



The White Hart, South Mimms

Bat Survey Report

Prepared by
CSA Environmental

on behalf of
Griggs (South Mimms) Limited

Report Ref: CSA/6115/02

October 2023

This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

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EXECUTIVE SUMMARY

Residential development is proposed at The White Hart, South Mimms for which detailed planning permission will be sought. The proposals include the conversion and extension of the former public house into six apartments, conversion of outbuilding into a two-bedroom apartment and construction of a detached infill dwelling, along with associated landscaping, bin store and parking.

CSA Environmental was instructed by Griggs (South Mimms) Limited to undertake an inspection of the on-site buildings comprising a former public house building (B1) and associated outbuilding (B2) in order to assess their potential to support roosting bats. This inspection assessed both B1 and B2 as having 'Moderate' potential to support roosting bats. The full results of this survey can be found in the Preliminary Ecological Assessment (PEA) (CSA/6115/01).

In line with current best practice survey guidelines for buildings with 'Moderate' potential to support roosting bats, CSA Environmental carried out two dusk emergence surveys of B1 and B2 in May and June 2023 to confirm presence/likely absence of bat roosts within these buildings. During these surveys, an emergence was confirmed from building B1 and therefore a third dusk emergence survey was undertaken in June 2023 to characterise the type of roost present.

Emergence surveys undertaken in 2023 confirmed **the presence of a small day (non-breeding) common pipistrelle bat roost in association with B1**. No evidence of roosting bats was recorded in association with B2, and no maternity colonies of any bat species were identified. Bat activity during the surveys was limited, with only low numbers of common species recorded.

The proposed works would result in the loss of a single common pipistrelle roost. As such, a mitigation strategy is proposed herein, which would be implemented under the auspices of a European Protected Species licence, to be sought from Natural England once the necessary permissions are obtained.

Nesting birds have been identified in association with B1 and therefore precautions with regard to nesting birds have also been provided.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of Griggs (South Mimms) Limited. It sets out the findings of bat survey work undertaken at The White Hart, South Mimms (hereafter referred to as 'the Site'). Residential development is proposed at the Site for which planning permission will be sought.
- 1.2 The Site is located around central grid reference TL 22191 01260 to the north of South Mimms. The Site comprises an area of developed land and buildings with areas of modified and other neutral grassland to the north and south of the Site. Vegetation comprises a hedgerow to the south-west of the Site, mixed scrub to the south of the Site, introduced shrub to the east of the Site and a tree amongst the developed land. Development proposals at the Site include the conversion and extension of the former public house into six apartments, conversion of outbuilding into a two-bedroom apartment and construction of a detached infill dwelling, along with associated landscaping, bin store and parking.
- 1.3 The following survey work was carried out:
- Inspection of the buildings to assess their potential to support roosting bats (May 2023)
 - Site walkover to record on-site habitats and potential for protected/notable species (May 2023)
 - Three dusk emergence surveys (May to June 2023)
- 1.4 The purpose of these surveys was to confirm the presence/likely absence of roosting bats in association with the buildings on-site, following the previously undertaken Preliminary Ecological Assessment (CSA/6115/01) which should be read in conjunction with this report.
- 1.5 The content of this report has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017 & 2018), and to the *Biodiversity: Code of practice for planning and development* (BS 42020:2013) published by the British Standards Institution (2013). Survey methods, design, data analysis and interpretation have been undertaken with due consideration of the Bat Conservation Trust (BCT) guidelines 3rd Edition (Collins, 2016).

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

2.1 All British bat species are legally protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations make it an offence to:

- Deliberately capture, injure, or kill a bat
- Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young, or which significantly affects the local distribution or abundance of the species
- Damage or destroy a breeding site or resting place used by bats

2.2 All bats and their roosts in the UK were previously fully protected under the Wildlife & Countryside Act 1981 (as amended). Amendments to the Act have removed most provisions as they relate to bats, however it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection

2.3 It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Regulations, the offence of damaging or destroying a breeding site or resting place is subject to 'strict liability', i.e. an offence is committed irrespective of whether the causal act was deliberate or otherwise.

