



## **Ecology Scoping Survey of 294-295 High Holborn, London**

### **Ecology Report**

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### **Notice to Interested Parties**

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

### **Document Information**

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## **0 EXECUTIVE SUMMARY**

- 0.1 On behalf of CHH London Ltd, Cambridge Ecology Ltd was commissioned, by TP Bennett to carry out an ecology survey and a desk based ecological literature search in relation to development proposals for a site at 294-295 High Holborn, London. The survey was conducted to inform the planning and design process of the associated ecology issues regarding the proposed multi-residential and commercial retail and office redevelopment.
- 0.2 The aim of this survey was to establish the current ecological value of the site at 294-295 High Holborn, including its potential to support protected species and habitats. The information gathered was to provide a basis for the achievement of credits awarded under the current BREEAM Multi-Residential Checklist A6 criteria.
- 0.3 An ecological survey comprising and extended Phase 1 habitat survey was undertaken in accordance with the JNCC guidelines by Darren Frost, a suitably qualified and experienced ecologist as required by BREEAM Multi-Residential Checklist A6 criteria. The survey was undertaken on the 24<sup>th</sup> June 2014.
- 0.4 A desk-based literature search was carried out and data from this an on site extended Phase 1 habitat survey indicated that there were:
- nine bird records, one bat record and one notable plant species of conservation significance within 1km of the site. No protected amphibians, reptiles or mammals were found or considered likely to use the site. Although it was recognised that nesting birds may use the site in the future. These results suggested the site and its vicinity overall had low potential for protected species to be present on the development site.
  - 12 SINC's within 1km of the 294-295 High Holborn site boundary. The closest of these were Lincolns Inn Gardens and Lincolns Inn Fields. The habitat present on the site mainly comprised bare ground with some vegetation and hard standing with no vegetation. None of these habitats were considered to meet UKBAP or local BAP criteria. Overall the area in the vicinity of the 294-295 High Holborn site was considered to be an Area of Deficiency and therefore was considered of low ecological value.
- 0.5 From this study it is considered that the site currently has some very limited potential to support nesting birds.
- 0.6 From the survey results various ecological mitigation and enhancement measures have been recommended. These measures would aim to maintain legal compliance pertaining to wildlife legislation associated with nesting birds and to enhance the biodiversity value of the site and hence

gain credits awarded under the BREEAM Multi-Residential Checklist A6 criteria.

- 0.7 These recommendations have been focused on (i) avoiding constraints relating to nesting birds, (ii) installing nest boxes for birds to breed in the future, (iii) creating areas such as a green roof and planted balconies and (iv) providing species lists of native plants that can be grown to provide benefit to wildlife.
- 0.8 It is considered that the development of this site has some limited potential to enhance the benefit to biodiversity in a managed way. This is provided that the ecological mitigation and enhancement measures described are fully implemented. Therefore, there is the possibility for this development to successfully meet the various criteria set out for BREEAM Multi-Residential Checklist A6 criteria (e.g. credits LE3 to LE6).



## 1 INTRODUCTION

### Background to the study

- 1.1 On behalf of CHH London Ltd, Cambridge Ecology Ltd was commissioned, by TP Bennett to carry out an ecology survey and a desk based ecological literature search in relation to development proposals for a site at 294-295 High Holborn, London. The survey was conducted to inform the planning and design process of the associated ecology issues regarding the proposed multi-residential and commercial retail and office redevelopment.

### Aims and objectives

- 1.2 The aim of this survey was to establish the current ecological value of the site at 294-295 High Holborn, London, including its potential to support protected species and habitats. The information gathered was to provide a basis for the achievement of credits awarded under the current BREEAM Multi-Residential Checklist A6 criteria.
- 1.3 The purpose of the general walkover and Phase 1 habitat survey was to record all the habitats on site according to guidelines produced by JNCC (2004)<sup>1</sup>.
- 1.4 The key objectives of the survey and report were to:
- collate baseline data for the site through field surveys to identify any potential ecological constraints that might require species specific surveys.
  - produce a description of each of the habitats present and provide a list of plant species found.
  - determine whether any species (some of which could be protected) were utilising the site, in particular, bats, amphibians, reptiles and birds.
  - determine the ecological interest of the site in relation to the surrounding area; achieved by using various criteria, such as the presence of protected species, local and UK BAP species and habitats.
- 1.5 The data collected would be used as the basis to:
- determine the ecological value of the site,
  - highlight the potential ecological effects of the proposed development on the current site,
  - describe potential opportunities to enhance the ecological value of the site,

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<sup>1</sup> JNCC (2004) Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit. Revised, reprint 2003.

- maintain any existing ecological features that may be of biodiversity value and
  - describe any other surveys that may be necessary to ensure legal compliance afforded certain protected species under the terms of national statutory instruments such as the Wildlife & Countryside Act 1981 (as amended)
- 1.6 The total number of plant species recorded within different habitats before the development work starts and post development would assist the evaluation of the credits awarded under the BREEAM Multi-Residential Checklist A6 criteria.
- 1.7 The overall aim would be to maintain and enhance the ecological value of the site. This would be achieved through:
- the involvement of ecological advice in the design process
  - the implementation of mitigation and compensatory measures
  - the agreement of the client to comply with future management recommendations.

### **Study area and development proposals**

- 1.8 The study area comprised the whole of the red line boundary of the proposed development site which was located at 294-295 High Holborn, London. The size of the development footprint is approximately 290 m<sup>2</sup>. Figure 1.1 shows the current site layout.
- 1.9 The site comprised an open space that was once occupied by a multi-storey building, which had since been completely demolished. The only features of the building that remained were five small basement rooms, below ground level, with an open stair well still present to gain access. At ground level the concrete floor was still present over most of the site.
- 1.10 The site was approximately 35m long by 8m wide. The site was orientated north to south. The size of the development footprint is approximately 280 m<sup>2</sup>.
- 1.11 Photographs 1-10 provide a view of the character, shape and layout of the site and the proximity of other buildings and land.
- 1.12 The site was bordered to the north by the High Holborn road and to the south by Lincolns Inn Gardens. To the east and west of the site were two multi-storey buildings.
- 1.13 The nearest area potentially of wildlife friendly habitat, was Lincolns Inn Gardens situated on the southern boundary of the site, separated by a high (approximately 3m) comprising scattered trees, bare artificial habitat, planted shrubbery and amenity grassland. This area was approximately 1.2ha in size.

