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**University of Manchester - Graham and Ewings Halls  
of Residence Re-development  
Bats: Building and Activity Surveys**

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**Simply Ecology Limited**

**Ref: SE/GTHQ001/02**

**October 2022**

**For:**

**The University of Manchester**

**Oxford Road**

**Manchester**

**M13 9PL**

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## Control Sheet

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## 1.0 INTRODUCTION

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### 1.1 Background Information

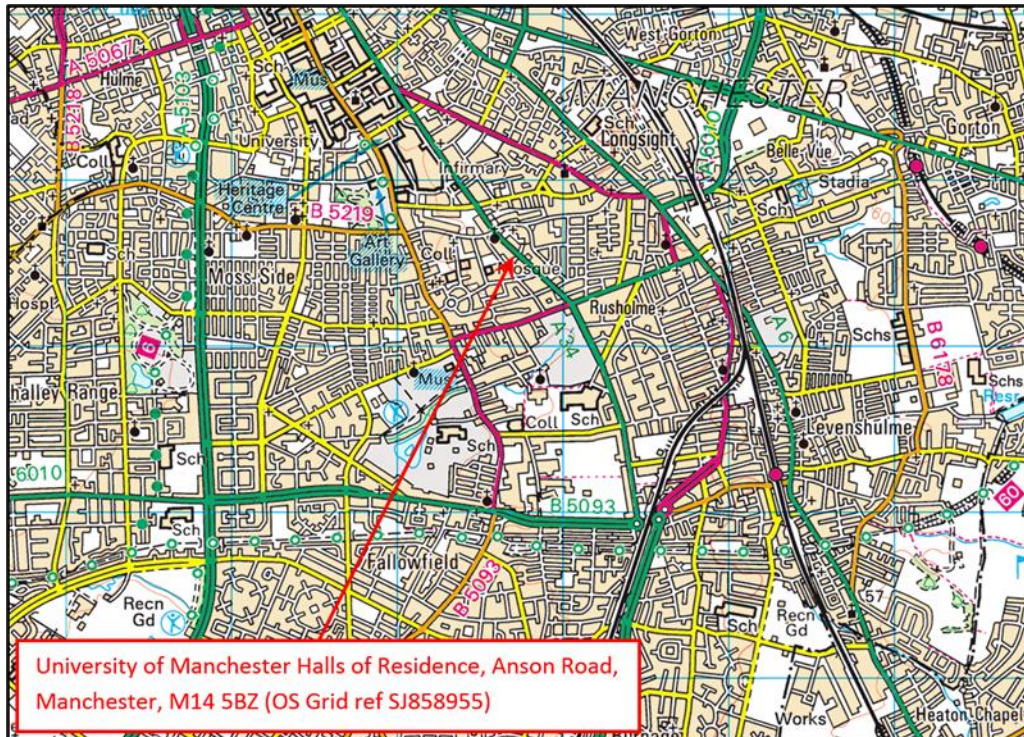
- 1.1.1 In July 2018 and July 2022, Simply Ecology Limited was commissioned by The University of Manchester to undertake a series of surveys for bats at Graham and Ewings Halls of Residence, Anson Road, Victoria Park, Manchester, M14 5BZ (OS Grid ref SJ858 955), hereafter referred to as the site (See Plan 1: The Site Location).

### 1.2 Aims

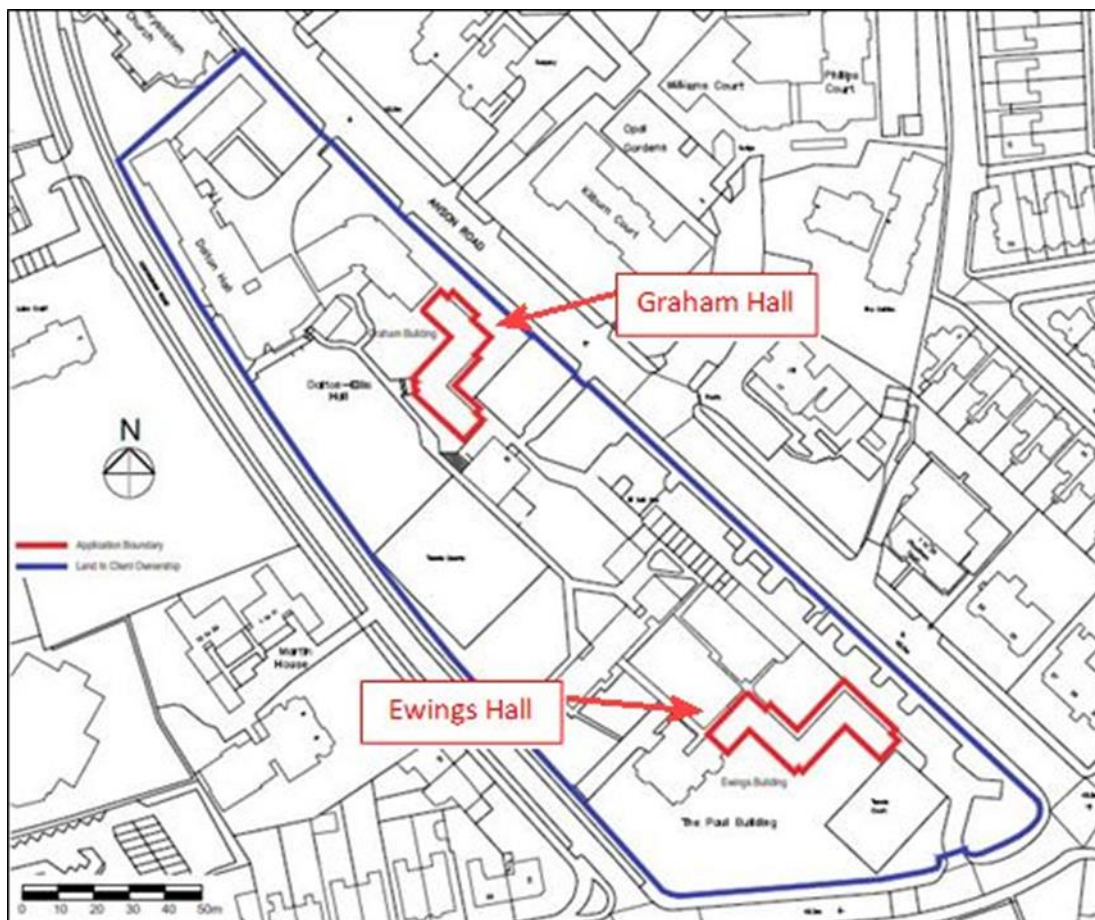
- 1.2.1 The aims of this survey were to gather up-to-date information on the presence of bats at the site. This involved:
- Identifying potential structures of the buildings that could be used by bats.
  - Identifying if there was any evidence of bats around the buildings.
  - Providing an assessment of the likely importance of the site for bats and their conservation.
  - Advising the client in relation to the proposed development and any impacts upon bats in order to ensure legislative compliance.
- 1.2.2 To achieve this, a bat building inspection was undertaken on 2<sup>nd</sup> September 2022. Follow up night-time activity surveys of the properties were carried on 15<sup>th</sup> and 29<sup>th</sup> September 2022. The original activity surveys were undertaken on 8<sup>th</sup> August and 14<sup>th</sup> September 2018. This submission presents the results of the surveys at the site.

### 1.3 Site Description and Proposed Works

- 1.3.1 The site is located in the city of Manchester (see Plan 1) in the suburban setting of Victoria Park, 3km south-east of the city centre. The buildings comprise two 3 and 4 storey, purpose-built halls of residence built in 1980s (see Plan 2). The area surrounding the site is urbanised with residential properties with some open areas of parkland and large residential gardens.
- 1.3.2 The surveys described in this report were commissioned to inform a future planning application by University of Manchester. The proposed work consists of a suite of internal refurbishment, some reconfiguring and remodelling of the buildings, filling of cavity walls and replacement of asbestos cement tiles on the roofs. The planning process requires up-to-date survey data in order to assess the ecological value of the site and the presence of any notable habitats or protected wildlife. Prior to carrying out such works the local planning authority is obligated to ensure that there is no adverse impact upon protected species. This submission presents the results of the surveys at the site.



Plan 1: Site location.



Plan 2: The Site Plan.

## 2.0 SURVEY METHODOLOGY

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### 2.1 Bat Building Inspection

2.1.1 An inspection of the building on the site was specifically carried out to search for bats. The building survey was undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2016). In accordance with best practice, the survey comprised the following elements:

- An inspection of the exterior of the building to look for obvious signs of bat activity (such as droppings) and assessing the potential for entry/exit into the property. In order to facilitate a thorough and comprehensive inspection this was undertaken using a 20m mobile elevated work platform to access the roof.
- An internal inspection of all spaces to determine whether bats were present, to look for signs of activity (such as discarded prey items and droppings) and to assess potential suitability for bat species. Lighting was provided by a Led Lenser XEO 19R (2,000lm).

