Thomson environmental consultants

Biodiversity Enhancement Plan

256 Grays Inn Road

For

University College London

Project No.: ALP001-020/001/001/002

October 2022

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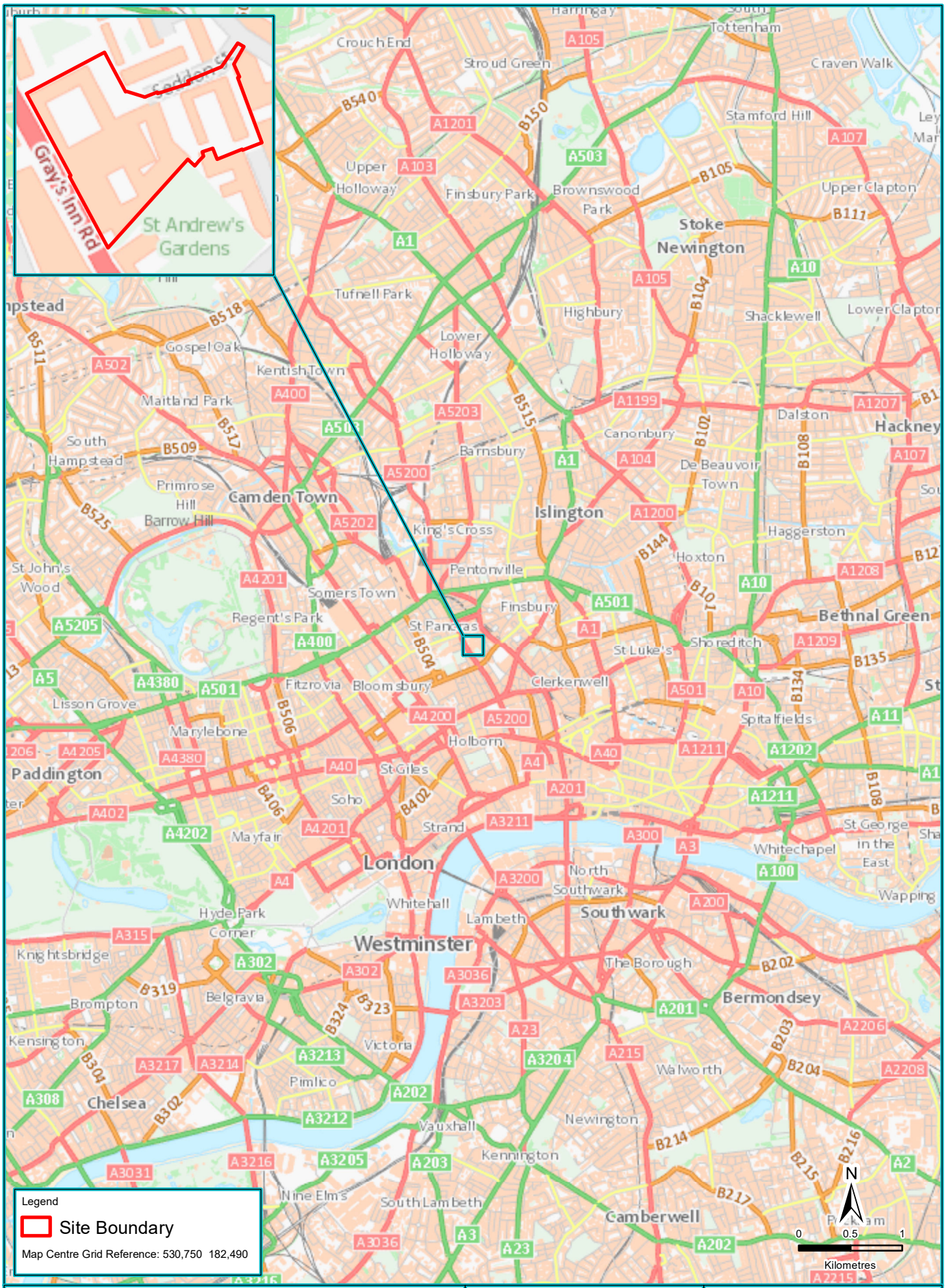
Contents



Client: University College London		Drawing Ref: ALP001-010/400799/1	
Figure Number: 1		Scale at A4: 1:50,000	
Figure Title: Site Location		Drawn: MA	Checked: JB
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Legend

Bird & Bat Box Locations

- Schwegler 2FF
- Schwegler 2FE
- Schwegler 2HW
- Schwegler 1B
- Vivara Pro
- Site Boundary