- 1.14 The new development would lie within the same footprint of the former building (Figure 1.1).
- 1.15 The proposed layout of the new development (shown in Figure 1.2) would comprise a new retail, office and residential dwelling. The retail activity would be located on the ground floor, the offices would be located on the first and second floor, and the residential facilities would be located on the third to eighth floor. The basement and roof would be used for retail storage and building plant/infra-structure.
- 1.16 There would limited opportunity for landscaping on the site, as the new building footprint would take account of all the space available. However there is a commitment to introduce a green roof and native planting on parts of the balconies on the 3rd to 7th floors. The area available for native planting would be approximately 71m<sup>2</sup>.

### Relevant Legislation and Policy

- 1.17 Relevant legislation and policies relating to the proposed development and the remit of this survey are listed below and outlined in more detail in the proceeding tables, divided into protected habitats and species.
- The Conservation (Natural Habitats & Conservation.) (Amendments) Regulations 2010;
  - Natural Environment and Rural Communities (NERC) Act 2006;
  - The Wildlife and Countryside Act 1981 (as amended);
  - National Planning Policy Framework 2012;
  - The UK and Cambridge and Peterborough Biodiversity Action Plan;
  - Government Circular (ODPM 06/2005) Biodiversity and Geological Conservation - Statutory Obligations & Their Impact Within the Planning System.

### Habitats

- 1.18 A variety of sites are designated in the UK, under various Conventions, Directives and Regulations, for their nature conservation importance and interest. These are statutory designated sites. The general aim of these designations is to conserve and protect ecological resources in addition to raising awareness and understanding of the general public of the ecological value of these sites. Non-statutory sites are afforded some protection through local plans. Table 1.1 outlines the most common statutory and non-statutory designations.

**Table 1.1 Common statutory and non-statutory designations**

Designation	Brief Description
Ramsar Sites	Wetlands of international importance. Ramsar Sites are effectively protected, through the planning system, under the Wildlife and Countryside Act 1981, as amended, and the Countryside and Rights of Way Act 2000 through their notification as SSSIs and through

Designation	Brief Description
	other regulatory systems addressing water, soil and air quality.
Special Protection Areas (SPAs)	SPAs are the most important habitats for rare and migratory birds within the European Union. The Birds Directive, adopted by the UK in 1979, provides for the protection, management and control of all species of naturally occurring wild birds in the European territory of Member States, including the UK. The provisions of the Birds Directive are transposed into English law by the Conservation (Natural Habitats &c) Regulations 1994.
Special Areas of Conservation (SACs)	SACs are sites that are chosen to conserve the natural habitat types and species of wild flora and fauna listed in Annex I and II of the Habitats Directive. They are the best areas to represent the range and variety of habitats and species within the European Union. The provisions of the Habitats Directive were transposed into English law by the Conservation (Natural Habitats &c) Regulations 1994.
National Nature Reserves (NNRs)	NNRs are nationally important areas of wildlife habitat and geological formations in Britain. NNRs are designated and protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended. They receive additional protection under the Countryside and Rights of Way Act 2000. They are managed for the benefit of nature conservation.
Sites of Special Scientific Interest (SSSIs)	SSSIs are nationally important sites for wildlife, geological and geomorphological features in England. They are designated and protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended. They receive additional protection under the Countryside and Rights of Way Act 2000.
Local Nature Reserves (LNRs)	LNRs are similar to NNRs but they apply to the local context. They are sites of value to nature conservation and are designated under the National Parks and Access to the Countryside Act 1949. They are managed for the benefit of nature conservation.
Hedgerows	Hedgerows are a very significant wildlife habitat over large parts of Britain. They provide essential refuge for a great many woodland and farmland plants and animals. Hedgerows are given protection under The Hedgerows Regulations 1997. As a result, since 1 June 1997, it has been against the law to remove most countryside hedgerows (or parts of them) without first notifying the local planning authority.
Ancient Woodland	Ancient woodlands are woodlands that have been established since or before 1600AD. They are non-statutory sites and are not legally

Designation	Brief Description
	protected but they may be afforded some protection in, for example, structure and local plans.
Wildlife Sites	These non-statutory sites are sites designated by a local authority as being of county nature conservation value but may not be notified as SSSIs. These include County Wildlife Sites (CWS).

### **Species**

- 1.19 In addition to habitats, a number of species have now become so rare that they are also afforded protection through international, European and National law. Other species are considered to contribute to our 'quality of life'. Although these species do not benefit from legal protection, they can be material considerations in the planning process. Table 1.2 outlines the key forms of protection afforded to species.
- 1.20 Key pieces of legislation which afford protection to UK species include the CRoW Act, the WCA 1981, The Protection of Badgers Act 1992 and The Conservation of Habitats and Species Regulations 2010 (as amended), herein referred to as the Conservation Regulations. The Conservation Regulations are the main legislative framework for protection of wild animals in the UK. Schedule 1 of the WCA 1981 covers birds; Schedule 5 covers other animals and Schedule 8 covers plants.
- 1.21 Species including bats, Otter and Great Crested Newt are fully protected under Schedule 5 of the WCA 1981 and are also protected under Schedule 2 of the Conservation Regulations. Badgers are protected under their own Act: The Protection of Badgers Act 1992. Activities affecting protected species must usually be conducted under licence obtained from the appropriate body.
- 1.22 The proposed development must be able to show that all reasonable measures have been taken to ensure that protected species are not subject to disturbance. The habitats of all Conservation Regulations Schedule 2 species, WCA 1981 Schedule 1 and some WCA 1981 Schedule 5 species are also protected from disturbance and destruction. Again, all reasonable precautions should be taken to ensure that legal compliance is maintained. The CRoW Act has strengthened enforcement powers and introduced a new offence of "reckless disturbance" that applies to both protected sites and species.