2.1.2 Subsequent advice/action would depend on the findings of the building surveys. If potential was found then subsequent bat activity surveys would be required in accordance with standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (Bat Conservation Trust 2016).

### 2.2 Bat Tree Survey

2.2.1 As part of the survey, a visual survey of all trees was carried out using 10x42 binoculars. The survey was undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2016). The survey comprised of identifying the following features:

- Woodpecker holes with small cracks/crevices
- Cracks/crevices, ivy cover and flaking bark
- Loose or flaking bark deadwood in canopy or stem low/no ivy cover
- Medium to dense ivy cover
- Deadwood in canopy or stem
- Snagged branches
- Hollow stems or limbs
- Hole in buttresses/hollow core

2.2.2 The following signs were searched for, as these would indicate bat presence:

- Staining around a hole, caused by natural oils in the bats' fur.
- Stains beneath a hole, caused by bat urine.
- Scratch marks around a hole, caused by bat claws.
- Bat droppings beneath a hole.

- Audible squeaking from within a hole, especially on hot days or at dusk.
- Insects (especially flies) around a hole.

2.2.3 Once surveyed, each tree was categorised, using Bat Conservation Trust guidelines, according to its potential to support roosting bats into one of four categories:

- 1 Confirmed bat roost,
- 2a. High potential to support bats,
- 2b. Low/moderate potential to support bats, and
3. Negligible potential to support bats.

## 2.1 Bat Activity Surveys

2.1.1 Surveys were undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (Bat Conservation Trust 2016). In accordance with best practice, the survey comprised the following elements:

- Emergence Survey: Two night-time visits were undertaken to determine if bats were emerging from the buildings and to assess levels of activity. Activity during the time around and post sunset was observed visually and using Wildlife Acoustics EM Touch with iPads for recording. This equipment not only records the bats but also uses automatic ID software to identify those bats detected.
- In May 2022 the Bat Conservation Trust<sup>1</sup> published interim guidance that allows for “a transition away from the standard use of dawn surveys, in favour of dusk surveys supported by Night Vision Aids” (NVAs). The second emergence survey was undertaken with the use of NVAs (including Canon XA10HD camcorder in infrared mode, Nightfox Red HD Infrared (IR) night vision goggles and a Sony handycam with zero lux nightshot) in combination with IR illumination to enhance observations.
- During the surveys, the observers stood at appropriate locations, which were judged to provide the best coverage of the building. From this location, the observers would be expected to hear and also see any bats emerging from the building where roosts were anticipated or likely (see Plan 4).

## 2.2 Personnel

2.2.1 All surveys were conducted by Philip Wright and Philip Roskell.

2.2.2 Philip Wright MSc CIEEM. Philip is an Ecologist with Simply Ecology Limited. He obtained his first degree in Biology from the University of Bath and an MSc in Ecology and Conservation from Lancaster University. He is a member of the North Lancashire Bat Group and is in his sixth season of bat surveying. His wider experience includes conducting botanical surveying and habitat management work with the RSPB and with the Wildlife Trust for Lancashire, Manchester and North Merseyside.

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<sup>1</sup> Bat Conservation Trust (2022) Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys.

- 2.2.3 Philip Roskell MSc obtained his BSc Ecology and Conservation degree from Lancaster University in 2020 and has since completed an MSc Ecology by Research degree where he studied white-throated dippers. Since graduating from his MSc at Lancaster University, Philip has been working as a freelance ecologist and has gained experience assisting Simply Ecology in a variety of ecological surveys including bats, badgers and amphibians. Philip also has experience in report writing and producing maps using GIS software.
- 2.2.4 In addition, the night-time bat activity surveys were also conducted by Kevin Heywood, Samantha Gray, Richard Lowe and Jason Reynolds.
- 2.2.5 Kevin Heywood BSc (Hons) ACIEEM is an Ecologist with Simply Ecology Ltd. Kevin graduated with a first-class honours degree in Ecology from Lancaster University in 2015. In addition to this, he has acquired experience since 2012 working as an ecologist in a freelance capacity and since 2015 as a full-time employee for Simply Ecology Ltd. During this time, he has developed numerous field skills and carried out a wide range of botanical and protected species surveys. His expertise predominantly lies with habitat mapping and undertaking protected species surveys including: bats, great crested newts, badgers, otters and reptiles. Kevin holds a protected species licence for all British bats.
- 2.2.6 Samantha Gray BA (Hons) GradCIEEM is a Business Ecologist working for Simply Ecology Limited. Since graduating with a Geography degree from Lancaster University in 2015, Samantha has gained 2 years' of experience in ecology. During this period she has completed an internship with Simply Ecology, where she developed her skills in botany, bat surveys and data analysis and also subsequently worked at RSPB Leighton Moss, carrying out habitat management and species monitoring work. In 2016 Samantha became a full-time employee with Simply Ecology as an Ecologist and Office Manager.
- 2.2.7 Richard Lowe BSc (Hons) PGCE assisted with the dusk survey. Richard studied Environmental Management at The University of Central Lancashire and graduated in 1996. He has worked as an ecologist since that time in a variety of consultant roles, including as a Senior Ecologist at ERAP and latterly as a freelance contractor. Richard holds a great crested newt science and education licence. He has a broad range of experience of ecological survey and reporting knowledge, covering habitat mapping, protected species surveys and Environmental Impact Assessments. Richard is also an enthusiastic environmental educator, and regularly takes out school groups in Lancashire for the RSPB in his role as a Field Teacher.
- 2.2.8 Night time survey and report verification were by Jason Reynolds MSc MCIEEM. Jason started Simply Ecology Limited in 2007. Jason is an experienced ecologist who has been continuously employed in the field of nature conservation since 1995 (over 27 years' experience) and has a wealth of experience in both the statutory nature conservation agencies and private consultancy. During his career he has worked in Conservation Officer roles for the Joint Nature Conservation Committee, English Nature, Environment Agency, Cumbria Wildlife Trust and Durham Wildlife Trust prior to setting up Simply Ecology ecological consultancy in 2007, where he is the Lead Ecologist. He has an MSc from The University of Aberdeen and his thesis investigated the relationship between habitat type and complexity and the foraging behaviour of Pipistrelle bats. Jason holds protected species survey licences for all British bats, white-clawed crayfish and great crested newts.

### 2.3 Timing and Constraints

- 2.3.1 The building surveys were undertaken on 18<sup>th</sup> July 2018 and 2<sup>nd</sup> September 2022. The timing of the building inspection to search for signs of bats posed no constraints as building inspections can be undertaken at any time of year. An assessment of the building's potential to support bats can therefore be made according to evidence found, building condition, location and the experience of the surveyor.
- 2.3.2 The night-time activity surveys at the site were carried on 8<sup>th</sup> August and 14<sup>th</sup> September 2018 and 15<sup>th</sup> and 29<sup>th</sup> September 2022. The weather conditions were considered satisfactory to observe and record any activity of these species at the site (see Table 1). There were no significant obstructions to vision anywhere around the buildings and it was possible to get excellent sight-lines.

*Table 1: Weather conditions during the bat surveys.*

| Survey date | Temp at the start of survey | Sunrise/ Sunset | Start and finish times | Weather                                              |
|-------------|-----------------------------|-----------------|------------------------|------------------------------------------------------|
| 8/08/2018   | 15 °C                       | 20:52           | 20:45                  | Still and dry<br>20% cloud cover.                    |
| 14/09/2018  | 11 °C                       | 06:40           | 05:10                  | Intermittent light breeze and dry; 100% cloud cover. |
| 15/09/2022  | 15 °C                       | 19:26           | 18:50 - 21:00          | Light breeze and dry.<br>40% cloud cover,            |
| 29/09/2022  | 14 °C                       | 18:50           | 18:35 – 19:50          | Still and dry<br><10% cloud cover,                   |

## 3.0 SURVEY RESULTS

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### 3.1 Bat Building Inspection

- 3.1.1 The proposed works are due to be carried out on Ewing and Graham Halls; these two buildings were inspected for any signs of recent or historic bat activity. In addition, all buildings were searched for suitable access points and roosting sites.

#### External

- 3.1.2 The survey began by checking the exterior of the buildings. Both Ewing Hall and Graham Hall were purpose built in the 1980s (see Plate 1). They were constructed from red brick with overlapping tile on pitched roofs. They both appeared to be generally, structurally sound although there was evidence of water damage on some of the soffits.



*Plate 1: General views of Ewing and Graham Hall*

- 3.1.3 The inspection began by checking the roof of the building. The roofs were pitched and of overlapping asbestos cement tiles. Whilst the general condition of the roofs was satisfactory, and with tightly interlocking tiles, there were some missing and broken ridge tiles with gaps

beneath (see Plate 2 & Plate 3). It was clear from the inspection that these gaps and crevices would provide Potential Roost Features (PRFs) for bats (see Plate 4 & Plate 5).



