150 Holborn – Addendum to the Bat Inspection and Survey Report, July 2018

1.0 Introduction

1.1 Introduction

Aven Ecology Ltd was commissioned by Dar Al-Handasah Consultants (Shair and Partners) UK Ltd. to carry out a bat inspection and survey in respect of bats at 150 Holborn, London, in June 2018 to update the results of the survey carried out in August 2015 (Aven Ecology, 2015). Additional surveys were then commissioned after evidence of a bat roost was found.

1.2 Background

Following the single dusk emergence survey and static monitoring period on 3rd July 2018, evidence of a bat roost was identified in the form of bat calls within the typical emergence and re-entry period of common pipistrelle bats (Jones & Walsh, 2006). Further surveys were therefore recommended, and a licence will be required prior to licensable works commencing.
The Bat Inspection and Survey Report (Aven Ecology, July 2018) was submitted to the Local Planning Authority to discharge the Planning Condition relating to bats prior to the last survey being completed. The results of the final bat survey are included within this addendum.

2.0 Methodology

2.1 Introduction

Following the update survey and the static monitoring period, which resulted in the identification of a bat roost on the Site, the following further surveys were recommended:

1) A dusk emergence and dawn re-entry bat survey and a dusk emergence survey focussing on previously identified potential roosting features.
2) A second period of static monitoring inside the building using an automated bat detector.

The second dusk/dawn survey has been completed and the results are included within the Bat Inspection and Survey report (Aven Ecology, July 2018). The results of the second period of static monitoring and the third dusk survey are included within this addendum.

2.2 Bat Activity Survey

The survey was carried out in accordance with best practice guidelines (Collins, 2016). Two surveyors were deployed; one was situated within the courtyard of the Site and the second was positioned on Grays Inn Road for the initial period of the survey, and a transect was walked around

the Site for the latter part of the survey. The survey was designed to cover the bat access points and roosting opportunities identified during the internal and external inspection as well as assess the level of bat activity across the overall Site. The location of each bat pass, the direction of flight, the species and the behaviour of the bat were recorded on standardised survey forms and field maps. Although not the principal focus of the study, efforts were made to identify potential bat emergence behaviour and thus determine the presence of any roosts.

For the purposes of the survey, a bat pass is defined as "*two or more bat calls in a continuous sequence; each sequence or pass is separated by 1 second or more in which no calls are recorded*" (Collins, 2016).

The dusk emergence survey commenced up to 15 minutes before sunset and continued for approximately 1.5 hours after sunset.

2.3 Static Monitoring Survey

An SM2+ automated bat detector was installed on the 6th floor of the building on 23rd July 2018 and was left in place for six nights to record any bat activity within the building.

2.4 Survey Dates, Surveyor and Equipment Used

The survey was undertaken by Dr Kevin Hume CIEEM and Anna McDermott CIEEM, holders of a Natural England Class Licence WML CL-18, on 6th August 2018.

The equipment used during the surveys included:

- Batlogger M detectors
- SM2 automated detector

All bat calls were recorded and later analysed using Analook and BatExplorer sound analysis software.

Table 1 below presents the survey dates and the weather conditions during the survey.

Table 1: Survey Date and Weather Conditions

Survey	**Date**	**Sunset**	**Start/ End**	**Time**	**Weather Conditions (Start/end of Survey)**			
					Temp. (° C)	Wind (Bft)	Cloud (Okt)	Precipitation
Dusk	06.08.18	20:41	Start	20:26	29.2	1	0	No
			End	22:12	26.1	0	0	

2.5 Limitations

The building is located in a very urban area of London, which is highly illuminated and subject to heavy traffic flow. The glare of artificial illumination, coupled with the height of the building, could obscure visual observation of flying bats; the ultrasonic noise associated with vehicles could obscure auditory recording of bat echolocation calls. Furthermore, where bat activity is very low, and where roosting is only very brief and occasional, the probability of detecting roosts, even

through multiple activity surveys is correspondingly low. Therefore, the use of multiple, extended periods of static monitoring at height within the building helps to mitigate this limitation.

Any ecological survey represents a snapshot of ecological conditions at the time of survey; ecological conditions may change over time. The details within this report will therefore remain valid for a period of up to 24 months; beyond that date it is advised that a review of ecological conditions is undertaken.

3.0 Results

3.1 Bat Activity Survey

Figure 1 shows the position of the surveyors during the survey and the transect route walked. The raw survey data is included within Appendix 2.

Dusk Survey – 6th August 2018

No bats were seen emerging from 150 Holborn and no bats were recorded during the transect survey around the building. Figure 1 shows the transect route walked during the survey.

3.2 Static Monitoring Survey

Period 2– 23rd July – 6th August 2018

A static detector was installed on the 6th floor of the building on 23rd July and recorded for a period of six nights until 28th July. The detector was placed on the 6th floor as the greatest number of potential roosting opportunities had been identified on this floor during the internal inspection and the open windows and connections to the 7th floor roof provided the greatest number of potential bat access points (Aven Ecology, 2015).

On three of the six nights the static detector was deployed, bats were recorded. Brief common pipistrelle passes were recorded on the nights of 23rd, 25th and 26th July, however these passes were all outside of the usual period where bats emerge from or return to their roosts, typically half an hour after sunset and half an hour before sunrise for Pipistrelle species (Jones & Walsh, 2006). All passes were recorded over an hour and a half after sunset or over three hours before sunrise.

The location of the static detector for the period of the monitoring survey is shown on Figure 1, Appendix 2. Raw survey data is included within Appendix 1.