**Table 1.2 Key Protection afforded to Species**

Designation	Brief Description
The Habitats Directive (92/43/EEC)	Annex II of the Directive lists the European protected species that are afforded special protection under this Directive. The provisions of the Habitats Directive were

Designation	Brief Description
	transposed into English law by the Conservation (Natural Habitats &c) Regulations 1994. Schedule 2 of the Regulations lists the European protected species of animals whilst Schedule 4 lists the European protected species of plants.
The Birds Directive Directive 79/409/EEC Directive 2009/147/EC (Birds Directive)	Bird species listed in Annex I of the Directive regularly occur in Britain but are protected under EEC law. Member countries are required to classify as SPAs the most suitable sites for these species and also for all regularly occurring migratory species.
Conservation (Natural Habitats, &c.) Regulations 1994	The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.
The Conservation of Habitats and Species Regulations 2010.	These Regulations (the “Habitats Regulations”) consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 1 (“the 1994 Regulations”). The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.
Wildlife and Countryside Act, 1981, as amended	Bird species listed in Schedule 1, animal species listed in Schedule 5 and plant species listed in Schedule 8 of the WCA 1981, as amended, are protected. The Countryside and Rights of Way Act 2000 has strengthened this legal protection.
Protection of Badgers Act 1992	The legislation concerning Badgers has largely arisen to protect this species against the practice of Badger digging. The Badger is too common to be included in Schedule 5 of the WCA, 1981, as amended.
Convention on Biological Diversity and the Countryside and Rights of Way Act 2000	The CRoW Act, 2000, provides a statutory basis for biodiversity conservation to be undertaken as a matter of policy. The UK Biodiversity Action Plan (BAP) provides the framework for fulfilling the UK’s responsibilities towards the Convention on Biological Diversity. Conservation of biodiversity (the variety of life on earth) is an essential element of sustainable development.
Natural Environment and Rural Communities Act 2006	Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.  The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in

Designation	Brief Description
	<p>implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.</p> <p>In addition this Act created a new integrated agency 'Natural England'– to act as a powerful champion for the natural environment, and formally establish a Commission for Rural Communities. The Act also changes the WCA 1981 to incorporate the protection for nests of certain birds which re-use their nests.</p>

### **Policies**

- 1.23 Under the Natural Environment and Rural Communities Act (2006), "*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*". In order to comply with this 'Biodiversity Duty', planning decisions must ensure that they adequately consider the potential ecological impacts of a proposed development.
- 1.24 National Policy in England on nature conservation is provided by *ODPM Circular 06/2005: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System* (Circular 06/05) and used in conjunction with the National Planning Policy Framework (NPPF).
- 1.25 The National Planning Policy Framework states that "*the planning system should contribute to and enhance the natural and local environment by...minimising impacts on biodiversity and delivering net gains in biodiversity where possible.*"
- 1.26 Paragraph 99 of Government Circular (ODPM 06/2005) Biodiversity and Geological Conservation - Statutory Obligations & Their Impact Within the Planning System states that '*It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted otherwise all relevant material considerations may not have been addressed in making the decision.*'
- 1.27 Natural England has published Standing Advice on protected species and Ancient Woodland. When determining an application for development that is covered by the Standing Advice, Local Planning Authorities must take into account the Standing Advice. The Standing Advice is a material consideration in the determination of applications in the same way as a letter received from Natural England following consultation.
- 1.28 The intention of all nature conservation planning policy is that sites and species of nature conservation concern are to be protected from the impact of development. Where development is allowed which could potentially

harm such sites, mitigation measures aimed to protect, conserve and enhance and benefit species and wildlife are required.

- 1.29 The UK Biodiversity Action Plan (BAP) published in 1994, sets out this Country's response to Article 6 of this Convention. Previously, management and progress was implemented by Species Action Plans (SAPs) and Habitat Action Plans (HAPs). However, a review completed in 2008 concluded that these action plans were best assessed at a country level, whilst still largely being delivered at a local level by Local Biodiversity Action Plans (LBAPs). This is because "priority species whose needs can be fulfilled by general habitat management actions will be the responsibility of country habitat groups. This is to try to ensure that the broad habitat management actions that are taken also consider the needs of priority species and provide suitable conditions for these species across the UK". Under the terms of NERC Act 2006 there are currently 1150 Priority Species 65 Priority Habitats that extend across the UK. They are aimed at specific species and habitats considered to be at risk of damage, decline or extinction.



## 2 METHODS

### Desk-based literature search

- 2.1 A desk-based literature search was undertaken in order to gather existing ecological information at and in close proximity to the survey site. The ecological information obtained included records indicating the presence of protected species and habitat.
- 2.2 Protected species and habitats records more than ten years old (from June 2014) were not considered to be relevant. This is because they would likely be too old to reflect the current situation in the area. Only protected species within 1km of the centre of 294-295 High Holborn, London were considered to be of relevance due the connectivity between 294-295 High Holborn and the nearest wildlife friendly habitats.
- 2.3 The literature search also aimed to identify the presence of protected, designated sites and non- designated sites of wildlife value. Only sites up to a distance of 1km from the centre of 294-295 High Holborn, London, were considered to be of relevance due the connectivity between the site and the wider environment.
- 2.4 The desk-based literature search included searches of other relevant biological databases and a review of the following internet sites:
- Greenspace Information for Inner London (GIGL)
  - Natural England (<http://www.naturalengland.org.uk>);
  - Multi-Agency Geographical Information Coverage (MAGIC) (<http://www.magic.gov.uk>);
  - National Biodiversity Network Database (NBN) (<http://www.searchnbn.net/help/helpIndex.jsp>);
- 2.5 The findings of the desk -based literature search have been reported in Section 3 (Results).

### Extended Phase 1 Habitat survey

- 2.6 The extended Phase 1 habitat survey was undertaken in accordance with the JNCC guidelines by Darren Frost, an experienced ecologist. The survey was based on mapping the distribution and location of habitat types across the site, and noting potential for protected species that could be present within the site. The survey was undertaken on the 24<sup>th</sup> June 2014 during daylight hours.
- 2.7 Below, we have provided confirmation of how the ecologist met the criteria as set out in the credits awarded under the BREEAM Multi-Residential Checklist A6 criteria.