*Plate 2: General roof view from MEWP broken and missing ridge tiles were apparent.*



*Plate 3: Missing and broken ridge tiles were apparent across the roofs.*

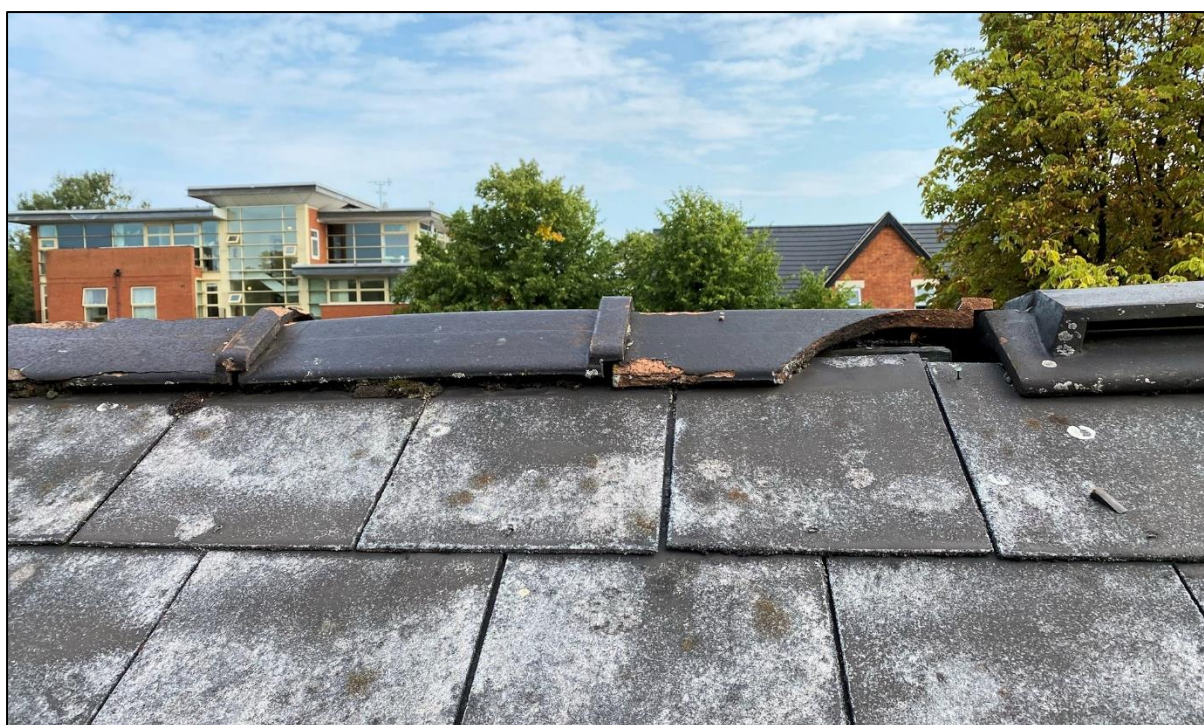


*Plate 4: Potential Roost Features in the form of broken ridge roof tiles were apparent.*



*Plate 5: Even where ridge tiles were intact there were significant gaps beneath them.*

- 3.1.4 The verges were generally intact although there were areas of broken and missing mortar (see Plate 6). These were in typical locations used by bats, and so these areas of missing mortar were considered to be PRFs.



*Plate 6: Numerous gaps were apparent in the verges of the buildings.*

- 3.1.5 Within and below the gaps of the verge on the south face of Ewings were a small number of bat droppings (see Plate 7). The position of these droppings high upon the building were considered likely to be associated with bat roosts.
- 3.1.6 The eaves and soffits were generally in fair condition, although gaps were apparent in the soffits which offered some low bat roost potential (see Plate 8 and Plate 9).



*Plate 7: Droppings were identified within and below the verges of the building.*



*Plate 8: The soffits were generally intact although they were not well sealed and may offer low level Roosting Potential.*



*Plate 9: Gaps were apparent around the soffits providing potential access to internal roosting opportunities.*

- 3.1.7 The barge boards on the gable ends of Graham were also not well sealed and offered some further low level roosting potential.
- 3.1.8 The external walls of the two halls were examined and evidence of bat activity, in the form of droppings, was found on the external walls of Ewings Hall (see Plate 10) beneath some of the soffit gaps. Again, the location of these were considered likely to be associated with bat roost presence.



*Plate 10: There were numerous bat droppings on a north facing aspect of Ewings (see inset).*

- 3.1.9 Across both buildings, the window and door frames were generally intact with no obvious roost potential. However, the flashing around some of the frames was not flush with the roof tiles (see Plate 11). These might be PRFs.



*Plate 11: The flashing around window frames was not flush in places, leaving Potential Roosting space underneath.*

- 3.1.10 A thorough and comprehensive search of the ground and flat surfaces around the halls found no further evidence of bat activity (see Plate 12).

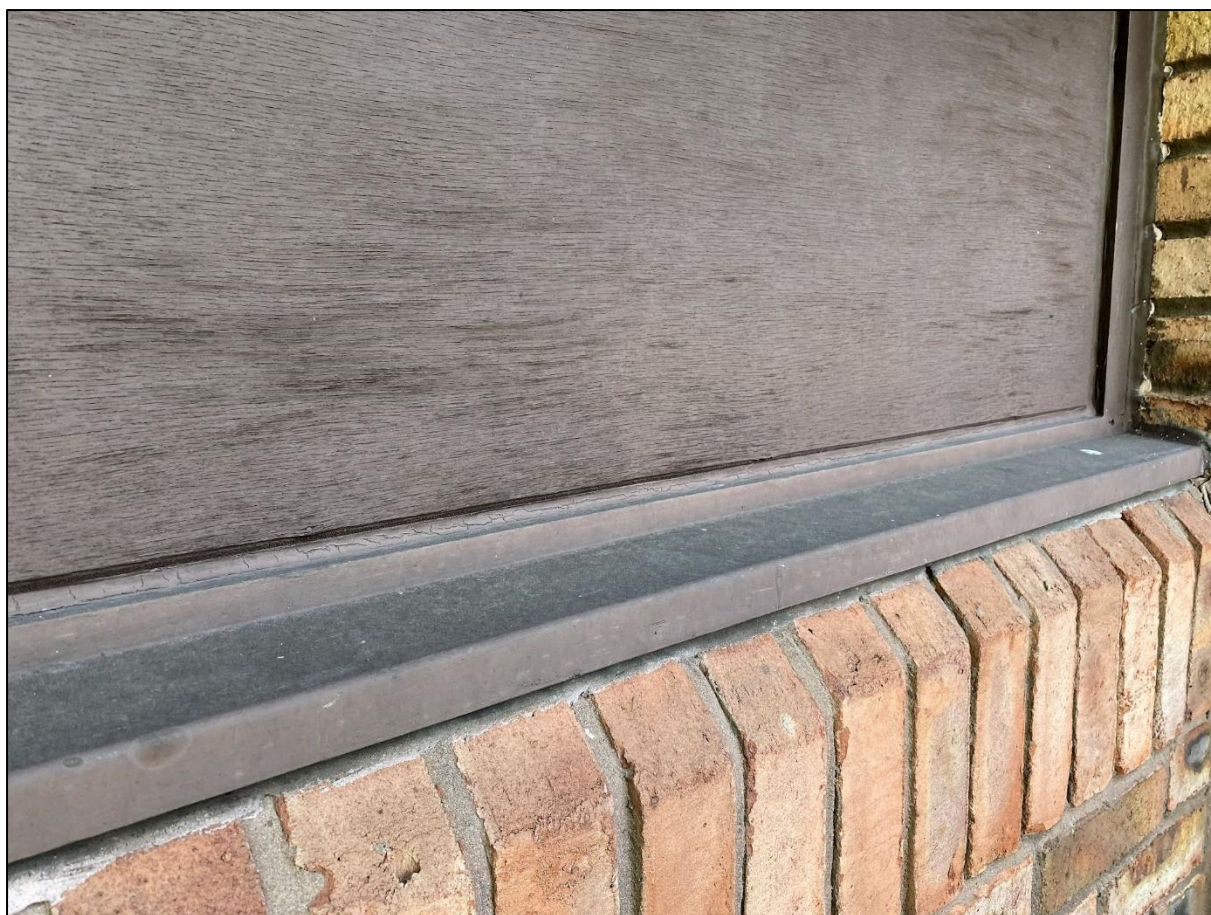


*Plate 12: The flat surfaces around the buildings had no evidence of bat activity.*

- 3.1.11 Overall, it was concluded that there were a number of the external aspects of the buildings which offered some clear roosting potential for bats, with gaps in the soffits and under the ridge tiles. It was considered that bat roost(s) were likely to be present. Further insight into this would be added during the Internal Survey.

