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ES Addendum - APPENDIX 7.5: Spring 2025 Bat Survey Report

Client

Bloor Homes

Project

Toton West,

Nottingham

Date

December 2025

1.0 INTRODUCTION

1.1 The following summary report has been prepared by FPCR Environment and Design Ltd. (FPCR) on behalf of Bloor Homes and provides details of results of spring bat surveys undertaken for land at Toton West (hereafter referred to as the 'Site'). The Site measures approximately 19.62 ha and is centred on ordnance survey grid reference SK491 355. These surveys comprise a nighttime walkover (flightpath and transect) survey, and a period of passive monitoring of bat activity using static detectors.

1.2 This letter should be read in conjunction with the submitted Appendix 7.1: Ecological Appraisal (FPCR, 2025) which describes the results of bat survey work undertaken in summer and autumn 2024.

Site Location and Context

1.3 The Site is located on the northern edge of Toton in Nottingham. It is bounded by a substation, solar farm and arable land to the north and the urban extent of Toton to the south. To the east is Toton Lane and the proposed Toton East development Site. To the west is Toton railway freight yard. The Site itself encompasses several arable field parcels bounded and delineated by hedgerows, treelines and public footpaths and a small coppice of trees.

1.4 The Site has previously been subject to ecological surveys, including daytime and nocturnal bat assessments undertaken by FPCR in 2024. Surveys concluded that no potential roosting features were present within the habitats present onsite. The foraging and commuting bats were dominated by pipistrelle bats.

Development Proposals

1.5 The Toton West planning application is seeking outline permission for up to 420 residential dwellings and associated open space and infrastructure.

2.0 METHODOLOGY

Nighttime Bat Walkover (Flightpath / Transects Surveys)

2.1 Nighttime bat walkover surveys had previously been undertaken across the site in summer (09/08/24) and autumn (19/09/2024). The spring survey was completed post submission on 14/05/25, thus is detailed as supplementary information herein.

2.2 In line with current BCT guidance[1], nighttime bat walkovers are undertaken in two parts. The first part is undertaken by stationary surveyors positioned on habitat features most likely to be utilised as commuting routes by bats. Once conditions become too dark to see or once commuting activity has been observed, surveyors begin the second part, which is a walked transect sampling all areas and habitats within the Site, noting any bat activity that is heard or observed along the way. Whilst this includes two elements, it is one survey designed to record information to provide further context to elements that static detectors cannot always identify such as bat behaviour or abundance of bats collectively across different habitats of the site.

2.3 The first part of the survey to observe flightpaths involved two surveyors being positioned at predetermined locations (see Figure 6). This section of the survey started at sunset and lasted for one hour. After this the walked transect was started and continued until two hours after sunset.

2.4 Surveyors were equipped with Wildlife Acoustics Inc. Echo Meter Touch® bat detectors in conjunction with Echo Meter Touch® app and Samsung Galaxy Tab Active 3®, which detects bats and aid species identification. The survey timings and conditions are provided in Table 1.

Table 1: Summary of Transect Activity Survey Weather Conditions and Survey Timings

Date	Survey type	Timing/ Weather conditions
14/05/25	Dusk Flightpath and Transect	20:55 to 23:02 (sunset 20:55). Start temperature 16°C, no rain with wind at BF 1-2 and 0% cloud cover

2.5 The data from the nighttime Bat Walkover survey was analysed using the Kaleidoscope Viewer© (Wildlife Acoustics, Inc.), by a suitably experienced ecologist (Analysts are audited internally for quality control purposes and to maintain consistent results).

Static Detector Survey

2.6 Passive monitoring of bat activity was undertaken using an automated logging system Wildlife Acoustics Inc. Song Meter® SM4Bat FS bat detectors with outputs saved to an internal storage device. The detectors used SMM-U2 microphones. Detectors were placed at features considered to be of value to bats, such as hedgerows, trees and scrub, as shown on Figure 6.

2.7 Static detectors were deployed to record across five consecutive nights between 14/05/25 and the morning of 19/05/25 inclusive during suitable weather conditions (little no rain/wind and temperatures above 10°C). Detectors were programmed to activate 30 minutes before dusk and recorded continuously until 30 minutes following sunrise.