### ***Section A: Contact Details – Ecologist's Details***

*Company Name: Cambridge Ecology Ltd*

*Company Address: 37 Hilton Street, Over, Cambridgeshire, CB24 5 PU*

*Contact Name: Mr Darren Frost*

*Contact Telephone Number: 01954 231239 Mob: 07918 742991*

### **Section B1: Ecologist's Qualifications**

*The survey and report has been completed by Darren Frost who is an experienced ecologist (please see below for details of qualifications and relevant experience). Darren has specialist knowledge of UK protected species: including birds, mammals, reptiles, and amphibians. He has designed and implemented mitigation strategies for their protection. He is also an experienced botanist, in both terrestrial and aquatic environments.*

*Darren is a Full Member of CIEEM and is bound by its Code of Practice, including the requirement to submit annual details and evidence of Continuing Professional Development (CPD). Darren is also a Chartered Environmentalist and Biologist (CEnv and CBiol).*

#### **Darren Frost BSc (Hons) CEnv MCIEEM CBiol MSB**

*Darren has over 20 years ecological and environmental experience gained through a research, academic and consultancy background. Darren has experience in both flora and fauna surveys, with a particular expertise in bird and protected species surveys and habitat assessment. Darren has managed numerous ecological projects and conducted Environmental Impact Assessments. He has undertaken various Ecological Impact Assessments (EclA) on a range of rural, suburban, urban and industrial sites, which have been incorporated within Environmental Statements. He has managed and written ecological management plans and biodiversity strategies for many development sites. He has undertaken all ecological aspects of site development, from initial site surveys, liaison with the Design Team, landscape architects and contractors, to production of the final written Code of Sustainable Homes and BREEAM Ecology Reports.*

- 2.8 The aims of the survey were to:
- provide a record of the vegetation and wildlife habitats present within the proposed development site.
  - determine whether any species (some of which may be protected) were utilising the site, in particular, mammals (such as bats), amphibians, reptiles, and birds.
- 2.9 Each distinct habitat unit within the site was visited by the surveyor and classified in accordance with the habitat codes within the JNCC guidelines.
- 2.10 Maps were annotated in the field with features of species and habitat interest. Phase 1 Target Notes (TN) were assigned as appropriate.

- 2.11 Data collected from the ecology survey was used to determine an ecological baseline for the site. This in turn was used to assess the projects ability to achieve credits awarded under the current BREEAM Multi-Residential credits LE3 to LE6.

### **Site Evaluation**

- 2.12 An initial evaluation of the ecological importance of the site was made by comparing the field survey results against recognised criteria for establishing the presence of valued ecological receptors.
- 2.13 The criteria used to determine the ecological value of the site included the following:
- Species protected as 'European Protected Species' under regulation 41 of the Conservation of Habitats and Species Regulations 2010.
  - Species protected under Schedule 5 and Section 9 of the Wildlife and Countryside Act (1981 as amended).
  - Badgers protected under the Protection of Badgers Act.
  - Nesting birds protected under Section 1 of the Wildlife and Countryside Act.
  - Bird species protected under Schedule 1 of the Wildlife and Countryside Act.
  - Principal species and habitats – as listed on the Natural Environment and Rural Communities Act (NERC 2006).
  - Principal species and habitats – as listed on the Natural Environment and Rural Communities Act (NERC 2006).
  - Birds of Conservation Concern (BoCC) Red List (Easton et. al. 2009).
  - Important habitats – as listed on the UK BAP priority habitats.
  - Important species – as listed on the UK BAP priority species.
  - Important hedgerows – as defined by The Hedgerow Regulations 1997.

### 3 RESULTS

#### Desk-based literature search

- 3.1 The key ecological features associated with the study area fell largely within the following categories:
- Statutory and non-statutory designated sites
  - Protected habitats and species; and
  - Non-protected habitats and species.

- 3.2 This section outlines the baseline data for the site under these broad headings and incorporates the results from the desk-based literature search.

#### Habitats

- 3.3 The desk-based research showed that no protected habitats had been recorded within the site boundary. The site was considered to be an Area of Deficiency.
- 3.4 It was recognised that there were BAP habitats present within 1km of the boundary of 294-295 High Holborn, relict wood and rivers.

#### Statutory Designated Sites of Nature Conservation Importance

- 3.5 Statutory sites are those that are legally protected and development within or near them is strictly controlled, such as Sites of Special Scientific Interest (SSSI). There were no statutory designated sites within and adjacent to the boundary of 294-295 High Holborn.

#### Non-Statutory Designated Sites of Nature Conservation Importance

- 3.6 Non-statutory designated sites include Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINC) and other locally designated sites that receive some protection. There were no non-statutory designated site within the site boundary of 294-295 High Holborn.
- 3.7 There were 12 SINC's within 1km of the 294-295 High Holborn site boundary. The closest of these were Lincolns Inn Gardens and Lincolns Inn Fields.
- 3.8 The Lincoln's Inn Garden site is located on the southern boundary of the 294-295 High Holborn site. These gardens comprised scattered trees, bare artificial habitat, planted shrubbery and amenity grassland. This site covers an area of up to 1.2ha. The area is mostly used for outdoor sports activities.
- 3.9 The Lincoln's Inn Fields site is located approximately 100m to the south west of the 294-295 High Holborn site boundary, separated by buildings and a back street. This site is a Grade II listed English Heritage Park/Garden. It is also listed as a site of Borough Importance grade 2.

- 3.10 Lincoln's Inn Fields is the largest of London's squares and is well known for its mature old London Plane trees.
- 3.11 These fields comprised scattered trees, bare artificial habitat, planted shrubbery, amenity grassland and non native hedges. The site covers an area of up to 2.9ha. The area is mostly used for civic activities such as dog walking, horse riding skateboarding and outdoor sports activities.
- 3.12 The trees and shrubs provide nesting sites for common garden birds such as Blackbird, Song Thrush and Blue Tit.

#### Protected Species

- 3.13 The data search did not return any records (within the last 10 years) for any protected or notable species within the site at 294-295 High Holborn. For instance there were no records of bat species or Black Redstart in the vicinity of 294-295 High Holborn.
- 3.14 It was recognised that there were records (within the last 10 years) indicating the presence of protected , notable and BAP species within 1km of the boundary of 294-295 High Holborn. These records included the following nine bird species; Little Egret, Kestrel, Peregrine Falcon, Common Swift, Song Thrush, Mistle Thrush, Hedge Sparrow, Starling and House Sparrow; the following single bat species; Pipistrelle bat sp. and the following single plant species; London Rocket.

#### **Extended Phase 1 Habitat survey**

- 3.15 The survey was completed in June, during the optimal survey period (April to September), it is considered that this would not affect the species scoring. It is therefore considered that the survey conducted collected appropriate and accurate data to enable the ecological value of the site to be determined. The entire site is currently made up of an open space where once was located a multi-storey building. The only remaining signs of the building were five basement rooms and the ground floor concrete and floor coverings. Vegetation was only present was on the part of the site comprising bare ground.

