004) works to sensitive areas of the buildings (roof coverings, ceilings, fascia boards, soffit boxes,

weatherboarding, etc.) would be best conducted during the period 1st September – 31st April in any given year.

- Working in this period would reduce/omit the potential for bats to be present. However, to avoid disturbing bats that may be hibernating, works to sensitive areas for bats, where practical, should also avoid the core hibernation period for bats of 1st December – 1st March.
- Prior to the start of any works, the contractors working on the project would be subject to a 'Toolbox Talk' by a suitably qualified ecologist. To be given by the Ecological Clerk of Works (ECoW), the 'Toolbox Talk' will outline the current legislation related to bats and their roosts and also the appropriate manner in which to proceed with the work.
- To ensure continuity of roost sites for bats within the site, two Schwegler 2FN bat boxes (or similar) would be installed on a suitable tree within the land ownership prior to the start of works.
- Upon installation of the bat boxes, works that are likely to impact areas deemed sensitive to the presence of roosting bats would commence.
- The removal of materials deemed sensitive to roosting bats (roof coverings, ceilings, fascia boards, soffit boxes, weatherboarding, etc.) would be undertaken upon approval of the licence, at the appropriate time of year and under to supervision of the licenced ECoW or an ECoW accredited to the licence.
- Any bats found would be captured by the ECoW (using gloved hands) and the bat placed carefully within the Schwegler box.
- Replacement roosts for bats will be created through the installation of two integrated bat roosting features into any proposed buildings on-site.
- To avoid entanglement, the use of modern breathable membranes would be avoided within the roof covering. In accordance with the bat conservation trust (BCT) and Natural England guidelines, all roof underlining's are to be achieved through the use of traditional Type 1F bitumen felt.

5.1.9 Bat activity beyond the emerging bat was recorded within the site and all external lighting shall be sympathetic to the requirement of bats and will ensure no direct illumination of the integrated / tree mounted bat boxes.

5.1.10 Where possible; any excessive lighting of the areas, which are used by foraging and commuting bats, will be avoided. This should be achieved through the use of low-level bollard, directional and/or passive infrared sensor (PIR) activated lighting.

- 5.1.11 It should be noted that the licence application can only be submitted once full planning permission has been approved and all planning conditions relating to wildlife that can be discharged, have been discharged.
- 5.1.12 Although approval of the above strategy will be given by Natural England prior to the start of works, it is suggested that; so long as the above recommendations are adhered to then the proposed development will be conducted in accordance with the requirements of current legislation and planning policies which serve to protect bats and their roosts.

6 SUMMARY

- 6.1 In response to the proposed development at Preston Farm, Shoreham, Kent, the buildings were subject to a series of evening bat emergence surveys.
- 6.2 The emergence surveys served to determine the species of bats, the numbers of bats and the status of the roost(s), if present.
- 6.3 The survey identified the presence of a common pipistrelle bat roost(s) within buildings B3 and B7 with a peak count of one and three bats respectively.
- 6.4 The surveys were carried out within the core maternity period for bats and consequently the evidence and number of common pipistrelle bats recorded during survey is indicative of a non-breeding transitional roosts for this species.
- 6.5 The proposed works will result in an impact to the common pipistrelle roost(s) and no works to building should commence until an appropriate licence has been submitted and approved by Natural England.
- 6.6 The content of the licence will provide detailed recommendations in regard to timings, methods of best practice and mitigation measures required to ensure that the favourable conservation status of bats is maintained on the site post development. For clarity an outline of the proposed mitigation strategy has been provided within this report.
- 6.7 So long as the mitigation strategy set out within the licence is implemented in full, then the FCS of bats will be maintained, and the proposed development will remain compliant with current legislation and planning policies which serve to protect bats.

7 REFERENCES

Arbtec. (2013). *Bat Emergence Survey: Barn at Dairy House*. Unpublished.

Collins, J., (ed.) 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed)*. Bat Conservation Trust, London.

Greenspace Ecological Solutions (2015). *Barn at Dairy House, Shoreham: Update Bat Emergence Survey*. Unpublished.

Greenspace Ecological Solutions (2018). *Barn at Dairy House, Preston Farm: Update Bat Emergence*. Unpublished.

Greenspace Ecological Solutions (2019). *Preston Farm, Kent: Preliminary Ecological Appraisal*. Unpublished.

Mitchell-Jones, A. J., (2004). *Bat Mitigation Guidelines*. English Nature.

National Planning Policy Framework (NPPF) 2019

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

Natural Environment and Rural Communities (NERC) Act 2006.