Licensing

2.4 Where development is proposed that would result in an offence under the Regulations, a European Protected Species (EPS) statutory derogation licence (often termed 'EPS Mitigation Licence') will need to be secured from Natural England to permit an act that would otherwise be unlawful. Such a licence can only be granted following receipt of planning permission with all relevant conditions discharged, and where it has been demonstrated that specific statutory derogation tests have been met.

3.0 METHODS

Preliminary Roost Assessment (PRA)

Structures

- 3.1 A detailed external and internal inspection of all buildings on-site was undertaken on 04 May 2023, using high-powered torches, binoculars, and ladder as appropriate. The survey was carried out by Alexandra Cole MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2016-25563-CLS-CLS) and Rosie Billington.
- 3.2 External inspection focused on identifying potential bat access points to the interior of the structure and any external features that could potentially be used by crevice-dwelling species. Particular attention was given to window sills, window panes, weatherboarding, and pitch/ridge tiles; as evidence is typically found in these locations.
- 3.3 The internal inspection involved a systematic search for bats or any evidence of their activity, in particular droppings and/or feeding remains within the buildings and loft spaces of the buildings.
- 3.4 A description of the structure was made, including construction, condition (in respect of roosting, rather than building or structural integrity) and age (where known).
- 3.5 The aim of this inspection is to record direct (i.e. actual roosting bats) or indirect evidence of roosting bats (e.g. droppings), as well as the nature and number of features with 'potential' to support roosting bats. This includes consideration of structure to support bats whilst in hibernation.

Limitations

- 3.6 Internal access within the roof voids of B1 was limited due to H&S restrictions and limited accessibility. However, the majority of the voids could be viewed from the access points and high-powered torches were used to assist in viewing the voids and potential roosting features, thus reducing the limitation.

Assessing 'Potential' of Buildings to Support Roosting Bats

- 3.7 All structures were assigned to one of four categories in respect of their 'potential' to support roosting bats, or the confirmation of any bat roosts identified. 'Potential' in this context is taken to be the broad suitability of features to support roosting bats, based upon the nature, condition or structure of such features, in the absence of confirmed evidence of roosting.
- 3.8 Assigning the following categories is intended to determine the effort of any further targeted survey or inspections which are necessary to prove

presence or likely absence of roosting bats, rather than to assign importance to such features.

3.9 The following categories are assigned to structures herein, Either:

- **Confirmed roost** – where one or more bat roosts are identified during PRA inspections, either through direct sightings of bats, and/or indirect evidence such as bat droppings. Or;
- **High** – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- **Moderate** – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, assessments at this stage are made irrespective of species conservation status).
- **Low** – A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
- **Negligible** – Negligible habitat features on site likely to be used by roosting bats.

3.10 The potential of a tree or structure to support roosting bats is often influenced by its age and construction, thermal stability, lighting and levels of human activity. Furthermore, the proximity to foraging habitat - particularly woodland, parkland and wetland- as well as the presence of navigational routes (e.g. hedgerows, treelines and watercourses) influence both the potential for bats to roost, as well as the species which may roost. Professional judgement is therefore applied, based upon known factors which effect the potential of features to support roosting bats, insofar as determining the need or scope of further surveys or inspections.

Emergence Surveys

3.11 Two dusk emergence surveys were undertaken on 11 May and 06 June 2023 to confirm the presence/likely absence of roosting bats in association with B1 and B2. An additional survey of B1 was undertaken on 27 June 2023 to determine the character of identified roosts, namely species present, number of roost bats and roost type (i.e. day, night feeding, maternity and transitory).

3.12 The dusk emergence surveys commenced 15 minutes prior to British Summer Time (BST) sunset and finished approximately 1.5 hours after BST sunset. The surveys were undertaken with due consideration for the BCT

good practice guidelines. The surveys were carried out by Alexandra Cole MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2016-25563-CLS-CLS), Laura Farrar ACIEEM (Bat Class Survey Licence WML-CL17, Registration Number 2020-44517-CLS-CLS), Matthew Dale, Rosie Billington and Owen de Graaf all in suitable weather conditions (see Appendix B).