#### Internal

- 3.1.12 The roof voids across both buildings were inspected for signs of bats. The voids were subdivided into several discrete spaces by blockwork walls that were open to the roofing timbers and fibre insulation throughout the voids (see Plate 13)
- 3.1.13 Gaps in the roof ridges were apparent that would allow unrestricted access to the internal space (see Plate 14 **Error! Reference source not found.**).
- 3.1.14 Gaps were around the soffits were also apparent in places which allowed further potential access to the internal voids (see Plate 15).
- 3.1.15 Flat surfaces and floors within the void were thoroughly searched for evidence of bat activity. Overall the vast majority of the loft spaces in both buildings did not reveal and evidence of bats or bat activity (e.g., droppings, discarded prey items). However, within Ewings a large collection of droppings were found adjacent to the feature identified externally (see Paragraph 3.1.8 and Plate 16) as well as a small number by the gable wall identified in Paragraph (see Plate 17). This added to the findings of the external survey which found bat

droppings close to the PRFs and the findings of the internal survey confirmed the high likelihood that active bat roosts were present, particularly in Ewings. No evidence of bat roosting was found in Graham.

- 3.1.16 In addition, there was significant evidence of mouse activity throughout the roof voids (see Plate 18). In addition some wasps nests were present in the loft voids (see Plate 19).



*Plate 13: The roof voids were subdivided into separate spaces that were open to the roofing timbers and insulation.*



*Plate 14: Gaps in the ridges identified externally allowed potential access to the internal voids.*



*Plate 15: An internal view of the soffits in Graham.*



*Plate 16: A large collection of bat droppings was identified in a void in Ewings.*



*Plate 17: Elsewhere there was further evidence of bat activity in the form of droppings by Ewings' gable wall.*



*Plate 18: There was evidence of mouse activity in the roof void of Graham Hall.*

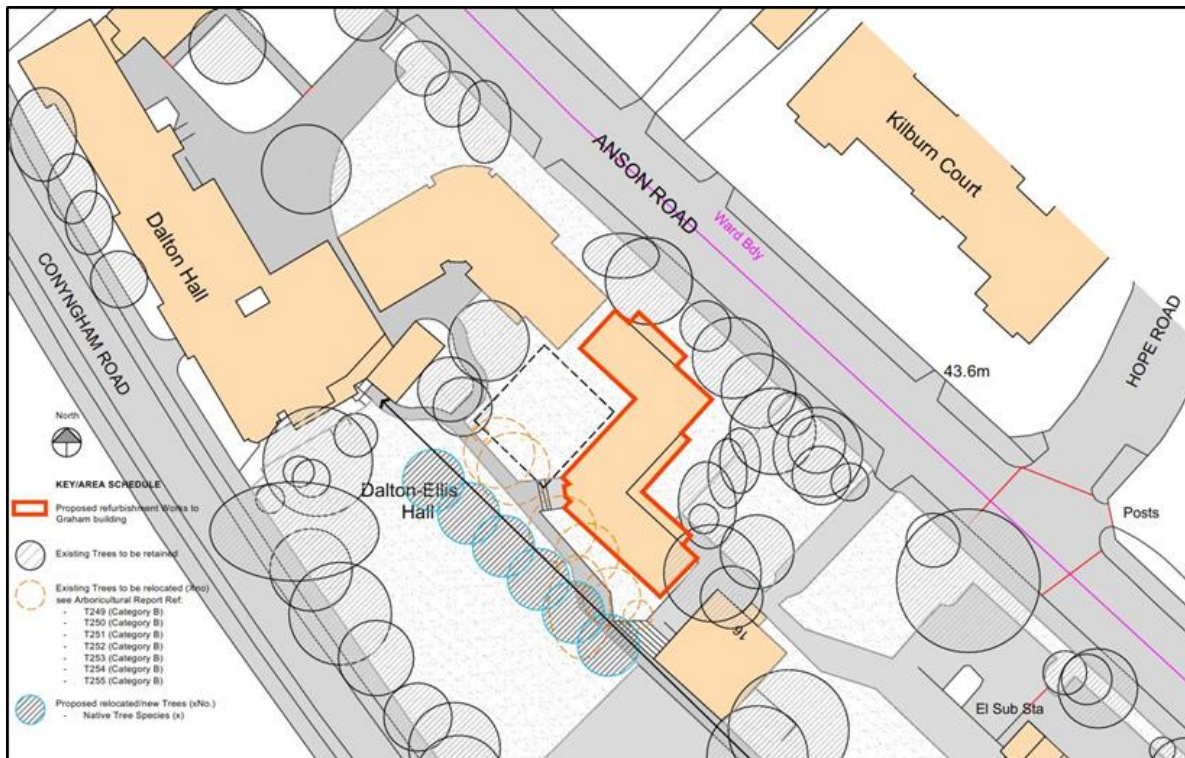


*Plate 19: A number of wasp nests were also identified with a substantial nest in a Ewings roof void*

3.1.17 **In summary**, it was concluded that a number of the external aspects of the buildings which offered roosting potential for bats, with gaps in the soffits, the ridge tiles and the verges. There was also evidence of bat activity in the form of droppings internally and externally. Bat roosts were highly likely to be present, especially within Ewings.

### 3.2 Tree Inspection

3.2.1 The trees around the two target buildings were inspected for Potential Roost Features (PRFs) and signs of bat activity. Particular attention was paid to the trees to the south west of Graham Hall which are due to be relocated as part of the general refurbishment (See Plan 3).



Plan 3: Location of trees on development site

3.2.2 Throughout the site were a number of mature and semi-mature trees. These included silver birch (*Betula pendula*), ash (*Fraxinus excelsior*) and large-leaved lime (*Tilia platyphyllos*) alongside Graham Hall.

3.2.3 The trees were all large and mature specimens, which were growing in close proximity to the halls. A thorough ground level tree inspection found that the trees which are due to be impacted by the proposed works had no PRFs and there were no signs or presence of features such as knot holes or hazard beams which would have indicated their use by bats (see Plate 20 and Plate 21). As such, all of the trees were categorised as Class 3 trees, with negligible potential to support any bat roosts.



*Plate 20: None of the trees adjacent to Graham Hall had any PRFs.*

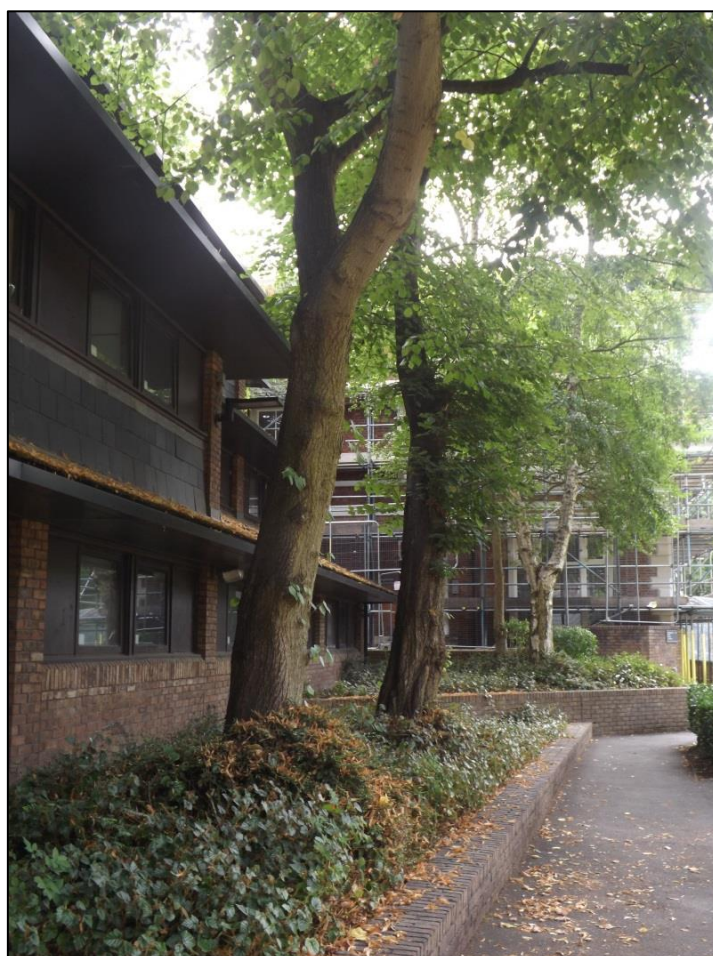
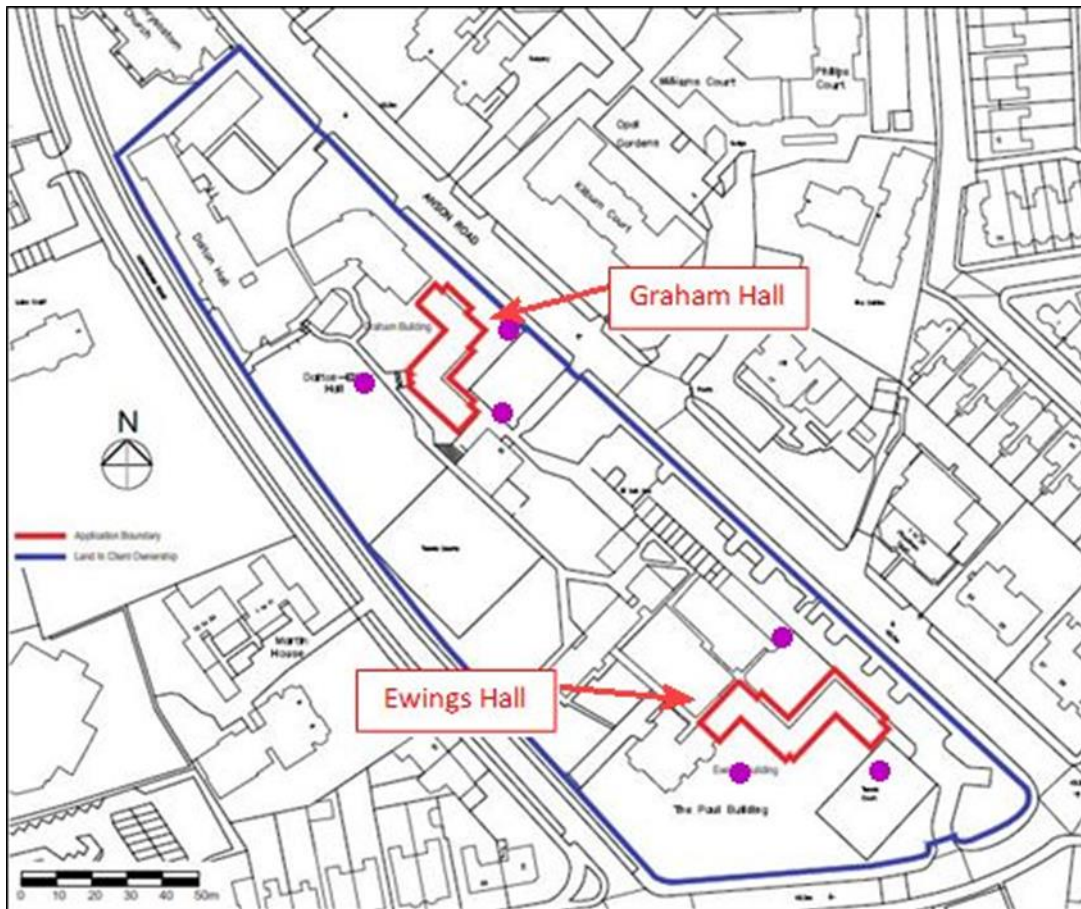