Appendix 1 – Survey and Static Monitoring Data

Table 1: Raw Survey Data – Dusk 6th August

Surveyor: Kevin Hume Equipment: Batlogger

Time	Species	Type of Activity	Number of Passes
No bats seen or heard			

Surveyor: Anna McDermott Equipment: Batlogger

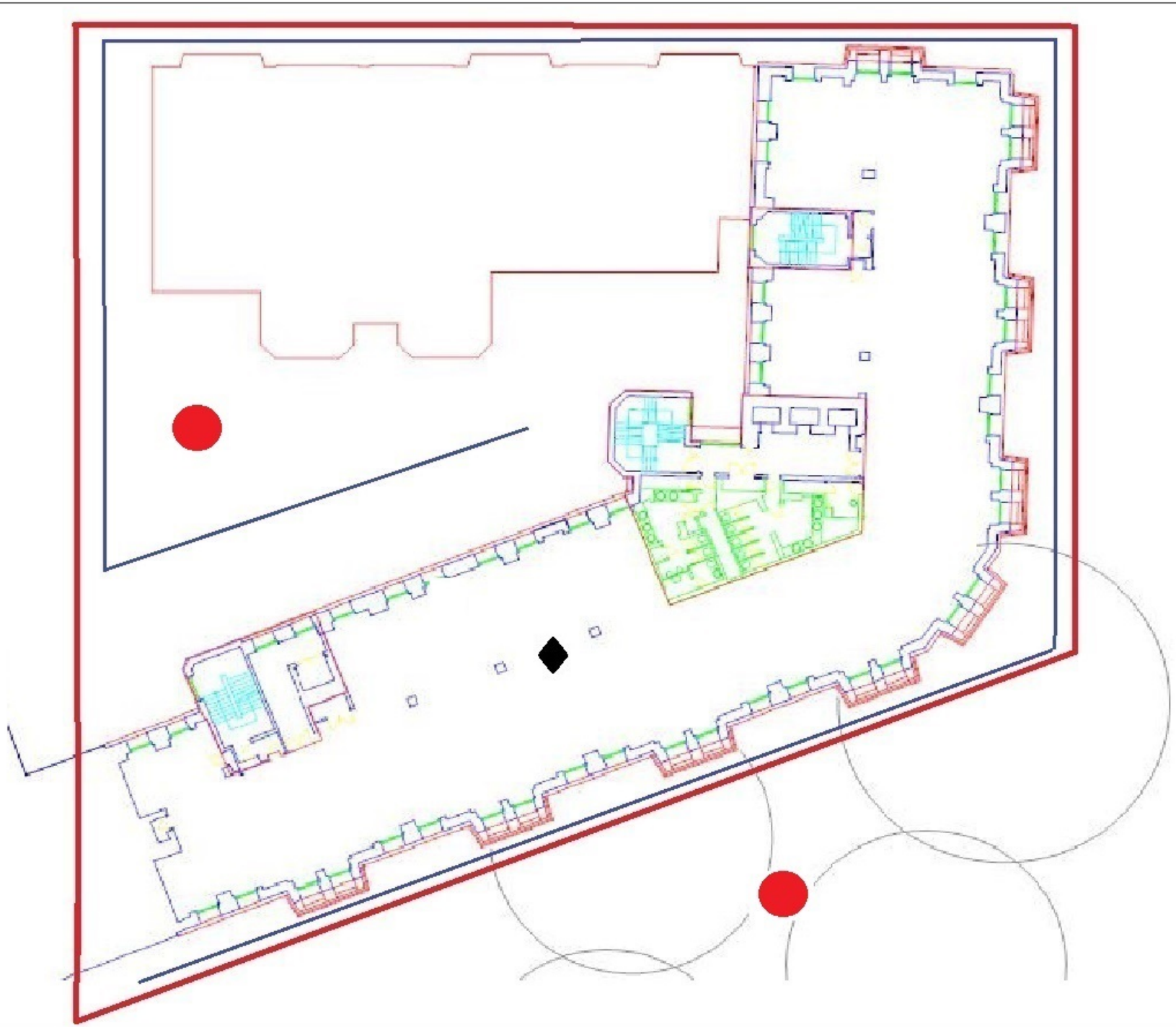
Time	Species	Type of Activity	Number of Passes
No bats seen or heard			

Table 2: Static Monitoring Period 2 Raw Survey Data – 23rd -28th July Equipment: SM2

Date	Time	Species	Number of Passes
23/07/2018	22:59	Common pipistrelle	1
24/07/2018	01:34	Common pipistrelle	1
25/07/2018	23:15	Common pipistrelle	1
26/07/2018	00:01	Common pipistrelle	1
26/07/2018	01:30	Common pipistrelle	1
26/07/2018	02:02	Common pipistrelle	1
26/07/2018	22:36	Common pipistrelle	1
26/07/2018	23:14	Common pipistrelle	1
26/07/2018	23:53	Common pipistrelle	1
27/07/2018	00:14	Common pipistrelle	1

Appendix 2 – Figures

Figure 1: 150 Holborn – Bat Survey Results 6th August 2018



Key:

- Approximate redline boundary
- Location of Static Detector - 6th Floor
- Transect Route walked in last half hour of survey
- Position of Surveyors

N

Scale:	-
Client:	Dar Group Ltd
Project:	150 Holborn
Title:	Bat Survey Results 6th August 2018
Date:	August 2018
Figure:	1
Version:	
Drawn:	AM
Checked:	AM

Aven Ecology