- 3.13 During the survey, the surveyors watched for any bats leaving or entering parts of the building or using key flight lines, equipped with hand-held Batlogger M detectors to assist in determining species of bat and any associated behaviour. An infrared video camera rig (Canon XF100) was also used to assist with the surveys. A note was made of all bat passes, along with the time, species and any information regarding behaviour, including direction of flight, and activity e.g. foraging/commuting.
- 3.14 A total of four surveyor locations were used for B1 and two surveyor locations for B2. Surveyors were positioned so as to provide a full view of the features identified during the PRA (see Bat Survey Plan, Appendix A).
- 3.15 Following the survey all bat calls were analysed using BatExplorer to enable species identification, where possible of the data.

Limitations

- 3.16 There were no limitations to the dusk emergence surveys which were conducted in suitable weather conditions at an appropriate time of year.

Assessment

- 3.17 Any bat roosts identified during the surveys have been evaluated in line with Wray *et al.* (2010) and Mitchell-Jones (2004). These documents provide guidance on assessing the conservation value of bat roosts according to type and species and conservation significance of roosts, respectively. This guidance is summarised in Tables 1-3 below.

Table 1. Categorising Bats by Distribution and Rarity (adapted from Wray *et al.*, 2010)

Rarity within range	Species
Rarest (under 10,000)	Greater mouse-eared Greater horseshoe Grey long-eared Bechstein's Barbastelle Alcathoe
Rarer (10,000 – 100,000)	Lesser horseshoe Whiskered/Brandt's Nathusius' pipistrelle Serotine Leisler's
Common (over 100,000)	Common pipistrelle Soprano pipistrelle Brown long-eared

Rarity within range	Species
	Noctule Natterer's Daubenton's

Table 2. Valuation of Roosts (Wray *et al.*, 2010)

Geographic frame of reference	Roost Types
International	SAC sites
National	Sites meeting SSSI guidelines Maternity sites of rarest species
Regional	Large swarming sites Mating sites for rarer/rarest species Maternity sites of rarer species Significant hibernation sites for rarer/rarest species ,or all species assemblages
County	Feeding perches of rarer/rarest species Small numbers of rarer/rarest species (not maternity sites) Hibernation sites for small numbers of common/rarer species Maternity sites of common species
Local (Parish or District)	Feeding perches Individual bats of common species Small numbers of common species (not maternity sites) Mating site of common species

Table 3. Conservation significance of roosts (adapted from Mitchell-Jones, 2004)

<p>Low</p> <p>↓</p> <p>Conservation significance</p> <p>↓</p> <p>High</p>	Roost Status
	Feeding perches of common/rarer species
	Individual bats of common species
	Small number of common species. Not a maternity site
	Feeding perches of Annex II species
	Small number of rarer species. Not a maternity site
	Hibernation sites for small numbers of common/rarer species
	Maternity sites of rarer species
	Significant hibernation sites for rarer/rarest species or all species assemblages
	Sites meeting SSSI guidelines
	Maternity site of rarest species

4.0 RESULTS

Preliminary Roost Assessment

Structures

- 4.1 All on-site structures were assessed for their potential to support roosting bats. Both buildings B1 and B2 were identified as having 'Moderate' potential to support roosting bats. For full results of the PRA please see the Preliminary Ecological Assessment (CSA/6115/01).

Emergence Surveys

- 4.2 A detailed account of the bat activity recorded during the surveys is presented in the Bat Survey Plan (Appendix A) and Bat Survey Results Tables (Appendix B). Surveyor locations were Surveyor A (B1) – north-west of the Site, adjacent to Blanche Lane; Surveyor B (B1) and C (B2) – north-east of the Site, adjacent to St Albans Road; Surveyor D (B2) and E (B1) – south of B1 in the former public house garden (see Bat Survey Plan Appendix A).

Dusk Emergence Survey (11 May 2023)

- 4.3 No bats of any species were seen emerging from the buildings during the survey.
- 4.4 A low level of common pipistrelle *Pipistrellus pipistrellus* activity was identified throughout the survey with the majority of bat activity heard, but not seen. The first bat contact was a common pipistrelle recorded at 20:39, one minute before sunset. No other species of bat were heard during the survey. Commuting and foraging activity was identified in association with the surrounding habitat, including St Giles Church to the south of the Site. Bat activity observed on-site was restricted to bats passing over the Site.
- 4.5 In addition to the above bat activity, a jackdaw *Corvus monedula* was observed nesting within the chimney pot on the southern aspect of B1, by the surveyor in Location E.