#### Habitats

- 3.16 The habitats recorded during the Phase 1 habitat survey are listed and described below. A comprehensive plant species list presented in Table 3.1.
- Bare-ground
  - Hard Standing
  - Building
  - Scattered Trees (bordering the site boundary)

### **Bare-ground**

- 3.17 There was one area of bare ground located on the site. This area was approximately 5m wide x 20m long and covered an area of approximately 100m<sup>2</sup>.
- 3.18 The ground was comprised of very poor quality soils with lots of small rubble debris and stones. The vegetation cover was very sparse.
- 3.19 The plants in this area were small and at an early stage of regeneration. The bushes showed signs that they had been cut back to ground level, within the previous 12 months.
- 3.20 Butterfly bush (*Buddleia*) was the most common plant species present on the site. However, as these had been cut back to ground level and the regeneration was at an early stage, these and the other plants provided very little opportunity to be used by feeding and sheltering insects and birds.
- 3.21 A list of all the plant species identified in this area is provided in Table 3.1. The plants were considered to be of very limited ecological value.
- 3.22 Photographs 1-6 show the character and location of the bare ground.

### **Hard standing**

- 3.23 Most of the site was covered with hard standing. The hard standing was located across all of the northern and western side of the site. This feature was the only above ground feature to indicate that a building had once stood on this site.
- 3.24 The hard standing was composed mostly of a thick concrete base and remnants of floor tiles.
- 3.25 There were no plant species associated with this habitat.
- 3.26 Photographs 1-6 show the character and location of the hard standing.

### **Building**

- 3.27 Below ground there were five basement rooms accessible by the remaining stair way. The rooms were derelict and full of building rubble and rubbish. These rooms were located at the north of the site near the High Holborn road.
- 3.28 There were no plant species associated with these rooms.
- 3.29 There were no significant or suitable cracks and crevices at the joints of the brick and stone work to provide opportunities for roosting bats.
- 3.30 No signs of breeding birds were found to suggest that they had used any of the rooms to nest.

- 3.31 Photographs 7-10 show the character of the rooms and stairway.

### Scattered Trees

- 3.32 To the rear, on the south side of the 294-295 High Holborn building plot were two London Plane trees. However, these trees were outside the red line boundary of the development site, approximately 10m away and would be expected to be affected significantly by the development proposals.
- 3.33 A separate Arboricultural survey (Reference: P0395-R-002a) was undertaken to address the issues associated with these trees.
- 3.34 The trees were considered to be at least 10m tall and of some ecological value. These trees could provide nesting sites for birds, however they were considered to be of low/negligible suitability for roosting bats.
- 3.35 Table 3.1 lists all botanical species recorded within the site boundary during the ecological survey. The abundance of each has been estimated using the DAFOR scoring system (**D**ominant, **A**bundant, **F**requent, **O**ccasional, **R**are).

**Table 3.1: Plant species list – existing site**

Habitat Type	Species	Abundance
Bare Ground	Ash	Rare (x4)
	Butterfly Bush <i>Buddleia davidii</i>	Frequent
	<i>Cotoneaster</i> sp.	Rare (x2)
	Dandelion <i>Taraxacum officinale</i> .	Occasional
	Forget-me-not sp. <i>Myosotis arvensis</i>	Occasional
	Greater Celandine <i>Chelidonium majus</i>	Occasional
	Red Campion <i>Silene dioica</i>	Occasional
	Rosebay Willowherb <i>Chamerion angustifolium</i>	Occasional
	Sallow sp.	Rare (x1)
	Silver Birch <i>Betula pendula</i>	Rare (x2)
	Spear Thistle <i>Cirsium vulgare</i>	Occasional
	Stinging Nettle <i>Urtica dioica</i>	Occasional
Hard Standing	None	
Building	None	
Scattered Trees	London Plane <i>Platanus x hispanica</i>	Rare (x2)

### Protected Species

### Amphibians and Reptiles

- 3.36 The site as a whole was of no value for amphibian or reptile species due to the lack of waterbodies and limited availability of terrestrial foraging and

hibernating habitat. There were no features or habitat within the site suitable to support populations of breeding amphibians or reptiles.

- 3.37 When taking into consideration the type of features and habitats surrounding the site (urban, roads and residential dwellings) it was considered that amphibians and reptiles would be unlikely to occur within the 294-295 High Holborn area.

### **Birds**

- 3.38 At the time of the survey no birds were observed on or in the vicinity of 294-295 High Holborn. No signs were found to suggest that birds were or had used to site for nesting.
- 3.39 There were no features considered suitable for use by breeding or foraging Black Redstart.
- 3.40 The 294-295 High Holborn site did not have features suitable for supporting roosting birds.
- 3.41 The three London Plane trees outside the southern boundary of the 294-295 High Holborn site had the potential to support nesting birds, although no old nests were found.

### **Mammals**

#### *Bats*

- 3.42 During the survey no evidence of bat roosts was found in the 294-295 High Holborn site.
- 3.43 There was an opening at ground level comprising the stairwell leading to the five basement rooms that could enable bats to gain access to the basement. However there were no signs of bats in any of the five basement rooms. Due to the nature and character of the rooms, they were considered to have negligible suitability to support roosting bats.
- 3.44 There was a small area (~4.1ha) of suitable bat foraging habitat in close proximity (southern boundary) to the 294-295 High Holborn site, comprising the combined areas of Lincoln's Inn Fields and Gardens. However, these areas were isolated, with an absence of a network of habitats that bats could use to commute from the Lincoln's Inn Fields and Gardens to other areas that did contain suitable habitat, further afield.
- 3.45 In addition high levels of visual (light) and noise disturbance would suggest that this site would be of low suitability to foraging bats.
- 3.46 Overall the surrounding urban environment consisting of busy roads; street, building and security lighting were considered to likely deter bats from using the area for roosting, commuting and foraging.



*Other Mammals*

- 3.47 The site as a whole was of negligible value for other protected mammal species, such as Badger, Dormouse, Otter and Water Vole. There was a lack of suitable feeding, breeding and resting habitat, including the lack of waterbodies and availability of terrestrial habitat. No features or habitat within the site suitable to support populations of protected mammal species were present.
- 3.48 Considering the type of features and habitats surrounding the site (urban, roads and residential dwellings) it was considered that protected mammal species would be unlikely to occur within the 294-295 High Holborn area.