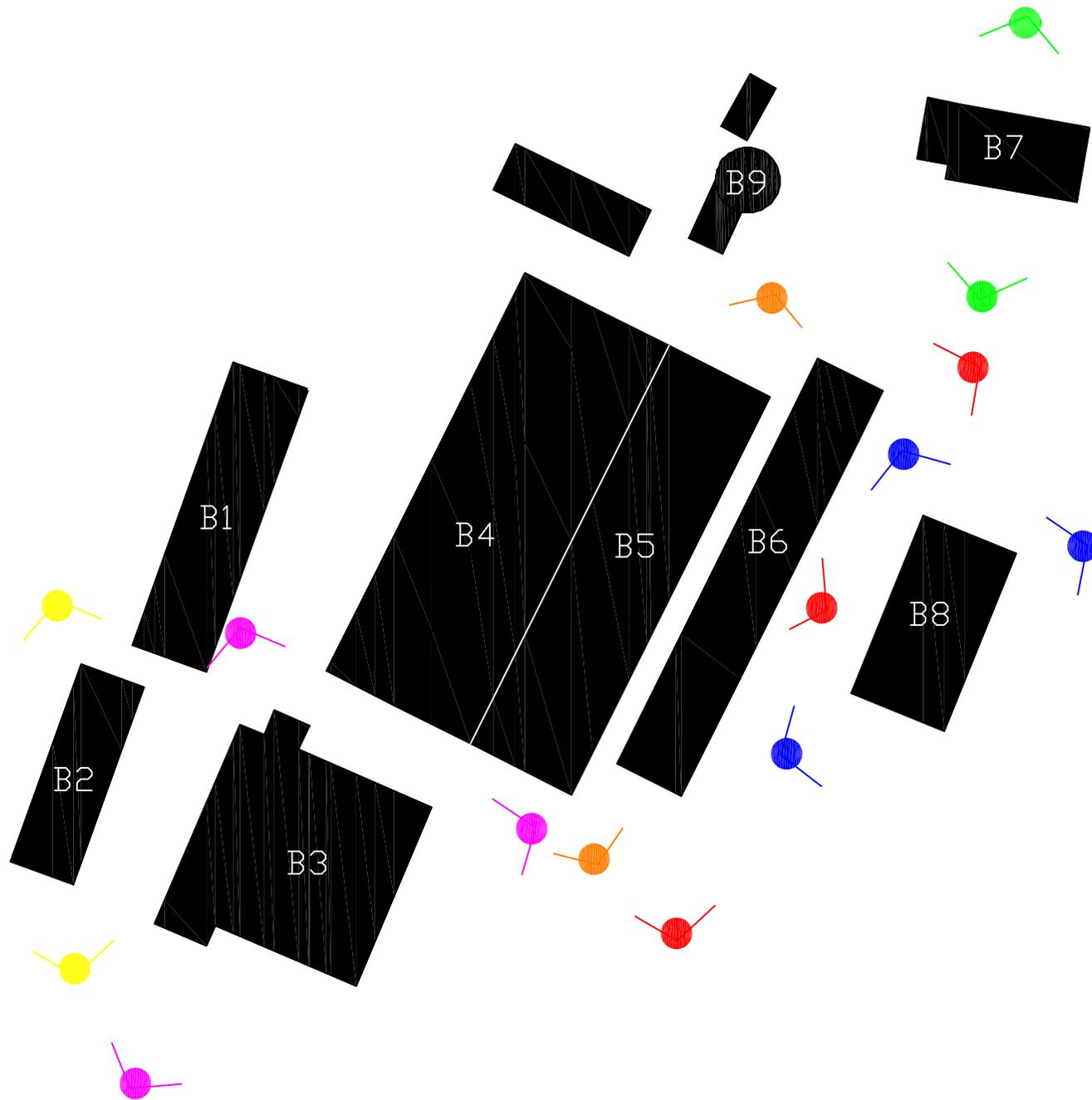
<http://www.legislation.gov.uk/ukpga/2006/16/contents>

The Conservation of Habitats and Species Regulations (Habitats Regulations) 2018.

<http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

Wildlife and Countryside Act (as amended) 1981. <http://jncc.defra.gov.uk/page-1377>

Figures



Legend

- B2 Surveyor Locations
- B3 Surveyor Locations
- B5 Surveyor Locations
- B6 Surveyor Locations
- B7 Surveyor Locations
- B8 Surveyor Locations



Job Reference : J20717_P2

Project Title: Preston Farm,
Shoreham

Drawing Title
Figure 1: Bat Surveyor Locations

Date : 01-10-19 Checked : JJ

Drawn : JD Approved : N/A

Status : Final Scale : NTS