Dusk Emergence Survey (06 June 2023)

- 4.6 **A single common pipistrelle *Pipistrellus pipistrellus* bat was seen emerging** from the southern aspect of the roof of B1 at 21:33, 20 minutes after sunset, by the surveyor at Location E. Due to the complexity of the roof structure, the exact location of the emergence was not identified, but this is likely to have been from under a roof tile.
- 4.7 No foraging behaviour was identified during the survey. Low levels of activity were detected, attributable to common pipistrelle bats, with a single contact from a brown long-eared bat *Plecotus auritus*. Activity

was restricted to flight above the Site and commuting to/from the adjacent St Giles Church.

Dusk Emergence Survey (27 June 2023)

- 4.8 **A single common pipistrelle *Pipistrellus pipistrellus* bat was seen emerging** from the southern aspect of the roof of B1 at 21:32, nine minutes after sunset, by the surveyor at Location E. This was the same emergence location as the previous survey on 06 June 2023.
- 4.9 A total of five common pipistrelle bat contacts were recorded during the duration of the survey, by the surveyor at Location E. Two of these contacts were associated with the above emergence and the further contacts were of bats foraging and commuting above the Site. Two further contacts of commuting bats were observed by the surveyor at Location A. A non-echolocating bat was observed flying along the eastern aspect of B1 by the surveyor in Location B. This bat was not seen emerging from either building.

5.0 DISCUSSION AND RECOMMENDATIONS

Assessment

- 5.1 The survey work undertaken in 2023 has confirmed the presence of a single common pipistrelle day roost, supporting an individual bat within B1. A single common pipistrelle bat was observed emerging from the southern aspect of the roof of B1 during two of the emergence surveys. No bat roosts were identified in association with B2.
- 5.2 The roost associated with B1 is characterised as a day or transitional roost (i.e., non-breeding roost). The roost is occupied by an individual common pipistrelle bat, a common and widespread species and thus of low conservation significance (Mitchel-Jones, 2004) and of Local importance (Wray *et al.*, 2010). As such, the bat interest at the Site is of ecological importance, significant at the **Local** level.
- 5.3 Roosting bats are confirmed as likely-absent from B2. Therefore, no further precautions are required in this regard. In the unlikely event that bats are encountered during works, works should cease immediately, and a suitably qualified/licenced ecologist should be contacted.
- 5.4 Works are proposed for the change of use of B1 (former public house) into six apartments; B2 (outbuilding) into one, two-bedroom apartment; and for the construction of a detached infill dwelling.
- 5.5 In the absence of any mitigation, the proposed development works would result in the illegal destruction of one common pipistrelle (non-maternity) bat roost within B1. As such a European Protected Species (EPS) licence from Natural England is required to enable the works to proceed.
- 5.6 A jackdaw was identified nesting within a chimney pot on B1, this is in addition to the starling *Sturnus vulgaris* nest identified within the eaves above a window on the western aspect of B1 during the PRA. Works impacting these areas should therefore be undertaken outside of the nesting bird season (March to August, inclusive). If this is not possible then the building will need to be checked for nesting birds prior to works.

Mitigation

- 5.7 The following measures will be incorporated into the method statement of the EPS licence application, in order to mitigate the impact on bats as a result of the proposed works and provide adequate replacement roosting opportunities:
- **One Schwegler 2F bat box (or similar and approved) will be installed on a retained tree prior to commencement of works** (to provide a safe

location for any bats found during works to be relocated to by the licenced ecologist).

- Any features within the building with potential to support bats (e.g. bargeboard, roof tiles, ridge tiles, soffits, gutter fascia boards) will be searched and dismantled ('soft-stripped') under supervision and direction from a licensed bat worker. These works would ideally be undertaken when bats are most active (April-September i.e. prior to bat hibernation), but outside of the summer period (May to August). However, it is anticipated that Natural England will not impose a constraint on timings of works, other than outside of inclement weather and after minimum 8°C temperature overnight.
- An endoscope and other such equipment will be used to investigate crevices (e.g. under tiles) where appropriate and possible.
- In the event that any bats are found during supervised works the licensed bat worker will catch them by hand, or a hand net, and place them in a breathable holding bag for immediate relocation to one of the bat boxes on nearby retained trees. Care will be taken to move the bat quickly and with minimal handling. Injured bats will be immediately taken into care (as directed by the Bat Worker's Manual, 2004). Details of a local bat carer/hospital will be carried by the licensed bat worker throughout the works.
- Once potential roost areas have been stripped under supervision, further work will then proceed swiftly without the supervision of an ecologist. In the unlikely event that a bat is found during any of the building works when the named ecologist is not present, contractors will be instructed to stop work immediately and contact the named ecologist for advice. Other contractors are explicitly forbidden from handling bats.