## 4 EVALUATION

### Baseline Ecology

- 4.1 There were no significant areas of natural habitat of high biodiversity value within the boundary of the development site. The habitats were considered to be of low/insignificant ecological value.
- 4.2 Data from the desk-based literature search and on site survey indicated that no protected species such as amphibians, reptiles, bats or other protected mammals were present, had been present and were considered unlikely to use the site in its current state in the future.
- 4.3 The survey indicated that there was low potential for the site to support protected species. Therefore, there are few ecological constraints associated with the development proposals for the site
- 4.4 It is however, possible that in the future some birds may use the site to nest, if the development did not proceed for a number of years. This is because the small area of bare ground where some vegetation was present could develop and provide nest sites amongst the shrubs and bushes that would grow over time.
- 4.5 In addition, some of the branches of the London Plant trees that lie outside the site to the south are close to the site boundary. Parts of the tree's branches may need to be pruned to allow construction works to take place (See Arboricultural report for details P0395-R-002a).
- 4.6 Therefore, to take account of these two minor issues, during pre-construction (e.g. vegetation clearance) and construction works some precautions (see recommendations) should be taken to maintain legal compliance.
- 4.7 Legislation pertaining to birds – All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981 (as amended). It is an offence to;
- intentionally kill, injure or take any wild bird;
  - intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
  - intentionally take or destroy the egg of any wild bird.
- 4.8 Of the criteria used to evaluate the importance of the site for biodiversity the following are considered to be relevant to this site:
- Nesting birds protected under Section 1 of the Wildlife and Countryside Act.

The lack of natural habitats and limited potential for protected species listed in the criteria described above, suggested that the development site as a whole is considered to be of low biodiversity value.

## 5 RECOMMENDATIONS

- 5.1 From the survey results various ecological mitigation and enhancement measures have been recommended. These measures would aim to maintain legal compliance pertaining to wildlife legislation and to gain the optimum number of Eco credits awarded under the BREEAM Multi-Residential Checklist A6 criteria.

### *Breeding birds*

- 5.2 To avoid delays to the work programme or contravention of the wildlife legislation pertaining to nesting birds, vegetation clearance works and tree pruning works should either take place outside the birds' breeding season (March-September inclusive) or include measures to ensure breeding birds remain unaffected by the vegetation clearance and tree pruning activities. Under the provision of the Wildlife & Countryside Act 1981 (as amended) all birds' nests, eggs and young are protected while the nest is being built or occupied.
- 5.3 Ideally all vegetation should be cleared before March; vegetation that is cleared after this time should be checked for nesting birds by an experienced ornithologist acting as an ECoW.
- 5.4 Up to thirty bird nest boxes of various designs should be installed in suitable locations agreed by an ecologist / ornithologist. The purpose of these nest boxes would be to enhance the number of suitable breeding sites. The nest boxes would those designed to accommodate Swift, Robin, Starling, Blue Tit and House Sparrow.
- 5.5 The provision of these nest boxes would contribute to the London Biodiversity Action Plan for Swift (a local species of conservation concern) and Starling and House Sparrow, both of which are Red listed nationally as Birds of Conservation Concern.
- 5.6 Examples of the type of nest boxes that should be used on the new development are shown in Figure 5.1.
- 5.7 Native plant species which provide nesting materials and good all year round food supply for common UK garden bird species should be incorporated throughout the planting scheme.

### *Planting*

- 5.8 It is recommended that the ecological value of the new development proposals be improved and enhanced by the planting of native species with a known benefit for wildlife.
- 5.9 The areas available for new and replacement planting on the building would be limited to the balconies on the 3rd to 7th floors and a green roof area on

the top floor (as shown in Figure 5.2). The total area available for native planting would be approximately 71m<sup>2</sup>.

- 5.10 The new building at the 294-295 High Holborn development will be surrounded by similarly tall buildings, but has a north south facing aspect resulting in a partially shaded and partially sunny aspect. Therefore, the planting recommended for the balconies and green roof areas should be focused on plants that thrive in partial shade and sunny conditions. The plants chosen would be expected to provide one or more of the following benefits:
- Provide a food source for birds
  - Provide nest material for birds
  - Provide a nectar source for insects
  - Provide shelter for insects
  - Provide breeding sites for insects and birds
- 5.11 The plant species would include a mixture of the trees, shrubs and herbaceous perennials listed in Table 5.1.
- 5.12 The planting associated with the habitat creation would provide suitable feeding breeding and hibernating opportunities for various wildlife including insects. An insect house such as the type shown in Figure 5.3 would provide additional hibernating features and could be located in parts of the site away from people.
- 5.13 The planting would be expected to provide a colourful species-rich interesting wildlife feature for the 294-295 High Holborn development. The areas planted with the native plants would be expected to be managed to ensure the plant species have the best opportunity to grow and flourish; and therefore provide the ecological enhancement for which they were chosen. The production of a site habitat management plan would detail activities such as periods between pruning etc. This would help ensure the investment made into biodiversity enhancement measures had the best chance of success.
- 5.14 The production of a site habitat management plan and implementation of the habitat creation measures, including nest box installations etc, would be expected to enhance the biodiversity of the site. It would also enable the development of the 294-295 High Holborn development to proceed while maintaining legal compliance pertaining to wildlife legislation.

**Table 5.1 Recommended plant species for the different areas of the development**

Common name	Latin name
<b>Trees and shrub for Planters (4 species)</b>	
Privet	<i>Ligustrum vulgare</i>
Bird Cherry	<i>Prunus padus</i>
Dog Rose	<i>Rosa canina</i>