*Plate 21: Despite being mature specimens, the trees to be translocated had no PRFs.*

### 3.3 Bat Activity Surveys



Plan 4: Location of Surveyors.

#### Dusk Emergence Survey #1 8/08/18.

- 3.3.1 Very limited bat activity was observed during this survey. This comprised occasional common pipistrelle (*Pipistrellus pipistrellus*) bat passes briefly foraging around the various trees scattered across the site (the first recorded at 21:13). Such behaviour is indicative of bats passing through the site and foraging *en route* to other feeding areas. The only species encountered was common pipistrelle. In all, bats were recorded on site around half a dozen occasions, which is low and in line with previous surveys in the city centre, as it does not provide high quality bat habitat.
- 3.3.2 All aspects of the buildings were visible to the surveyors throughout the survey, though no bats were seen to emerge from either building. However, at 21:19 one single bat was seen flying close to the north eastern aspect of the roof on Graham Hall. This bat was not seen to emerge from the building, though it appeared to behave in such a way that is indicative of bats suggestive of a possible roost location nearby. A second survey was therefore considered necessary to confirm roosting or otherwise.
- 3.3.3 **In summary, there was minimal bat activity around the site, and no bats were observed emerging from the buildings. Limited, activity of interest was observed around Graham Hall.**

#### Dawn Re-entry Survey 14/09/18.

- 3.2.1 No bats were seen to enter either building during the dawn survey.
- 3.2.2 Activity levels were lower still during the dawn bat survey. In total 2 bats were recorded on site, both comprising common pipistrelles. These passes occurred within five minutes of each other, therefore potentially representing the same bat (5:45 and 5:50). Neither of these bats were seen anywhere near the building and were likely representing a common pipistrelle bat on a foraging loop, or bats commuting through site. Due to the exceedingly low levels of activity and a lack of confirmed roosting use, it was concluded that Graham Hall did not represent a bat roost.
- 3.2.3 **In summary, two single bat passes were recorded on site and no bats were observed returned to roost in either building.**

#### Dusk Emergence Survey #2 15/09/22.

- 3.3.4 The dusk bat activity survey of the site was conducted on the 15<sup>th</sup> August 2022. The survey began at 18:50. Only one bat species was recorded during the survey - common pipistrelle (*Pipistrellus pipistrellus*) and only very low levels of activity were recorded with infrequent commuting and foraging passes recorded at the site and no more than 1x bat was heard/seen flying at the site at any one time.
- 3.3.5 At 19:43 2 common pipistrelle were recorded emerging from the verges of the gable end with another common pipistrelle emergence at 19:45 (see Plate 22 ). These bats were observed flying west and north and were subsequently observed foraging briefly over the trees by Graham Hall to 20:19.
- 3.3.6 No bats were seen to emerge from Graham Hall.
- 3.3.7 **Three common pipistrelle were seen to emerge from the verges of the southeast facing gable end of Ewings Hall. Overall levels of bat activity at the site were exceedingly low and there was no remaining on site or foraging associated with the site.**

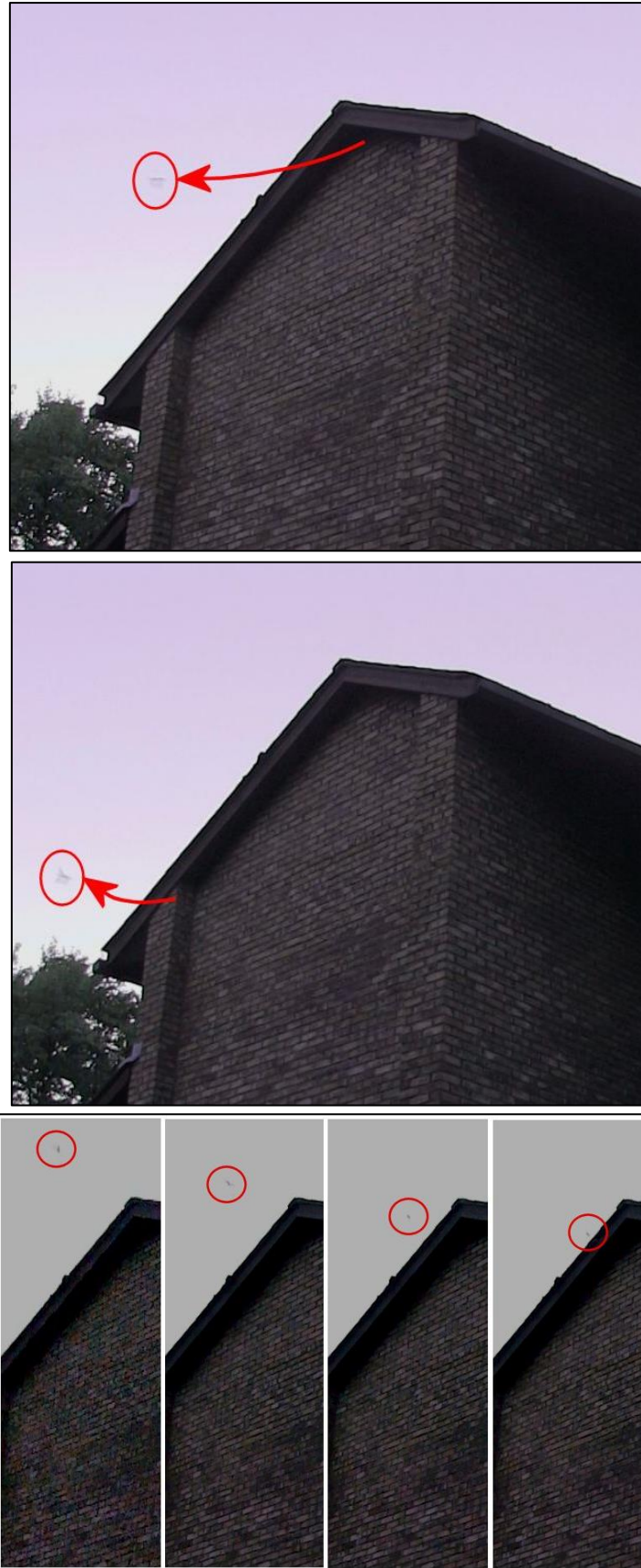
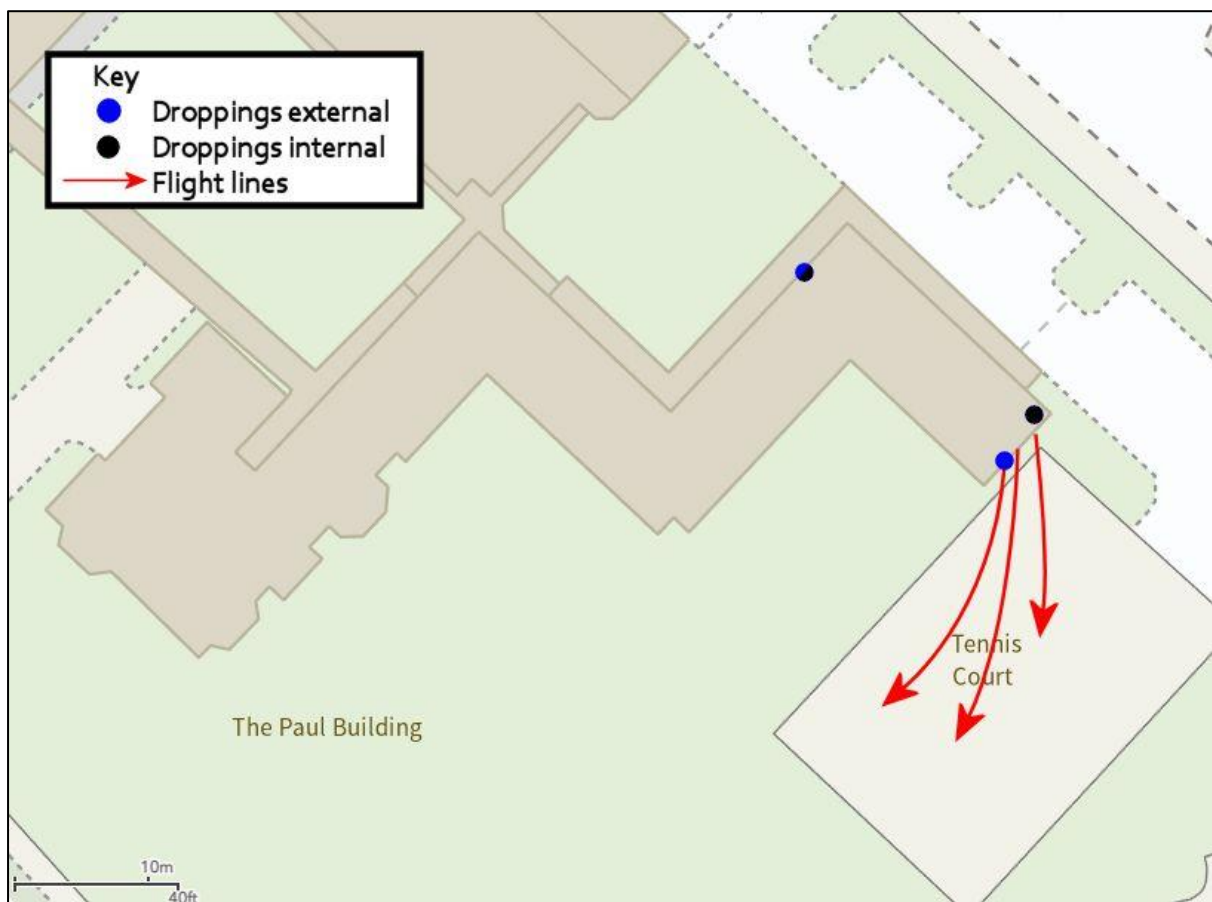