5.8 To compensate for the loss of roosting opportunities within B1, in addition to the bat box on a retained tree detailed above, a single 'Habibat' integrated bat box (or similar and approved) will be integrated within the wall of a building on-site, at the closest location to the roost to be lost.

5.9 Any new lighting scheme for the Site will be designed to avoid illuminating any of the bat roosting boxes/integrated units that are to be installed as part of mitigation/enhancement, as well as minimising illumination of hedgerows and mature trees and suitable habitat within the grounds of the adjacent St Giles Church, which are likely to be used by bats as a commuting corridor/foraging area or roost.

Enhancement

5.10 As an enhancement, provision of new roosting opportunities will be incorporated within the development. In addition to the bat box required for mitigation as set out above, **a minimum of two further bat boxes will be integrated within the new buildings.** These will be of a

purpose-built, durable and long-lasting variety such as those available from Habitat.

Monitoring

- 5.11 It is not anticipated that there will be any requirement from Natural England to undertake monitoring of mitigation provided for loss of roosts of low conservation significance. However, a final site visit will be undertaken by the consultant ecologist once installation of bat mitigation measures has been completed to ensure that installation has been undertaken in line with the requirements of the EPS licence.

Nesting Birds

- 5.12 All wild birds are protected from killing and injury, and their nests and eggs are protected from damage and destruction, under the Wildlife and Countryside Act 1981 (as amended). Therefore, any vegetation clearance or works to B1 required to facilitate the development will avoid the period between March and August (inclusive) when nesting birds are most likely to be present. If this is not possible, the building and vegetation will need to be checked for nesting birds by a suitably qualified ecologist prior to clearance.
- 5.13 A jackdaw and a starting nest have been identified within B1. Works to B1 should therefore be undertaken outside of the nesting bird season (March to August, inclusive). If this is not possible then the building will need to be checked for nesting birds prior to clearance.

6.0 CONCLUSIONS

- 6.1 The bat survey work has confirmed the presence of a common pipistrelle day or transitional (i.e. non-breeding) roost in association with B1. In the absence of any mitigation, the proposed development works would result in the illegal destruction of this roost. As such a European Protected Species (EPS) licence from Natural England is required to enable the works to proceed.
- 6.2 A mitigation strategy has been outlined above which will be implemented as part of the Natural England EPS licence application and will include:
- One Schwegler 2F bat box (or similar and approved) will be installed on a retained tree prior to commencement of works.
 - One 'Habibat' integrated bat box (or similar and approved) will be integrated within the walls of buildings on-site, at the closest location to the demolished roost.
 - A minimum of two further bat boxes will be integrated within the new buildings.
- 6.3 Any new lighting scheme for the Site will be designed to avoid illuminating any of the bat roosting boxes/integrated units that are to be installed as part of mitigation/enhancement, as well as minimising illumination of hedgerows and mature trees, and adjacent habitat within the grounds of St Giles Church.
- 6.4 It is not anticipated that there will be any requirement from Natural England to undertake monitoring of mitigation provided for loss of roosts of low conservation significance. However, a final site visit will be undertaken by the consultant ecologist once installation of bat mitigation measures has been completed to ensure that installation has been undertaken in line with the requirements of the EPS licence.
- 6.5 Nesting birds have been identified in association with B1, therefore precautions with regard to nesting birds have also been provided.

7.0 REFERENCES

British Standards Institution, 2013. *BS 42020:2013 Biodiversity — Code of practice for planning and development*. London: BSI.