2.8 The recorded data were analysed using Sonobat™ 30.1 (SonoBat™ Inc.) software package to assess the amount of bat activity on Site by recording the number of bat passes.

[1] The Bat Conservation Trust 2023. *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn).

2.9 The data were analysed using the Sonobat™ 30.1 (SonoBat™ Inc.) software package to assess the amount of bat activity on site by recording the number of bat registrations. Data were initially run through the auto-analysis function of the software with manual vetting taking place of every call with the exception of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*. Noise files were also manually vetted. Measurements including peak frequency, inter-pulse interval, call duration and end frequency were taken to aid in species identification. This analysis was completed by a suitably experienced ecologist (as above, analysts are audited internally for quality control purposes and to maintain consistent results).

2.10 Results are not a definitive list of numbers of bats on-site or representative of a number of individuals. The usage of auto analysis software classifies registrations based on probabilities for the species of highest confidence. A degree of verification has been undertaken to provide continued confidence that the software has performed within the previously defined confidence threshold in terms of misclassified or false positive identifications. In accordance with advice taken from an independent professional statistician (who has reviewed the SonoBat UK analysis software package and parameters used by FPCR Environment & Design Ltd. by using a significant dataset), a percentage of each species was manually verified where required. Percentages vary according to species detected. Standard deviation = ±8.3 and in accordance with Chapter 10 of the BCT Guidelines, the verification process adopted above is accepted by the Guidelines as the degree of error is known for the parameters used and appropriate error thresholds have been applied, above which a species identification is accepted.

Limitations

2.11 No significant survey limitations were encountered.

3.0 RESULTS

3.1 Please note; for the purposes of the below a bat 'contact' relates to an instance of a bat being recorded by the surveyor which in some cases has multiple passes (such as foraging) but is noted as the same bat.

3.2 Due to the manner of recording equipment and analysis this is different to the static detector section which uses the term 'registration' which has a different meaning (please see below for more details).

3.3 The following table is a summary of the transect data with notable results subject to a breakdown in text below the table. Figure 6 shows the individual transect results.

Table 2: Transect Activity Summary

Survey Occasion	Number of bat contacts	Species Observed	Summary of bat activity
Spring 2025 – See Figure 6	19	Common pipistrelle Soprano pipistrelle Noctule	The majority of bats were recorded during the first hour at each flightlines location.

3.4 The following is a breakdown of activity levels on the Site:

- Activity was focussed around each flightlines location, with location A having the first registration at 21:20, a common pipistrelle.
- A common assemblage of bats were recorded, including Common pipistrelle, soprano pipistrelle and noctule.
- No notable or rare species were noted during these transects.

Static Bat Detector Surveys

3.5 The following details the results of static monitoring of bat activity in 2025 with the table showing the summarised results and Figure 6 showing locations of units.

Table 5: Static Detector Results

Static ref #	Location (see Figure 6)	Total Registrations	Most Recorded Species (Number of Registrations)	Other Species Recorded (Number of Registrations)
Spring - Unit 13	Western side of site along a hedgerow with ditch	48	Common pipistrelle (40)	Noctule (6) Soprano pipistrelle (2)
Spring - Unit 14	Eastern side of the site, on an area of mixed scrub adjacent to a line of trees	1653	Common pipistrelle (1583)	Soprano pipistrelle (38) Brown Long-eared bat (15) Myotis species (7) Noctule (6) Pipistrelle species (2) Nyctalus species (2)

3.6 The following text breaks down the collected data with numbers referring to registrations or static reference numbers as opposed to the number of bats, (see notes below this result section for clarification).

3.7 The bat activity levels ranged from 1653 to 48 registrations. The highest activity levels (1628 registrations) were noted at Eastern side of the site, on an area of mixed scrub adjacent to a line of trees.

3.8 The lowest activity levels (48 registrations) occurred on the static detector placed at the Western side of site along a hedgerow with ditch.

3.9 Common pipistrelle dominated the data set with c.95% of the data, with Soprano pipistrelle second with approx. 2%. All other species were recorded at less than 1% of the data set.