Common name	Latin name
Butterfly Bush	<i>Buddleia davidii</i>
<b>Balcony Planters (24 species)</b>	
Birdsfoot Trefoil	<i>Lotus corniculatus</i>
Black Knapweed	<i>Centaurea nigra</i>
Black Medick	<i>Medicago lupulina</i>
Common Vetch	<i>Vicia sativa</i>
Meadow Buttercup	<i>Ranunculus acris</i>
Musk Mallow	<i>Malva moschata</i>
Ox-Eye Daisy	<i>Leucanthemum vulgare</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Red Campion	<i>Silene dioica</i>
Self Heal	<i>Prunella vulgaris</i>
White Campion	<i>Silene alba</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Columbine	<i>Aquilegia vulgaris</i>
Figwort	<i>Scrophularia nodosa</i>
Foxglove	<i>Digitalis purpurea</i>
Greater Stitchwort	<i>Stellaria holostea</i>
Hairy St. John's Wort	<i>Hypericum hirsutum</i>
Hedge Bedstraw	<i>Galium mollugo</i>
Hemp Agrimony	<i>Erigeron acer</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Nettle-Leaved Bellflower	<i>Campanula trachelium</i>
Wood Avens	<i>Geum urbanum</i>
Wild Angelica	<i>Angelica sylvestris</i>
Wood Sage	<i>Teucrium scorodonia</i>
<b>Green/Brown Roof areas (29 species)</b>	
Chives	<i>Allium schoenoprasum</i>
Yellow Camomille	<i>Anthemis tinctoria</i>
Michaelmas Daisy	<i>Aster amellus</i>
Black Knapweed	<i>Centaurea nigra</i>
Greater Knapweed	<i>Centaurea scabiosa</i>
Ox-eye Daisy	<i>Chrysanthemum leucanthemum</i>
Carthusian Pink	<i>Dianthus carthusianorum</i>
Maiden Pink	<i>Dianthus deltoides</i>
Lady's Bedstraw	<i>Galium verum</i>
Herb Robert	<i>Geranium robertianum</i>
Orange Hawkweed	<i>Hieracium aurantiacum</i>

Common name	Latin name
Common Toadflax	<i>Linaria vulgaris</i>
Marjoram	<i>Origanum vulgare</i>
Hoary Cinquefoil	<i>Potentilla argentea</i>
Salad Burnet	<i>Sanguisorba minor</i>
Rock Soapwort	<i>Saponaria ocymoides</i>
Common Soapwort	<i>Saponaria officinalis</i>
White Stonecrop	<i>Sedum album</i>
Crooked Yellow Stonecrop	<i>Sedum reflexum</i>
Broad-leaved Thyme	<i>Thymus pulegioides</i>
Breckland Thyme	<i>Thymus serpyllum</i>
Clumping Fescue	<i>Festuca tenuifolia</i>
Sheep Fescue	<i>Festuca ovina vulgaris</i>
Hairy Mellic	<i>Melica ciliata</i>
Rat's-tail Fescue	<i>Vulpia myuros</i>
Meadow Cranes-bill	<i>Geranium pratense</i>
Biting Stonecrop	<i>Sedum acre</i>
Common Rock-rose	<i>Helianthemum nummularium</i>
Wild Thyme	<i>Thymus polytrichus</i>

## 6 KEY POINTS AND FINDINGS

- 6.1 Data from the desk-based literature search indicated that no protected species had been recorded at the 294-295 High Holborn development site. There were nine bird records, one bat record and one notable plant record of species of conservation significance within 1km of the site. These results suggested the site and its vicinity overall had low potential for protected species to be present on the development site at 294-295 High Holborn.
- 6.2 The desk-based literature search indicated that there were 12 SINC's within 1km of the 294-295 High Holborn site boundary. The closest of these were Lincolns Inn Gardens and Lincolns Inn Fields.
- 6.3 The Lincoln's Inn Garden site is located on the southern boundary of the 294-295 High Holborn site. These gardens comprised scattered trees, bare artificial habitat, planted shrubbery and amenity grassland.
- 6.4 The Lincoln's Inn Fields site is located approximately 100m to the south west of the 294-295 High Holborn site boundary, separated by buildings and a back street. These fields comprised scattered trees, bare artificial habitat, planted shrubbery, amenity grassland and non native hedges.
- 6.5 Overall the area in the vicinity of the 294-295 High Holborn site was considered to be an Area of Deficiency and therefore was considered of low/insignificant ecological value.
- 6.6 From the results of the extended Phase 1 habitat survey, there were no significant areas of natural habitat of high biodiversity value present on the development site at 294-295 High Holborn. The habitat present on the site mainly comprised bare ground with some vegetation and hard standing with no vegetation. None of these habitats were considered to meet UKBAP or local BAP criteria. These habitats were considered of low/insignificant ecological value.
- 6.7 It was considered that no protected amphibians, reptiles or mammals were likely to use the site. Although, should the development take a number of years to proceed, it was recognised that there was potential for nesting birds to use the site in the future; particularly in the area where the vegetation has already started to grow and should this vegetation develop fully.
- 6.8 From this study it is considered that the site currently has very limited potential to support nesting birds.
- 6.9 Of the criteria used to evaluate the importance of the site for biodiversity the following are considered to be relevant to this site:
- Nesting birds protected under the Wildlife and Countryside Act.
- 6.10 In order to maintain legal compliance pertaining to wildlife legislation related to nesting birds as small number of mitigation measures have been

recommended. These measures mainly relate to the timing of vegetation and constructions works, aimed at avoiding the period when birds may be nesting at the site in the future.

- 6.11 The opportunity for biodiversity enhancement at this site is considered to be rather limited. However, it is possible that the development of this site has the potential to benefit biodiversity in a managed way. This would be achieved by the provision of bird nest boxes for various species; and where space is available (71m<sup>2</sup>) provide planted areas, on balconies and on a green roof. The production of an ecological management plan would detail the mitigation and enhancement measures and how they would be managed in the long term to ensure they gave the best opportunity for success. Therefore, there is the possibility for this development to successfully meet the various criteria set out in the BREEAM Multi-Residential Checklist A6 criteria (e.g. credits LE3 to LE6).
- 6.12 Table 6.1 lists those measures that have been recommended and are considered 'key' (necessary in order to maintain legal compliance and meet the terms of NPPF) and the 'additional' measures that would provide further biodiversity enhancement.