N

0 10 20

Metres

Map Centre Grid Reference: 530,750 182,491

Drawing Ref
ALP001-020/400800/1

Scale at A3
1:600

Drawn	Checked
MA	JB
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27/10/2022	27/10/2022

Client
University College London

Figure Number
2

Figure Title

Bird Box and Bat Box Location Plan

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1. Introduction

1.1 Development Background

1.1.1 University College London (UCL) proposed refurbishment and redevelopment of 256 Grays Inn Road to deliver a research centre, as well as additional academic floorspace for UCL. The first phase of the proposed development comprises the partial redevelopment of the former Royal Free Hospital (Plot 1) to deliver a world-leading medical research facility to tackle dementia and neurological diseases. The following phases include the redevelopment of the Grade II listed Eastman Dental Clinic (referred to as Plot 2) and the erection of a new building on the Levy Wing site (referred to as Plot 3).

1.1.2 In order to support a reserved matters planning application the following document has been requested to fulfil some of the outline planning conditions:

- A Bird and Bat box plan (Condition 22)

1.2 Ecology Background

1.2.1 A Preliminary Ecological Appraisal (PEA) and a Preliminary Roost Assessment (PRA) were carried out of the development area in April 2018 (Thomson Environmental Consultants, 2019). The PEA found that the site consisted of buildings, hard standing, scattered broadleaved trees, introduced shrub and bare ground.

1.2.2 All trees were assessed to have negligible or low roosting potential for bats and no records of bat emergence were recorded during the bat activity surveys. Common Pipistrelle (*Pipistrellus pipistrellus*) and Nathusius's pipistrelle (*Pipistrellus nathusii)* were recorded during the bat activity surveys on site. In addition to Common Pipistrelle, the desk study also returned presence of Noctule (*Nyctalus noctule)* within 1km of site. The desk study identified 34 protected bird species (Thomson Environmental Consultants, 2019).

1.3 The Brief and Objectives

1.3.1 UCL commissioned Thomson Environmental Consultants on 1st June 2022 to produce a Biodiversity Enhancement Plan (BEP) in line with Condition 22 of Section 106 for the site. The brief was to produce a BEP which includes the following:

- Details of locations and specific type and what species are targeted of both bird and bat boxes to be installed within the development site;

1.3.2 This BEP is based on BEMP-PLI-P1-ZZ-DR-L-94-0103 landscaping layout.

2. Legal and Planning Policy

2.1.1 The following legal and planning policy considerations should be taken into account during subsequent management to ensure compliance with wildlife legislation, based on the sites ecological constraints and key survey findings.

National and Local Planning Policy

2.1.2 Protection for biodiversity and habitats is provided through the National Planning Policy Framework (NPPF) 2019. This is relevant to the Proposed Development, which states (*inter alia*) that to minimise impacts on biodiversity, planning policies should, amongst other targets: *"Promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan."*

2.1.3 The NPPF also states that "*Planning policies and decisions should contribute to and enhance the natural and local environment by*:

- Protecting and enhancing valued landscapes, sites of geological value and soils (in a manner commensurate with their statutory status or identified quality);
- Minimising impacts and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

2.1.4 Section 15 of the NPPF states that "*To protect and enhance biodiversity and geodiversity plans should*:

- *Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- *Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

2.1.5 Additionally, the NPPF states that "*When determining planning applications, local planning authorities should apply the following principles:*

- *If significant harm to biodiversity 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;*

- *Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."*

2.1.6 All developments within the London area are informed by the overall strategy for London, as detailed in the London Plan (Greater London Authority, 2016). Policy 7.19 of the London Plan relates to the protection of biodiversity, and instructs that boroughs should apply "*policies and proposals for the protection of protected/priority species and habitats and the enhancement of their populations and their extent via appropriate BAP targets*". The London Plan is currently applied at a local level in Bloomsbury by The Camden Local Plan (Camden Council, 2017). In addition, the ODPM circular 06/2005 states that the presence of protected species is a material consideration in the planning process.

2.1.7 Planning condition 22 within section 106 of the legal agreement outline planning permission for the development states:

2.1.8 *"Prior to commencement of the superstructure of each building/Plot, a plan showing details of bird and bat box locations and types and indication of species to be accommodated shall be submitted to and approved in writing by the local planning authority."*

2.1.9 *"The boxes shall be installed in accordance with the approved plan prior to the occupation of the relevant building and thereafter retained."*

2.1.10 *"Reason: in order to secure appropriate features to conserve and enhance wildlife habitats and biodiversity measures within the development, in accordance with the requirements of Policy A3 of the Camden Local Plan 2017."*

Bats

2.1.11 All British bat species and their roosts receive full protection under the Conservation of Habitats and Species Regulations 2017 and are afforded some protection under the Wildlife and Countryside Act 1981, as amended. This legislation protects bats from killing, injury, sale and disturbance. Bat roosts themselves (even if bats are not present) are protected from damage, destruction and obstruction. A number of UK bat species are also listed as Species of Principle Importance (SPIs) in England under Section 41 of the NERC Act 2006; noctule are amongst the species listed as SPIs. This places a duty on all government departments to have regard for the conservation of these species and on the Secretary of State to further, or promote others to further, the conservation of these species.