3.10 The below table shows the relative percentage values of each species.

Table 6: Species Abundances

Species	Total registrations	Percentage (%)
Common Pipistrelle	1623	95.414%
Soprano Pipistrelle	40	2.352%
Brown Long-eared	15	0.882%
Noctule	12	0.705%
Myotis Species	7	0.412%
Pipistrelle Species	2	0.118%
Nyctalus Species	2	0.118%

4.0 DISCUSSION AND CONCLUSIONS

Bat Activity Assessment

4.1 All species of bats and their roosts are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it illegal to deliberately disturb bats or damage or destroy their roosts. Bats are also afforded full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is illegal to recklessly or intentionally kill, injure or take a species of bat or recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection or disturb any bat whilst they are occupying such a place of shelter or protection. Some bat species are also Species of Principal Importance under the NERC Act.

4.2 Of the bat species recorded present, common pipistrelle, soprano pipistrelle, noctule, *Myotis* species, *Nyctalus* species, and brown long-eared bat are common and widespread species that are frequently associated with the habitat present with the Site and surrounding landscape. No Annex listed or rarer/notable bat species such as barbastelle were recorded present.

4.3 The transect survey recorded relatively low levels of activity with single bat noted during the walked transect.

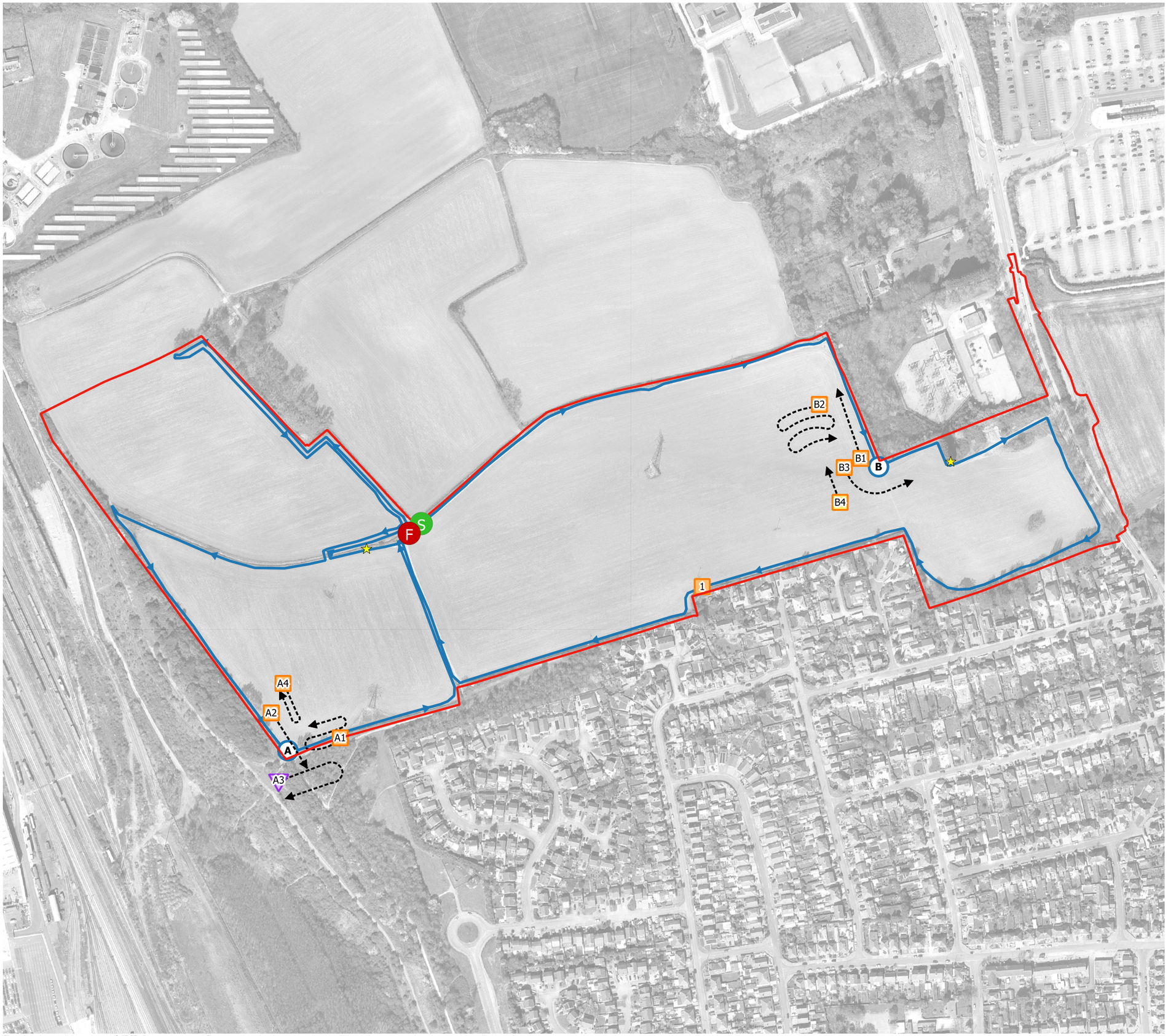
4.4 Activity surveys have identified the mixed scrub to the eastern corner of the site as being regularly used by commuting and foraging bats. Overall, higher levels of activity were seen at the southwestern corner and northeastern corner of the Site whereas very low levels of bat activity were recorded within the eastern side of the Site.