**Table 6.1 Summary of key and additional biodiversity mitigation and enhancement measures.**

Description of measure	Key Measures and Additional Enhancements.
Timing of vegetation clearance.	Key
Installation of nest boxes of various designs	Key
Installation of insect boxes of various designs	Additional
<b>Wildlife friendly planting scheme</b> using native plants and shrubs:	Key
1. Balcony planting scheme	Key
3. Green Roof	Key
4. Production of a site habitat management plan	Key



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8      FIGURES

Figure 1.1 Site location plan and development site (red line boundary)



Figure 1.2: Indicative plan of the development proposals





tp bennett

PROPOSED 3rd FLOOR

294-295 High Holborn



tp bennett

PROPOSED 4th FLOOR

294-295 High Holborn









**Figure 5 1 Examples of bird next box design for Swift, House Sparrow and Starling etc. that may be used as part of the scheme design.**

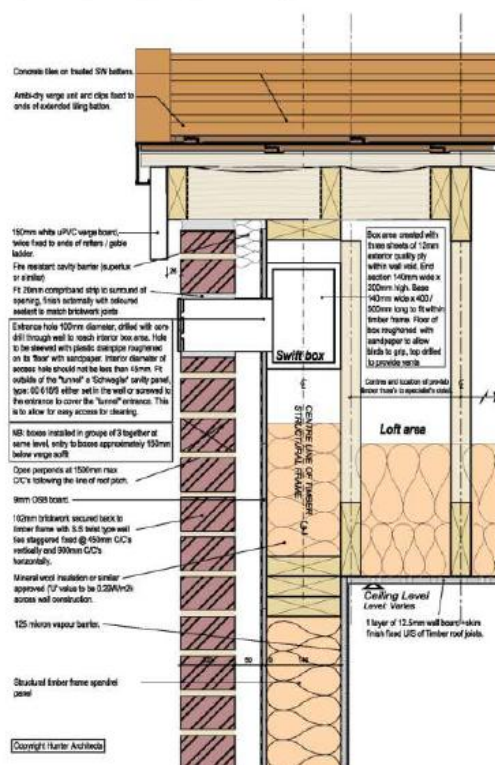




### Double chambered external Swift nest box

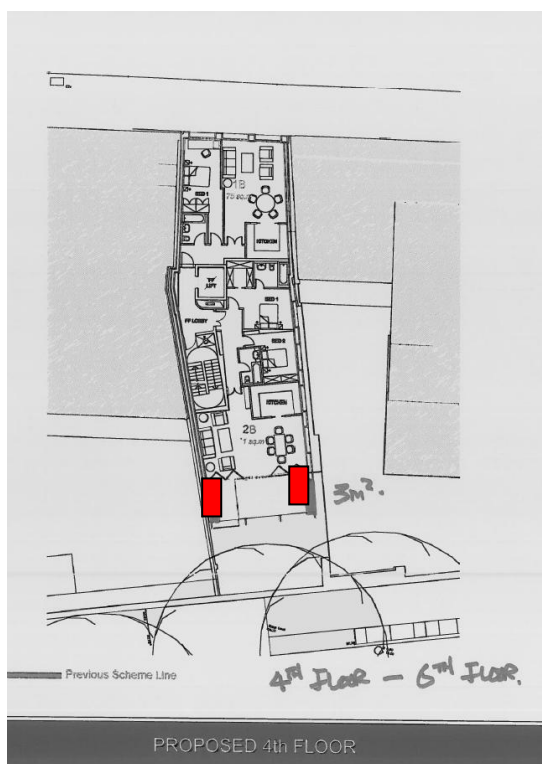
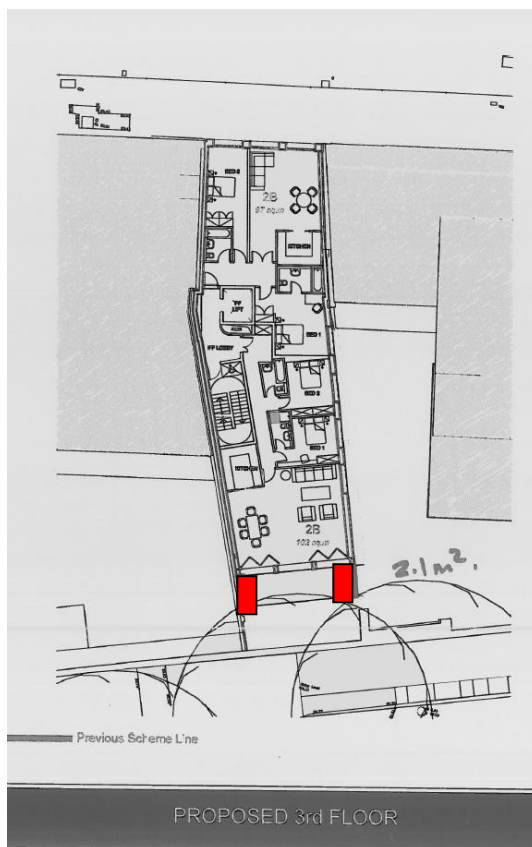
Diagram 1 – Internal swift box details (courtesy of Hunters Architects)

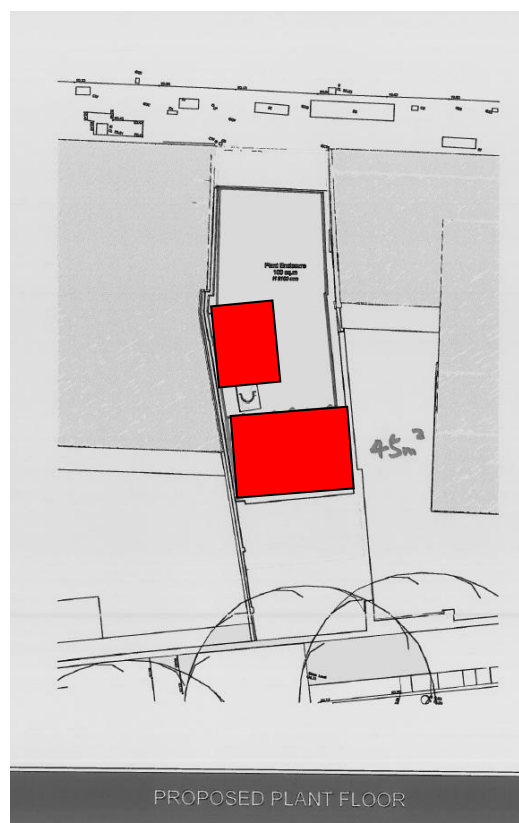
### Swift box detail



**Internal Swift Nest Box**  
(reproduced from Mungovan 2009)

Figure 5.2: Indicative scheme layout showing the location of the Balcony and Green Roof planting areas to be included in the landscaping on the site.







**Figure 5.3: Examples of Insect Houses for use on the new building at 294-295 High Holborn site**





## PHOTOGRAPHS

**Photographs 1: Typical view the 294-295 High Holborn site looking north**



**Photographs 2: Typical view the 294-295 High Holborn site looking south**





**Photographs 3-6: Typical view the ground space left after the building had been demolished**









**Photographs 7-10: Typical view the basement rooms and stair well features remaining from the demolished building**