*Plate 22: Three common pipistrelles were seen to emerge from the south-eastern gable end of Ewings during 2022.*

### Dusk Emergence Survey #3 29/09/22.

- 3.3.8 A final dusk activity survey was undertaken on the 29<sup>th</sup> September 2022 starting at 18:35 and only again only one species was recorded at low levels of bat activity - common pipistrelle.
- 3.3.9 At 19:00 2 two common pipistrelle were observed exiting the verges on Ewings Hall and at 19:08 a third common pipistrelle was recorded leaving the verges; all bats were seen foraging briefly above the tennis courts before flying away to the west. The findings were identical to the roost locations seen during the previous survey in August 2022.
- 3.3.10 **As with the first survey in 2002, three common pipistrelle were seen to emerge from the verges of the southeast facing gable end of Ewings Hall (See Plan 5). No bats were roosting at Graham Hall.**



Plan 5: The location of the bat roosts on Ewings.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

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- 4.1.1 Simply Ecology Limited was commissioned by The University of Manchester to undertake a bat building inspection and bat activity surveys of the Graham and Ewings Halls of Residence, Anson Road, Victoria Park, Manchester, M14 5BZ. It is understood that the development will involve the repairs and refurbishments to the Halls of Residence.

### 4.2 Bats

- 4.2.1 The scoping survey revealed that the residences had numerous possible bat access points, leading into potential roost features: in the verges on the gable ends, between/underneath ridge tiles and within the soffits around the roof structure. In addition, bat droppings were identified externally and internally. Following these findings, night-time bat surveys were carried out in 2018 and 2022. Exceedingly low levels of activity was recorded on site in both years. This was not surprising given the urban, city location of the Halls. No bat roosts were found in 2018. However, in 2022, the two emergence surveys confirmed that 3x individual common pipistrelles was observed exiting the verges on the southern aspect of Ewings Hall.
- 4.2.2 The ground level inspection confirmed that trees on site which may be impacted by the proposed works had no roosting potential for bats.
- 4.2.3 Subsequent night-time activity survey confirmed that 3x common pipistrelle (*Pipistrellus pipistrellus*) were roosting in the verges of the southeast facing gable of Ewings Halls of Residence. No bat activity or bat roosting was found in Graham Hall during 2018 or 2022. It was concluded that no bats were roosting in Graham.
- 4.2.4 It is anticipated that the proposed works will result in the loss of the existing roosts and have the potential to result in harm to protected bat species. Therefore, a key recommendation prior to works commencing is as follows:
- **It is recommended that a Natural England licence will be necessary in this instance as there will be a small impact upon a known bat day roosts in the Ewings Halls of Residence.** Appropriate working methods and mitigation will be necessary and these are detailed in section 5: Mitigation and Compensation below). It is **ESSENTIAL** that the client understands the obligations placed upon them to only carry out these works **AFTER** planning permission has been granted and **WORKING JOINTLY WITH THE APPOINTED ECOLOGISTS** once the necessary Natural England licence has been granted. **Reason:** This will deliver compliance with: Section 9 (1 & 4) of The Wildlife & Countryside Act 1981 (as amended), Part 3 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 11 (179 & 180) of the National Planning Policy Framework (2021) and the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and The Environment Act 2021, which are reflected in the Local Plan.
  - **It is recommended that no Natural England licence will be necessary in relation to the proposed refurbishment works taking place at Graham Halls of Residence.** This is because there were no signs of bat activity found within the building during either of the 2018 or 2022 surveys. No impact upon any bat roosts is predicted **Reason:** This will deliver

compliance with: Section 9 (1 & 4) of The Wildlife & Countryside Act 1981 (as amended), Part 3 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 11 (179 & 180) of the National Planning Policy Framework (2021) and the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and The Environment Act 2021, which are reflected in the Local Plan.

### 4.3 Trees

4.3.1 The trees on site have some ecological value and offer nesting opportunities for birds and roosting/commuting opportunities for bats; in 2017 these trees were identified as BS 5837 Category B trees (moderate quality and value, in such a condition as to make a significant contribution of 20+ years) in an arboricultural survey by Indigo Surveys Ltd. It is understood that some of these trees alongside Graham are to be moved to reduce the risk that they pose to the adjacent building. All trees were assessed for their potential to support roosting bats and classed as 3 (Negligible potential to support bats).

- **It is recommended that retention of the trees around the site should be attempted in order to retain the habitat value for wildlife and to ensure that the development of the site will have no detrimental impact upon the site's overall biodiversity value.** Any trees to be felled should be replaced with new saplings in the ratio 3:1 with locally native deciduous species from ash, silver birch, pedunculate oak or rowan. **Reason:** This will ensure compliance with the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and The Environment Act 2021, which are reflected in the Local Plan.
- **It is recommended that, during construction, all trees that are being retained within the development should be subject to protection measures for the duration of the works.** Fencing to protect the trees and root protection zones should be installed in accordance with BS5837: 2012 'Guide for Trees in Relation to Construction Recommendations'. It will be particularly important to ensure that the mature trees on the boundary of the site are adequately protected from any excavations or accidental damage. **Reason:** This will ensure that trees are not accidentally damaged or destroyed.

### 4.4 Breeding Birds

4.4.1 The mature trees around the site have some potential to be used for nesting during the bird breeding season. As such, the following is recommended:

- **It is recommended that tree felling should be carried out outside of the bird breeding season.** Where this is not possible, the Appointed Ecologist must carry out a check to confirm the absence of nesting birds immediately prior to works commencing. If a bird nest in current use is discovered, then an appropriate buffer zone around the nest should be created where clearance works can only continue after the nest is vacated. **Reason:** This will ensure that no offences are committed under The Wildlife and Countryside Act 1981 (as amended). The bird-nesting season is generally regarded to extend between March and August inclusive.