4.5 Based on field data it is considered that the Site likely forms a relatively minor part of a network of foraging and commuting areas within the wider landscape, with the majority of the bats present being pipistrelle species who are capable of adapting to urban environs. Thus, proposed development would not significantly impact the Favourable Conservation Status of the bat species confirmed present.

4.6 The updating survey data summarised within this note is consistent with earlier findings, therefore the mitigation and enhancement measures proposed within the submitted Appendix 7.1 Ecological Appraisal are consequently considered to remain sufficient and appropriate to mitigate any potential effects.

APPENDIX A: BAT STATIC TABLE

Recording Period	Unit No.	Start date	End Date	Survey Hours	Total Av. Per Hour	Total Registrations	Common Pipistrelle			Soprano Pipistrelle			Brown Long-eared			Noctule			Myotis Species			Pipistrelle Species			Nyctalus Species		
							Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour
May	U13	14/05/2025	19/05/2025	45	1.062	48	40	13	0.89	2	1	0.04	0	0	0.00	6	3	0.13	0	0	0.00	0	0	0.00	0	0	0.00
May	U14	14/05/2025	19/05/2025	45	36.573	1653	1583	491	###	38	10	0.84	15	6	0.33	6	2	0.13	7	7	0.15	2	1	0.04	2	1	0.04
			Totals:	90	18.818	1701	1623	491	17.95	40	10	0.44	15	6	0.17	12	3	0.13	7	7	0.08	2	1	0.02	2	1	0.02



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0 100 200 m

Site Boundary
Static Detector Locations
Start point
Finish point
Surveyor position
Flight arrows
Transect Route

Bat contacts
Common Pipistrelle
Soprano Pipistrelle
Noctule

Flightlines Results

REF	TIME	SPECIES	PASSES	BEHAVIOUR
A	21:20	Common pipistrelle	1	Foraging
A	21:25	Common pipistrelle	3	Foraging
A1	21:28	Common pipistrelle	3	Foraging
A	21:29	Soprano pipistrelle	1	Commuting
A	21:31	Common pipistrelle	4	Foraging
A2	21:35	Common pipistrelle	3	Foraging
A3	21:36	Noctule	1	Commuting
A	21:38	Common pipistrelle	3	Foraging
A4	21:41	Common pipistrelle	3	Foraging
A	21:44	Common pipistrelle	4	Foraging
A	21:48	Common pipistrelle	5	Foraging
B	21:34	Common pipistrelle	2	Foraging
B	21:39	Common pipistrelle	3	Foraging
B1	21:45	Common pipistrelle	3	Foraging
B2	21:48	Common pipistrelle	3	Foraging
B	21:51	Soprano pipistrelle	1	Foraging
B3	21:52	Common pipistrelle	3	Foraging
B4	21:54	Soprano pipistrelle	1	Foraging

Transect Results

REF	TIME	SPECIES	PASSES	BEHAVIOUR
1	22:02	Common pipistrelle	1	Foraging

date: 08/12/25
drwn/chkd: CB / KG

client: **Bloor Homes**

project: **Toton West, Nottingham**

title: **BAT TRANSECT RESULTS PLAN - 14/05/2025**

scale: 1:3,500 @ A3

number: **FIGURE 6**

rev: -

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t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk