

Landscape and Ecological Management Plan

19 Charterhouse Street, London EC1N 6RA

Farrview Limited

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Guidelines

This assessment has been designed to meet:

British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application or support the recommendations for further surveys.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited were instructed by Farrview Limited to produce a Landscape and Ecological Management Plan (LEMP) for the proposed development at 19 Charterhouse Street, London EC1N 6RA hereafter referred to as the site).

The site has been subject to previous ecological assessment of relevance to this report, comprising:

Preliminary Ecological Appraisal and Preliminary Roost Assessment (PEA/PRA) (Arbtech Consulting Ltd, 2024).

1.2 Project Description

The development is described as: The proposals include the refurbishment and extension of the building, along with alterations to the facade. A plan showing the proposed development is provided in **Appendix 1**.

1.3 Site Context

The site is centred at National Grid Reference TQ 3153 8167 and covers an area of approximately 0.1 hectares. It consists of one commercial building and is situated at a busy junction in the Farringdon area of London, on the boundary between the London Borough of Camden and the City of London. The site is surrounded on all sides by roads and high-density commercial development. A site location plan is provided in **Appendix 2**.

1.4 Scope of This Report

As detailed within the BREEAM 2014: Refurbishment and Fit-Out Technical Manual (BRE Global Ltd. 2020), in order to achieve the second BREEAM Land Use and Ecology credit under LE05: Long Term Ecology Management and Maintenance, a LEMP must be produced. Guidance detailed under LE05 states:

"A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.1 covering at least the first five years after project completion as a minimum and including:

- 5.a: Actions and responsibilities of relevant individuals prior to handover;
- 5.b: The ecological value and condition of the site at handover and how this is expected to develop and change over time.

- 5.c: Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework
- 5.d: Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts
- 5.e: Clearly defined and allocated roles and responsibilities for delivering the plan."

This LEMP aims to provide an ecological enhancement and management plan focussed on achieving realistic gains in biodiversity as a result of the proposed development. As such, this LEMP aims to fulfil requirements under LE05 as to achieve the second credit in accordance with the BREEAM 2014: Refurbishment and Fit-out technical manual.

2.0 Ecological Baseline Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the previous ecological assessments undertaken at the site, namely the PEA/PRA (Arbtech Consulting Ltd, 2021).

2.1 Habitats Recorded on Site

The site is characterised by one large building. Habitats recorded on site include:

• Developed land; sealed surface - building.

2.2. Value to Protected/Notable Species

The site is located within a highly urbanised area of central London and is encompassed by developed land of very low ecological value. An assessment of the buildings onsite for their suitability to support roosting bats found the buildings to provide **negligible** value in line with current guidelines (Collins 2023). Furthermore, no evidence indicating the presence of nesting birds was recorded; however, the building was assessed to provide limited value to support common nesting bird species. To this end, it is assessed that the site provides very poor ecological opportunities.

2.3 Scope for Enhancement

Although the site is small in extent and there are no significant ecological constraints to development, there remains opportunities to enhance the site for various protected species. John's Garden, Gray's Inn, Charterhouse Square, and Lincoln's Inn Fields are examples of local, formally planted public gardens with mature trees, surrounded by paved streets. The nearest of these is approximately 450m to the west of the site which could provide various opportunities for protected species. As such, the installation of bat and bird boxes within the site may provide enhancement for local species. Gains to biodiversity will also be achieved through the planting of green roof and scattered trees. The addition of a pond would also provide some benefit to the local fauna.

3.0 Ecological Enhancement Plan

3.1. Mitigation

Mitigation prescriptions to reduce adverse impacts to ecological receptors identified through the previous ecological assessment are detailed in **Table 1** below.

Table 1: Mitigation

Mitigation	Specification
Persons Responsible and Lines of Communication	Overview In order to ensure ecological mitigation and enhancement prescriptions are effectively applied during development works, it is required to ensure persons responsible and lines of communication are clearly set out and maintained throughout the proposed development.
	Mitigation A Development Biodiversity Champion will be selected for the construction phase. The Biodiversity Champion will be someone with significant influence during construction, such as the contract or project manager. The Development Biodiversity Champion will be responsible for ensuring all actions outlined in this LEMP are implemented. Any queries with regards to the mitigation and enhancement prescriptions will be addressed to the project ecologist and communication will be retained between the Development Biodiversity Champion and project ecologist throughout the construction phase to ensure the mitigation and enhancement is applied and impacts to ecological receptors are effectively minimised. The project ecologist's contact details are located on the title page of this report. It is recommended that the Biodiversity Champion informs the project ecologist of the commencement of construction works and provides updates where necessary.
	Once the ecological enhancements have been installed, a Post-Development Biodiversity Champion will be allocated who has influence on site once the development is complete, such as the site owner or long-term maintenance contractor. The Post-Development Biodiversity Champion will be responsible for ensuring all recommended management is undertaken and any associated remedial measures are completed where necessary.
Nesting bird check	Overview The roof of the building will be distributed, which may provide birds with nesting opportunities.

Mitigation
The disruption of the roof will be undertaken outside the core breeding bird season, which is typically between March and August
inclusive. If this timeframe cannot be avoided, a close inspection of the vegetation will be undertaken by a suitably qualified ecologist
no more than 24 hours prior to the commencement of work. All active nests will need to be retained until the young have fledged.

3.1 Enhancement

Ecological enhancement of the site is proposed through new habitat creation (open water, green roof and scattered trees) and the provision of species-specific enhancements including bird and bat boxes. Details relating to the installation and subsequent management of new habitats and species-specific enhancement measures are detailed below in **Table 2** and illustrated on the plan in **Appendix 3**.

Table 2: Enhancement

Ecological Enhancement	Specification
Tree and ornamental	Overview:
planting	35no. new trees and ornamental shrubs are proposed to be planted around the site as shown on the landscape plan in Appendix 4 .
	Objectives:
	To plant non-native trees and shrubs that will provide pollinating, foraging, and refuge opportunities for protected and/ or notable species groups including bats, birds, and invertebrates.
	Ensure that good horticultural practice is employed to encourage long-term health and vitality of all trees.
	Ensure well-balanced crowns and/ or natural shape by preventing over competition.
	Creation Method:
	Ground preparation and planting
	All existing hardstanding will need to be broken up and removed off site to expose the underlying base substrate. Each tree and shrub should subsequently be planted within a hole three times as wide of the supplied pot and of a similar depth. Root balls should be soaked thoroughly in water before planting and root balls should be loosened to expose restricted roots before planting. The planted trees and shrubs should then be backfilled ensuring there are no air pockets around roots or any roosts protruding out of the ground. • Timing
	It is best to prepare the land during the summer ready for planting between November and March. Planting trees and shrubs before the new year helps ensure better rooting and subsequent establishment including faster growth during the first growing season.
	Management prescriptions:

Table 2.1: Tree and shrub management prescriptions.

Management	When	Rationale
At the end of each growing season all plant failures are to be 100% replaced	When required; checked annually in Autumn.	To maintain amenity and wildlife value.
If required, provision of stakes and guards. Guards to be left on for a minimum of 5 years	N/A	Protect from damage
Stakes should be checked and any broken or damaged stakes during this time would be removed (as above) and replaced with ties re-fixed	When required; checked annually in Autumn.	Maintain protection
Remove weeds	When required; checked twice annually in early spring and in Autumn.	Reduce competition for resources nutrients etc.by weeds
Application of bark mulch at a depth of 50 mm	Immediately after planting and then when required; checked annually in Autumn.	Reduce competition for resources nutrients etc.by weeds
Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will encourage vigorous grasses and weeds to grow
Apply a light dressing of well-rotted manure	Annually in the winter	Note the overuse of manure fertilisers will encourage vigorous grasses and weeds to grow.
Removal of spent flowers from perennial plants should be removed through 'deadheading'	Twice annually, late spring and in the Autumn.	Allows plants to place more energy into re-growth.
Watering should be undertaken before and after planting out and as	When required; provide more water during periods	Ensures plants do not dry out and subsequently fail.

		necessary for the continued thriving of all planting.	of draught and less water during times of prolonged rain.	
		Check and replace any plant failures	For the first 5 years	To ensure no gaps form.
		once a year		
Intensive Overn Deef and	Ouromaioum			

Intensive Green Roof and Green Wall Creation

Overview:

Green roofs covering and a green wall are proposed to be created through roof-top sedum planting and bronze-copper leaved species for the green wall. A shallow and consistent 150mm substrate depth is proposed. Although a homogenous depth will limit the species and structural diversity of the green roof, should planting be completed at a high density, the green roofs will provide refuge opportunities for invertebrates which will in turn provide foraging opportunities for bats and birds. Furthermore, the green roof will provide additional green infrastructure over a building of negligible ecological value adding greenery to the landscape enhancing commuting opportunities for biodiversity through the urban landscape. While the green wall will extend to the full height of the elevation and 60% of width (approx. 6mx6m).