## 5.0 BAT MITIGATION AND COMPENSATION

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- 5.1.1 The proposed development at the site will result in the loss of 3x bat roosts for single common pipistrelles. Therefore, mitigation measures will be required to address associated impacts. It is recommended that the implementation of the mitigation strategy detailed below should enable the planning application to be determined without having a detrimental impact upon bats.
- 5.1.2 The bat mitigation strategy for this site has been designed to meet the test of there being no adverse effect on the favourable conservation status of the bat population affected by the proposed work. National Planning Policy and legislation requires that mitigation addresses the impacts picked up by the site assessment, as follows:
- Quantitative characteristics: There should be no net loss of roost sites, and in fact where significant impacts are predicted there will be an expectation that compensation will provide an enhanced resource compared with that to be lost. The reasoning behind this concept is that the acceptability of newly created roosts by bats is not predictable.
  - Qualitative characteristics: the plans should aim to replace like with like. As an extreme example, it would be unacceptable to replace maternity roosts with hibernation sites.
  - Functional characteristics: compensation should aim to ensure that the affected bat population can function as before. This may require attention to the environment around the roost.
- 5.1.3 As it is an offence to destroy or disturb a bat roost it is advised that this work must take place under the terms of a derogation licence issued by Natural England and the mitigation measures to provide alternative roosting sites to replace those destroyed and **MUST** be implemented to ensure legal compliance.
- 5.1.4 The mitigation measures recommended to the client are as follows:
- The development proposals involve the repairs and refurbishments to the Halls of Residence. This would result in the loss of small common pipistrelle day roosts. Therefore, mitigation measures will be required to address associated impacts. Mitigation and compensation strategies are laid out below to enable the planning application to be determined without having a detrimental impact upon bats.

### 5.2 In-situ retention of roosts

- 5.2.1 Whilst the building is not being demolished, the works should be undertaken in a manner which will allow bats to continue gaining access to the existing roost in the verges. Roost retention should be possible at this building as roofing repairs and refurbishments will only require temporary removal of the roof prior to re-instatement. It is anticipated that the works will result in the loss of the existing roost. It is therefore concluded that no retention of the roost is possible (see section 5.7 Compensation/New roost provision).

### 5.3 Impacts on existing roosts

- 5.3.1 Without mitigation, the refurbishment is likely to result in loss of day roosts for 3 individual pipistrelle bats, which would result in loss of low status roosts. This would have a detrimental impact upon small numbers of a common and widespread bat species that would be relevant at the Site level.

### 5.4 Mitigation - Planned timing of works

- 5.4.1 Due to the low status of the roosts and the small numbers of bats, the works should take place between October and March (inclusive). The building has no hibernation potential. This would be during the period when bats are least active and are not anticipated to be present in the building, but careful working methods will be needed to avoid any direct harm. No capture or direct disturbance of bats will take place at this site. Instead the careful method of the works will ensure that direct impacts upon bats will be avoided; this would involve soft stripping around the area of the know roost sites in the verges.
- 5.4.2 If works cannot be undertaken during the hibernation period and are scheduled for the active season (April – September inclusive) the roost entrances will require exclusion devices before soft-stripping occurs.

### 5.5 Mitigation – Exclusion

- 5.5.1 Due to the nature of the day roost within the verges, the exclusion of the bat prior to works commencing should provide the first level of mitigation. Exclusion of the bat from the roost location will be required; prior to works being carried out on a given area of the building. This will comprise the following elements:
- A tool-box talk will be delivered to the contractors by the ecologist for this project, so any queries can be fully answered prior to the commencement of work on areas where bats are and could be roosting.
  - No capture of bats is likely to be necessary at this site. Good information on the presence of roosting bats and activity patterns was gathered during the night time surveys. We consider it possible to exclude bats entirely from the working area due to the discrete locations where the bat roost was observed and the simple nature of the roost entrances.
  - The licensed ecology personnel will undertake a programme of excluding any bats from the roosts to be affected (see Plates 15 & 16). 3 x common pipistrelle bats were seen emerging from the roost.
  - Exclusion will consist of using a small and light weight one-way plastic bag type exclusion device, pinned over the roost entrance as detailed in the Bat Workers Manual Page 89 JNCC, 2004 (see Figure 1).

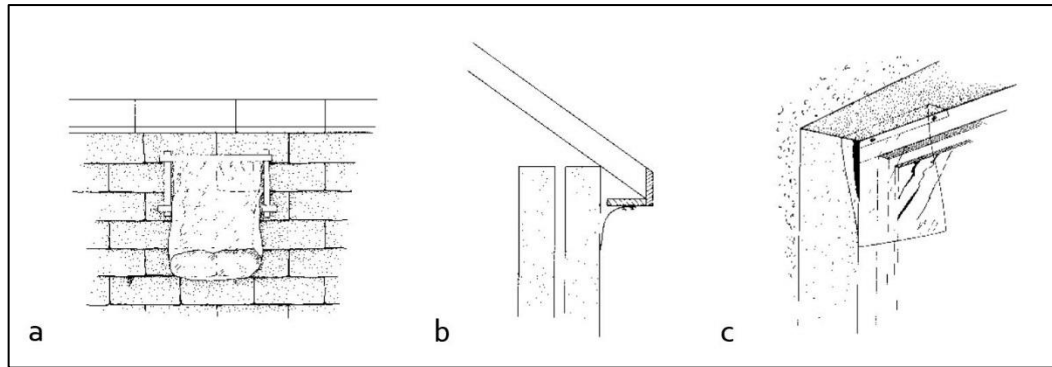


Figure 1: Exclusion methods (From Bat Workers Manual, 2004)

- 5.5.2 The exclusion apparatus will be left in situ for a minimum of 7 nights of suitable weather conditions (night temperatures above 6°C).
- 5.5.3 Since the bat will have been effectively excluded, any remaining will have been able to move to the newly installed bat box or to roosts off-site. Therefore, with this effective strategy in place, any roof stripping can take place without having a detrimental impact on local bat populations.

## 5.6 Mitigation – Soft Stripping

- 5.6.1 Once the alternative semi-permanent roosts are in place (see 5.7.1), a soft strip of the roof and works in the verges MUST take place in the presence of the licensed bat surveyor. The licensed bat surveyor (or Accredited Agent) will remain on site as the works takes place and for the duration of the period that the roosting area is exposed. In the unlikely event that bats are found during work, then bats will be removed by hand by the licensed bat surveyor (or Accredited Agent) and kept in a suitably secure box until they can be relocated by hand into the newly installed roosts.
- 5.6.2 If bats are found elsewhere during the course of the remaining works, all work will stop and the ecological consultant for this project Jason Reynolds Tel: 07754 538437 will be informed prior to work re-commencing. Bats may be removed from high risk areas by hand, kept in a secure cardboard box with coverings in a quiet area of the site then released at the site on a warm night.
- 5.6.3 Any injured/sick bats that need treatment for will be delivered to a well-known bat carer, Gail Armstrong, 1 Bottoms Lane, Silverdale, Carnforth, Lancashire. Gail has several bats in her care at any one time and regularly deals with sick and injured bats. Any bats found which are sick and or injured and it is judged that they need external care will be assessed on site and if necessary taken to Gail Armstrong for treatment. The risk of sick or injured bats being found at the site is however considered to be negligible.
- 5.6.4 A tool-box talk will be delivered to the contractors by the ecologist for this project, so any queries can be fully answered prior to the commencement of work on areas where bats could be roosting.

## 5.7 Compensation/New roost provision – a strategy for the short and long term

5.7.1 Given that small day roosts may be lost, it is essential that compensation should be provided to ensure no short or long term negative impacts occur. New semi-permanent and permanent roosts should be introduced to the site to ensure the site continues to have ongoing value for roosting bats. This will comprise the following:

- Prior to any works commencing on site, a new semi-permanent roost should be introduced on site. This will ensure that alternative roosting is available at the site prior to roost disturbance and reduce any low impacts during the period of time that the works are taking place. This should be in the form of 1 bat box (e.g. see Plate 23), to be placed in a mature tree nearby. This should be placed high (ideally 4m above ground if possible) and facing either south or south west.



Plate 23: 1 x tree or wall mounted bat box must be installed prior to commencement of work.

- The new permanent roost must be in place prior to the new building being occupied.
- Wherever possible, the permanent roost should be returned to a state that closely resembles that prior to the development initiation. Pipistrelles are crevice dwelling bats and as such the new roosting provision should suit their needs. This can come in a variety of forms, such as: crevices underneath lifted slates or ridge tiles; gaps within verges or underneath soffits; gaps that allow access to the tops or within walls; purpose installed designed bat boxes (such as Schwegler 2FR bat boxes).
- The new permanent bat roost must be created as part of the development and must be in place prior to the new building being occupied. Pipistrelles are crevice dwelling bats and as such the new roosting provision should suit their needs. In this particular case, we

suggest creating a new crevice within the verges. The crevice should be created in the mortar; a timber batten or similar should be put in place during the works so that a clear gap is retained. The batten needs to be approx. 2-3cm wide and 5-10cm wide. **The crevice must be no larger than this, otherwise birds will use it for nesting.** This will create crevice access point that is suitable for bat roost access all the way through to the bat brick.

- Once mortaring work is finished, remove the temporary batten. The bat roost is complete (See Plate 24).