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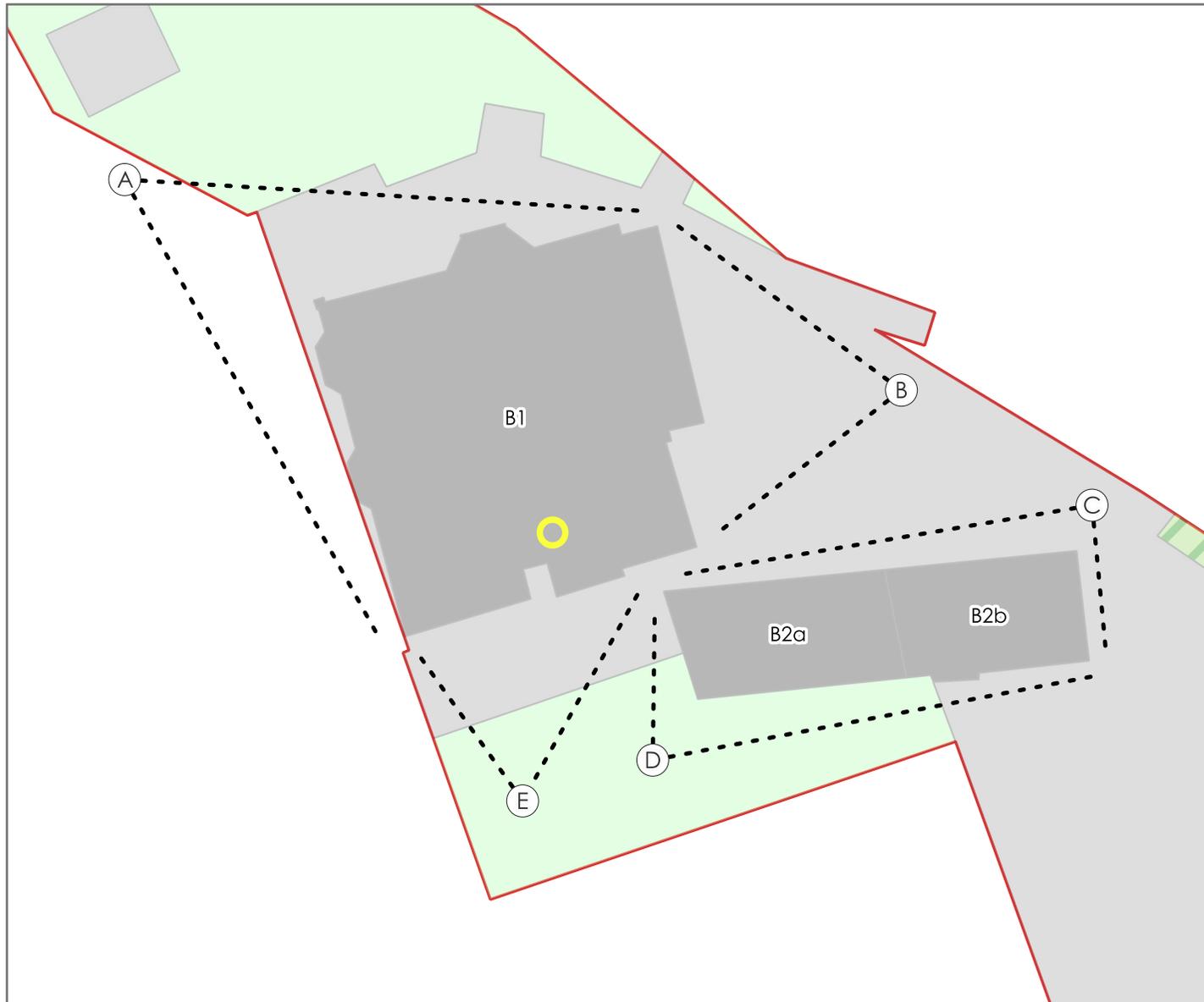
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Appendix A

Bat Survey Plan



-  Emergence Location
1 no. common pipistrelle (06/06/2023)
1 no. common pipistrelle (27/06/2023)
-  Surveyor Locations
11/05/2023: A, B, C, D, E
06/06/2023: A, B, C, D, E
27/06/2023: A, B, E
-  Surveyor Field of View



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Project	The White Hart, South Mimms	Date	October 2023	Drawing No.	CSA/6115/104
Drawing Title	Bat Survey Plan	Scale	Refer to scale	Rev	A
Client	Griggs (South Mimms) Limited	Drawn	RB	Checked	AC