Installation and management prescriptions:

Installation and management prescriptions vary depending on the intensive roof and green wall product selected and the supplying company. Installation and management prescriptions pertaining to the selected roof product and green wall will be provided by supplying company and should be adhered to in full. However, the following key principals should be adhered to as to ensure the biodiversity value of the intense green roofs and green wall is maximised and achieves the anticipate moderate condition as per the Statutory Metric condition assessment sheets:

- A base substrate depth no less than 80mm will be maintained.
- Planting density should be at a minimum of 12 plants per m². This will ensure a suitable coverage to provide micro-climatic conditions suitable to support increased numbers of invertebrates.
- Access to the green roofs should be prevented other than for maintenance only. This will prevent unnecessary damage and disturbance of plants and any faunal species utilising the habitat.
- Ensure each green roof substrate provides effective water irrigation to limit maintenance requirements and any related disturbance and to prevent waterlogging and associated plant deaths.
- Maintenance visits should include weeding twice annually in early spring and late august to ensure no non-native, invasive species colonise the green roof.

Ornamental Pond (Open Water)

Overview:

An ornamental pond will be created within the site.

Objectives:

• To create an ornamental pond of moderate condition in accordance with the BNG Assessment

Creation Method:

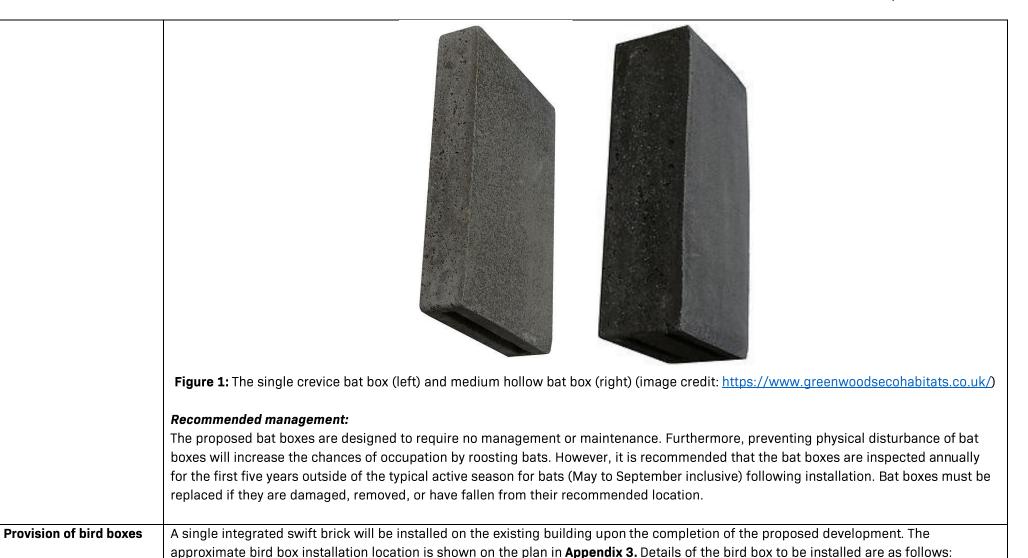
- The ornamental pond will be created within an existing brick lined tail race to the mill
- A pond liner should be used to ensure effective water retention;
- Once constructed, the pond will be filled with water using a clean water source.

Management Prescriptions over a minimum 30-year term:

Table 3.4: Ornamental pond management prescriptions

rubic 6.4. Ornamental pona management prescriptions			
Management	Detail	Rationale	
Undesirable weed growth should be cut back regularly upon the banks and amongst emergent vegetation.	Twice annually in early March/and in Autumn	Encourages establishment of good perennial ground cover and precent colonisation of non-native species.	
Keep approximately 90% of the water surface free of dense macrophyte coverage.	Check annually in Autumn	To prevent significant duckweed and other filamentous algae coverage; amphibians use open water for breeding display.	
Remove plant detritus and litter	Check annually in Autumn	Prevents organic matter and litter building up and preventing exposure to sunlight.	
Remove non-native or other unwanted plants and dispose. Where possible rinse the removed plants and replace water in the pond	Check annually in Autumn	Prevents organic matter building up Puts back wildlife in pond living within the removed plants	
Should the pond freeze over a hole in the ice should be	Check annually in Winter	Allows air breathing wildlife to gain oxygen	