*Plate 24: Example of an existing bat roost entrance (2cm by 5cm crevice).*

## 5.8 A notice for contractors

5.8.1 In order to cover any residual risk that bats could be present, the following precautionary actions are advised:

- The contractors should be observant during the work for bats. Bats are opportunistic and may make use of gaps opened up during the work.
- In the event that any bats are found during the remainder of the works, the client (and any sub-contractor) is reminded of their protected legal status. All works must cease immediately until advice on how to proceed has been sought from the Appointed Ecologist.

- If it is absolutely necessary to remove a bat to avoid it being harmed, gloves should be worn. It should be carefully caught in a cardboard box and kept in the dark in a quiet place until it can be released at dusk near to where it was found, or moved to an undisturbed part of the building, with outside access, and placed in a location safe from predators. **THIS MUST ONLY BE DONE FOR WELFARE CIRCUMSTANCES.** The legal protection afforded to bats does not make this an admissible way to destroy a bat roost. The Appointed Ecologist will advise on steps necessary to ensure legal compliance and working under license if a bat roost is found.

## 5.9 Post development site maintenance and management

- 5.9.1 Any bat roost locations provided shall not be altered or destroyed without the appropriate statutory mechanisms being followed. Maintenance will not be required as the purpose-built compensation measures stated above are designed for the long term.
- 5.9.2 The site will remain in the management control of the University of Manchester who will be responsible for site management.

## 5.10 Population monitoring

- 5.10.1 Due to the small number of bats and the limited impact predicted, in line with Natural England Guidelines, no monitoring is planned.

## 5.11 Mechanism for ensuring site safeguard of mitigation/compensation and post-development management and monitoring works

- 5.11.1 On the basis of survey information, specialist knowledge of the species concerned and understanding of the planning and legal system, we consider that there is no requirement for the use of a mechanism to ensure delivery of the recommendations of this report other than that which is already required by statute under a Natural England licence.

## 6.0 REFERENCES

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BAT CONSERVATION TRUST (2016). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (2018) National Planning Policy Framework. HMSO. London

JOINT NATURE CONSERVATION COMMITTEE Mitchell-Jones, A.J. & McLeish, A.P. [Eds.] (2004) *The Bat Workers Manual (3rd edition)*. Joint Nature Conservancy Council, Peterborough.

National Planning Policy Framework 2021:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1004408/NPPF\\_JULY\\_2021.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004408/NPPF_JULY_2021.pdf)

Natural Environment and Rural Communities Act 2006:

[http://www.opsi.gov.uk/acts/acts2006/ukpga\\_20060016\\_en\\_1](http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1)

The Conservation of Habitats and Species Regulations 2017 (as amended):

[https://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksi\\_20171012\\_en.pdf](https://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksi_20171012_en.pdf)

Wildlife and Countryside Act 1981 (as amended):

<http://www.legislation.gov.uk/ukpga/1981/69/contents>

The Environment Act 2021

<https://www.legislation.gov.uk/ukpga/2021/30/contents>

## ANNEX A: STATUTORY AND PLANNING CONTEXT

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A.0.1 The client is advised that many species of British wildlife are legally protected. The following section provides a brief overview of the protection afforded to species commonly encountered during development. The Recommendations at the end of this report will advise as necessary, but it is also useful for the client to have an understanding of the legal protection as this helps to ensure that the law is complied with.

### A.1 Badgers

A.1.1 Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) (WCA), and the Protection of Badgers Act 1992. It is illegal to:

- Kill, injure, take, possess or cruelly ill-treat a badger or to attempt to do so;
- Interfere with a badger sett by damaging or destroying it;
- Obstruct access to or any entrance of a badger sett;
- Disturb a badger when it is occupying a sett

A.1.2 A badger sett is “any structure or place that displays signs indicating current use by a badger”. Natural England, the Government’s statutory nature conservation body, classifies a sett as active if it has been occupied within the last 12 months.

A.1.3 Operations that might cause disturbance of an active sett entrance can be carried out under licence from Natural England. If any badgers are found during the course of the survey, this will be highlighted in this report.

### A.2 Birds

A.2.1 All wild birds are protected against killing or injury under The WCA 1981 (as amended). This protection extends to bird’s nests during the breeding season, which makes it an offence to damage or destroy nests or eggs. Birds that are listed on Schedule 1 of the Act receive additional protection against intentional or reckless disturbance during the breeding season. This makes it an offence to disturb these species at or near to their nesting site.

### A.3 European Protected Species (includes bats, otter, hazel dormouse, great crested newts, and others)

A.3.1 The client is advised that all bats and great crested newts are European Protected Species (EPS). These EPS are protected under European legislation that is implemented in England via The Conservation of Habitats and Species Regulations 2017 (Regulation 43). A full list of EPS is provided in Schedule 2 of the Regulations. In addition, these EPS also receive the protection of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 9 (4)(b & c) and (5).

A.3.2 If both national and international legislation are taken together, the legislative protection afforded to these species makes it an offence to:

- Intentionally/ deliberately kill, disturb, injure or capture them.
- Intentionally or recklessly damage, destroy or obstruct access to any breeding site or resting place.
- Possess or control any live or dead specimen or anything derived from a European Protected Species.

- A.3.3 If an activity is likely to result in any of the above offences, derogation from the legal protection can be issued in the form of a European Protected Species licence issued by Natural England. Licences for development purposes are issued under The Conservation of Habitats and Species Regulations (2017) and only allow what is permitted within the terms and conditions of the licence. If any EPS are found during the course of the survey, this will be highlighted in this report.

#### **A.4 Protected Mammals and Reptiles (includes water vole, red squirrel, reptiles and others)**

- A.4.1 All native reptiles and a variety of British mammals also receive protection under The WCA 1981 (as amended). Schedule 5 of The WCA lists animals that are protected. The degree of protection varies. Water voles and red squirrel are examples of species with full protection. The Act makes it an offence to intentionally kill, injure, take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.
- A.4.2 All native reptiles in the UK are protected. The commoner species such as grass snake, common lizard, slow worm and adder are protected only from unlawful killing and injuring. In practice this may require a reptile protection scheme before implementing a planning permission but no specific licence is required. Sand lizard and smooth snake listed as EPS (see A3.3 above).
- A.4.4 If any protected species are found during the course of the survey, this will be highlighted in this report.

#### **A.5 Non-native invasive species**

- A.5.1 A number of non-native plant species growing wild in the UK are listed on Schedule 9 of the WCA due to their invasive nature and the detrimental impact they can have on native habitats and wildlife. This legislation makes it an offence to plant or otherwise cause to grow in the wild any plant species which is included in Part II of Schedule 9.
- A.5.2 This legislation should be considered during site clearance works which could lead to the spread of Schedule 9 listed plant species from the site if plant material is not properly handled and disposed of. Development proposals should also consider the removal of invasive species from areas of site that would otherwise remain unaffected by works in order to avoid the risk of these invasive plants spreading from the site in the future and enhance habitats within the site. This would in turn free up space for wildlife friendly planting, prioritising use of native species within planting schemes where appropriate.

#### **A.6 Planning Considerations**

- A.6.1 When considering each planning application, the presence of protected species, such as those listed above, is a material consideration which must be fully considered by the Local Authority when granting planning permission. If a licence from Natural England is required, then prior to issuing any planning consent, the local planning authority will need to be satisfied that there is no reason why such a licence would not be issued. Therefore, in reaching the planning decision the local planning authority will need to have regard to the requirements of the Conservation of Habitats and Species Regulations 2017. The three licensing tests given in the Regulations must be considered. In summary, these are that:
1. The development is required for the purpose of:
    - Preserving public health or public safety;

- For other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- For preventing serious damage to property.

2. There is no satisfactory alternative.

3. The proposal will not be detrimental to the maintenance of the population of the species at a favourable conservation status.

A.6.2 All necessary information would need to be provided to the planning authority as part of the planning application in order to address the above tests.

A.6.3 The Natural Environment and Communities Act (NERC Act) 2006 extended the biodiversity duty set out in the Countryside and Rights of Way (CROW) Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. The Duty is set out in Section 40 of the Act, and states that:

"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"

A.6.4 The Duty applies to all local authorities, community, parish and town councils, police, fire and health authorities and utility companies. Section 41 (S41) of this Act (the 'England Biodiversity List') also requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. This list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40(1) of the Act.

A.6.5 Also, Local Authorities must follow the National Planning Policy Framework (NPPF) which provides guidance on the interpretation of the law in relation to wildlife issues and development. For each development proposal considered by the Local Planning Authority the NPPF states that the authority must aim to conserve and enhance biodiversity. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

#### **UK Biodiversity Action Plan (UK BAP)**

A.6.6 The UK BAP, which was first published in 1994, was the UK government response to the 1992 Convention on Biological Diversity. It sets priorities for nationally important 'priority species' and 'priority habitats'. Each species and habitat action plan has costed actions and targets, and is used to inform the compilation of national lists such as the Section 41 List described above.