Breeding Birds

2.1.12 All birds, eggs and nests are protected from damage and destruction under the Wildlife and Countryside Act 1981, as amended.

3. Species Mitigation and Enhancement

3.1 Bats

Mitigation

3.1.1 Bats are highly sensitive to light disturbance. In order to limit this disturbance, operational lighting could be controlled throughout the site during development and within the final build so as to avoid potential spillage of artificial lighting onto trees.

3.1.2 The lighting used during both construction and operation will be sympathetic to potential roosting, foraging and commuting bats. This includes;

- Minimising the spread of light onto boundary habitats through the use of hoods and directional louvers;
- Avoid using reflective surfaces under lights;
- Use narrow spectrum light sources;
- Use low intensity bulbs, that emit minimal ultra-violet light;
- Use lights that peak higher than 550 nm; and
- Avoid white and blue wavelengths of the light spectrum to reduce insect attraction. Where white light sources are required they should be of a warm/neutral colour temperature <4,200 kelvin.

3.1.3 Further information for designing the lighting scheme can be found in the Bat Conservation Trust's '*Recommendations to help minimise the impact of artificial lighting*' (BCT, 2014) and the Bat Conservation Trust and Institution of Lighting Professionals '*Guidance Note 08/18: Bats and artificial lighting in the UK*' (BCT & ILP, 2018).

Enhancement

3.1.4 Five bat boxes will be installed on building and roof facades within the development. Indicative locations for bat boxes are shown on Figure 2 and Table 1 below.

3.1.5 To enhance the site for bats, a total of four bat boxes, namely three Schwegler 2FE and one Schweglar 1FF. Suggested locations can be seen on Figure 2.

3.1.6 The Schwegler 2FE and 1FF boxes are made from long-lasting woodcrete. The 2FE box is ideal for smaller bats of pipistrelle and myotis species. The 1FF is larger with an increased internal height and so has been known to accommodate the bigger British bats such as noctule. The locations and types of each box detailed in Table 1 are based on the incidental activity recordings of pipistrelle species from further surveys and both pipistrelle and noctules being identified on the desk study (Thomson Environmental Consultants, 2019). The locations of the bat boxes were chosen to provide the best connectivity to suitable habitat and enough protection from urban light sources. These boxes will be installed post-development once the buildings are complete.

Table 1. Bat box type and location.

Box type	Proposed Location
Schwegler 2FE	Along the eastern wall/roof to the southern end of Plot 2
Schwegler 2FE	Within the Frances Gardner House garden.
Schwegler 2FE	Wall/roof on the southern aspect of Plot 3
Schwegler 1FF	Along the southern wall/roof of Plot 2

3.1.7 Advice on the installation of these bat boxes can be found on the Wildcare website (https://www.wildcare.co.uk/wildlife-nest-boxes/bat-boxes.html).

3.1.8 General recommendations for the positioning of bat boxes are given as follows:

- Boxes should be located close to suitable bat foraging habitat, e.g. near to tree lines that can be used as commuting and foraging routes;
- The flight-path leading from each box should be kept clear (i.e. cut away branches);
- Boxes should be sited to provide shelter from wind, rain and strong sunlight, with an orientation from south-west through south to south-east;
- Placing boxes facing in different directions, through the orientations described above, gives bats a choice of roosting conditions across seasons and times of day;
- Boxes should be placed over 3m from the ground to limit disturbance (some species such as noctule refer boxes around 5m in height). The boxes should be out of reach from potential predators, such as cats;
- Boxes should be placed in a position that is away from any light sources.

3.1.9 Bat boxes should not require any maintenance other than replacement or repair if damaged. Roosting bats are protected from disturbance under UK and EU legislation; therefore, if any boxes need to be repaired or removed this must be done by a licensed bat worker.

3.1.10 In addition to installing bat boxes, it would be useful for nature conservation purposes to monitor the boxes to know whether they are being used by bats, at what time of year and by which species. Since all bats and their roosts are protected by law and it is an offence to deliberately disturb, handle, injure or kill bats, any monitoring of bat boxes must be done by a licensed bat worker.