	created Never connect newly installed At all times To prevent allowing the pond to pond to any other water drain artificially and to reduce bodies or install artificial potential for fish colonisation drainage outlets.
	Never introduce frog spawn At all times To prevent the transfer of disease
Provision of bat boxes	 A single bat boxes will be installed onto the existing building upon the completion of the proposed development. The approximate bat box installation location is shown on the plan in Appendix 3. Details of the bat box to be installed are as follows: The recommended bat box will be constructed of woodcrete/ woodstone. Boxes of this construction are known to require minimal maintenance and have a lifespan of 25 years plus. Greenwood's Ecohabitats bat boxes will be utilised (https://www.greenwoodsecohabitats.co.uk/shop). Eco 1No. Single Crevice Bat Boxes and 1no. Medium Hollow Bat Boxes (or similar specification), as shown in Figure 1. These bat box types are suitable to support a wide range of species including Common pipistrelle Pipistrellus pipistrellus, Brown long-eared Plecotus auritis, noctules Nyctalus noctula and soprano pipistrelles Pipistrellus pygmaeus. These species are likely to be present in the local area and represent Species of Principal Importance as listed on Schedule 41 of the NERC Act. The bat boxes will be positioned 3-5m above ground level facing with a clear flight path to and from the entrance, away from artificial light and facing vegetated habitats.



maintenance and have a lifespan of 150 years.

• The recommended bird boxes are constructed of brick/clay. Swift bricks of this construction are known to have minimal

- 1No. Ibstock Swift Eco Habitat will be installed (or similar specification), as shown in **Figure 2.** These bird bricks types are suitable to support Swifts *Apus apus*. This species is likely to be present in the local area and represent Species of Principal Importance as listed on Schedule 41 of the NERC Act.
- The bird bricks will be positioned approximately 3-5m above ground level facing a northern/eastern elevation where they will be sheltered from strong sunlight.



Figure 2: Ibstock Swift Eco Habitat (image found here: https://www.wildcare.co.uk/ibstock-swift-eco-habitat.html)

Recommended Management:

It is recommended that each bird box is inspected annually between December-January for the first five years following completion of the development. Any old nesting material will be removed and the boxes interiors should be cleaned using boiling water, avoiding the use of chemical disinfectants. The boxes will be visually inspected by the Post-Development Biodiversity Champion for signs of damage. The boxes will be replaced if they appear damaged, have been removed, or have fallen from their proposed location. Any maintenance or replacement works required will take place outside of the typical breeding bird season when birds a most likely to use the boxes for nesting, which is between March and September inclusive, i.e. remediation works must take place between October and February where necessary.

Post-development site	A post-development site visit by a Suitably Qualified Ecologist (SQE) will be undertaken to confirm the successful installation of the		
visit by a Suitably biodiversity enhancements and proposed soft landscaping.			
Qualified Ecologist			
A short report will be produced detailing the results of the site visit and any remediation recommendations, if necessary.			

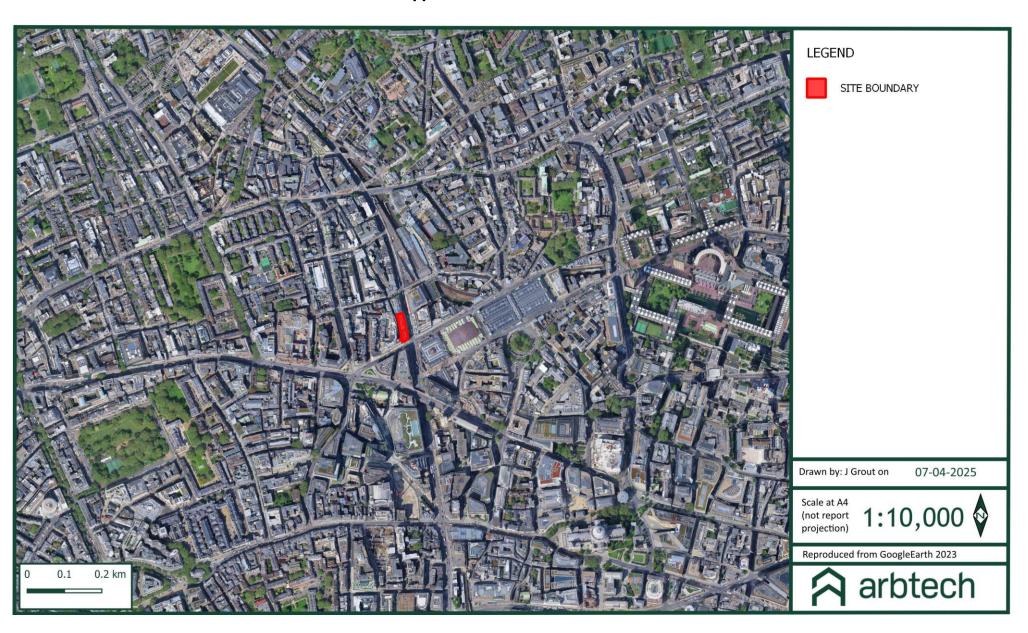
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Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Ecological Enhancement Plan