Appendix B

Bat Survey Results Tables

Dusk Emergence Survey - 11 May 2023

Survey Start	20:25
Sunset	20:40
Survey End	22:10
Number of Surveyors	5
Number of Bat Emergences	0

Temp (°C)		Cloud (Oktas)		Wind (Beaufort Scale)		Precipitation
Start	End	Start	End	Start	End	
14	12	6	2	1	1	None, minor before survey

Time	Species	Notes (emergence/re-entry/number of passes/direction etc.)
20:25-20:40	Pipistrellus pipistrellus	B (20:39): HNS.
20:41-20:55	Pipistrellus pipistrellus	No activity recorded.
20:56-21:10	Pipistrellus pipistrellus	All locations: low levels of bat activity HNS & commuting from church to S.
21:11-21:25	Pipistrellus pipistrellus	A: Minor bat activity recorded, HNS.
21:26-21:40	Pipistrellus pipistrellus	A-D: low levels of bat activity HNS & commuting from church to S.
21:41-21:55	Pipistrellus pipistrellus	A (21:37): HNS.
21:56-22:10	Pipistrellus pipistrellus	C (21:55 & 22:04): HNS

Abbreviations: HNS = Heard, not seen.

Surveyor Locations: A - north-west of B1; B - north-east of B1; C - north-east of B2; D - south-west of B2; E - south of B1

Dusk Emergence Survey - 6 June 2023

Survey Start	20:58
Sunset	21:13
Survey End	22:43
Number of Surveyors	5
Number of Bat Emergences	1

Temp (°C)		Cloud (Oktas)		Wind (Beaufort Scale)		Precipitation
Start	End	Start	End	Start	End	
15	11	7	6	2	2	None

Time	Species	Notes (emergence/re-entry/number of passes/direction etc.)
20:58-21:15	-	No activity recorded.
21:16-21:30	Pipistrellus pipistrellus	B: Bat observed commuting from church to S over B1.
21:31-21:45	Pipistrellus pipistrellus	E (21:33): Emergence - one common pipistrelle emerged from the southern aspect of B1 from under a roof tile.
21:46-22:00	Pipistrellus pipistrellus	B & C: Low levels of bat activity recorded, HNS.
22:01-22:15	Pipistrellus pipistrellus	C & D: Low levels of bat activity recorded, HNS.
22:16-22:30	Pipistrellus pipistrellus	B & C: Low levels of activity recorded, HNS.
22:31-22:43	Pipistrellus pipistrellus Plecotus auritus	A & D: Low levels of bat activity recorded, HNS. One common pipistrelle seen commuting east. C (22:33): BLE, HNS.

Abbreviations: HNS = Heard, not seen. BLE = brown long-eared bat

Surveyor Locations: A - north-west of B1; B - north-east of B1; C - north-east of B2; D - south-west of B2; E - south of B1

Dusk Emergence Survey - 27 June 2023

Survey Start	21:08
Sunset	21:23
Survey End	22:53
Number of Surveyors	3
Number of Bat Emergences	1

Temp (°C)		Cloud (Oktas)		Wind (Beaufort Scale)		Precipitation
Start	End	Start	End	Start	End	
21	19	7	8	2	3	Very minor for a limited time

Time	Species	Notes (emergence/re-entry/number of passes/direction etc.)
21:08 - 21:25	-	No activity recorded.
21:26 - 21:40	Pipistrellus pipistrellus	E (21:32): Emergence - one common pipistrelle emerged from the southern aspect of B1 from under a roof tile. Limited bat activity recorded.
21:41 - 21:55	-	B (21:49): Non-echolocating bat SNH.
21:56 - 22:10	Pipistrellus pipistrellus	E: Common pipistrelle HNS.
22:11 - 22:25	-	No activity recorded.
22:26 - 22:40	-	No activity recorded.
22:41 - 22:53	Pipistrellus pipistrellus	E: Low levels of bat activity recorded, one common pipistrelle observed foraging north-west over B1.

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Surveyor Locations: A - north-west of B1; B - north-east of B1; C - north-east of B2; D - south-west of B2; E - south of B1



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