3.2 Breeding Birds

Enhancement

3.2.1 A total of four bird boxes will be installed on houses on the site. A range of nest boxes are available from the Royal Society for the Protection of Birds (RSPB) (https://shopping.rspb.org.uk/bird-houses-nest-boxes/) and Wildcare (https://www.wildcare.co.uk/wildlife-nest-boxes/bird-boxes.html). It is suggested that a mix of hole-fronted and open-fronted boxes are used to maximise the number of bird species that could use the boxes. Smaller holes will suit species such as tits and wren (*Troglodytes troglodytes*). Open-fronted boxes are favoured by species such as robin (*Erithacus rubecula*) and blackbird (*Turdus merula*). Guides to nest box opening sizes are as follows:

- Schwegler 2HW open-fronted nest box has been designed specifically for species that nest in cavities and prefer a balcony-type entrance, such as black redstart;
- Larger wood or woodcrete boxes such as Vivara Pro starling next box with a larger hole entrance (around 45mm in diameter) suitable for species such as starlings (a SPI listed on Section 41 of the NERC Act 2006); and
- Small wood or woodcrete boxes such as Schwegler 1B bird box – 32mm hole with a small hole entrance (around 25 to 32mm in diameter) suitable for smaller bird species such as blue tit (*Cyanistes caeruleus*) and great tit (*Parus major*), which will readily colonise the native woodland.
- It is recommended that hole-fronted boxes are protected with metal plates to limit predation by grey squirrels (*Sciurus carolinensis*), woodpeckers (*Picidae* spp.) and other larger birds. This may also limit the use of boxes by ring-necked parakeets (*Psittacula 10rameria*).

3.2.2 General recommendations for the positioning of bird boxes are given as follows:

- Boxes should be sited to provide shelter from wind, rain and strong sunlight, with an orientation from north through east to south-east;
- Boxes should be positioned between 5m and 10m from the ground to deter predators;
- Boxes should be placed in areas where disturbance is likely to be minimal, *i.e.* away from public footpaths, and not too close to bird feeders or other boxes (apart from those designed for colonial species); and
- Boxes are best put up between August and February as most birds will not be nesting at this time.

3.2.1 It is recommended that one small hole boxes, one larger hole boxes, and two open fronted nest boxes be used across the site. Indicative locations for the siting of the bird boxes are shown on Figure 2 and Table 2 below. These locations and box types were selected based on the species identified from the previous desk study and which are most likely to use the site (Thomson Environmental Consultants, 2019). These boxes will be installed post-development once the buildings are complete.

Table 2 Bird box type and location.

Box type	Proposed Location
Schwegler 1B bird box – 32mm hole	Within the Frances Gardner House garden.
Vivara Pro starling next box	Along the southern wall/roof of Plot 2
Schwegler 2HW open-fronted nest box	Wall/roof on the southern aspect of Plot 3
Schwegler 2HW open-fronted nest box	

3.2.2 All bird boxes will be cleaned out once a year (if used during the previous nesting season) and put back in place ready for the following nesting season. This can be carried out by any members of staff at the development and is not required to be an ecologist. Hole-fronted boxes should be cleaned out in October. Open-fronted boxes should be cleaned out in late winter (February). Some boxes may be used over-winter as roosting sites for smaller birds, such as wrens, so should be left undisturbed during this time. The boxes should preferably be cleaned with boiling water to kill-off any remaining parasites. Any damaged boxes should be repaired or replaced as necessary. The boxes should then be replaced in their original positions.

4. References

Bat Conservation Trust (BCT) (2014) *Artificial Lighting and Wildlife. Interim Guidance: Recommendations to help minimise the impact of artificial lighting*. Bat Conservation Trust, London, UK.

Bat Conservation Trust (BCT) (2015) *Encouraging bats. A guide for bat-friendly gardening and living*. Bat Conservation Trust, London. Available here: http://www.bats.org.uk/publications_detail.php/231/encouraging_bats.

Bat Conservation Trust (BCT) and Institute of Lighting Professionals (IPL) (2018). *Guidance Note 08/18: Bats and artificial lighting in the UK*. Available online at: https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?mtime=20181113114229 [Accessed on 28 May 2019].

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

Institute of Lighting Professionals (ILP) (2011). *Guidance Notes for the Reduction of Obtrusive Lights.* GN01:2011.

Thomson Environmental Consultants (2019) *256 Grays Inn Road - Preliminary Ecological Appraisal, Bat Roost Inspection Surveys - Buildings and Trees, Dusk Emergence and Dawn Re-Entry Surveys for Bats.* (Report Ref: IVRY101/006/001/001/001)