



The Honourable Society of Lincoln's Inn

Internal Bat Inspection

July 2015

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Executive Summary

Mott MacDonald was commissioned by The Honourable Society of Lincoln's Inn to undertake detailed internal and external bat inspections as part of the development works on site.

A Preliminary Ecological Appraisal undertaken by Mott MacDonald on 01 April 2015 identified a number of features with bat potential which are due to be demolished and refurbished as part of the scheme. These features are within The Under Treasurer's House, The Great Hall and four London Plane trees.

These structures were subject to a detailed external and internal inspection on 13 July 2015.

Following the inspections one feature was identified as being suitable for roosting bats. Both buildings are very well maintained and there are no entry access points to the loft spaces for bats. No signs of bats were identified during the survey.

Therefore, adverse effects on bats from the proposed works are considered to be extremely unlikely. The lack of roosting features in addition to the factors highlighted in the PEA (such as lighting levels and location in the highly urbanised centre of London) limits the potential for bats to be present. The works, therefore, can go ahead without any need to mitigate for bats.

1 Introduction

1.1 Background

The Honourable Society of Lincoln's Inn seek to refurbish and improve existing kitchen and catering facilities which are currently inadequate for the needs of the Inn. There is also a need to provide expansion space for the existing library alongside new advocacy training and educational facilities to enhance the function of the Inn. In providing these new facilities, the existing Under Treasurer's residence will need be relocated to another part of the Inn.

To achieve the above proposals, planning and listed building consent are sought for five separate applications proposed at Lincoln's Inn:

- Application 1 – Old Hall Kitchen Refurbishment (Submitted to LB Camden Ref 2015/2413/P & 2015/2517/L)
- Application 2 – Great Hall Refurbishment Works (including Old Hall Temporary Kitchen Works)
- Application 3 – East Terrace Development (Excavation to create a two storey basement containing a lecture theatre, advocacy rooms and study areas)
- Application 4 – Library Extension (including demolition of Under Treasurer's House)
- Application 5 – 15 New Square (Change of use from Office B1 to Residential C3)

This Internal Bat Inspection Report has been prepared as part of applications 2, 3 and 4.

Mott MacDonald Ltd was appointed to undertake a Preliminary Ecological Appraisal (PEA) on 01 April 2015. This will form part of the planning application for the proposed development at The Honourable Society of Lincoln's Inn, Newmans Row, London WC2A 3TL at National Grid Reference TQ30948140. The area of site under development plans covers approximately 6,500m². The PEA identified features suitable for bat potential in the Great Hall, The Under Treasurer's House and within four London plane trees. Mott MacDonald Ltd was therefore commissioned to undertake a detailed bat inspection survey.

The proposed development is understood to comprise expansion and some refurbishment works to the Great Hall and Library building. The Great Hall was constructed in 1845 and is Grade II listed. The refurbishment is to provide additional library storage and a new library reading room, along with two levels of office accommodation. This will be approximately 610m², and connected to the existing building. The Under Treasurer's House is to be demolished and re-constructed on the same footprint.

Additionally, development below the east terrace: this is an underground two storey development below the existing east terrace of the Great Hall, providing new education facilities including advocacy training and seminar rooms, a lecture theatre and event and social space. This will be approximately 1,325m², and also connected to the existing building.

The development works will commence in May 2016.

1.2 Scope of Works

The scope of works was to identify whether any bat roosts are present in any areas to be affected by the proposed development. To obtain this information the following activities were carried out:

- External assessment of any buildings to be affected to provide an initial assessment of bat roosting potential;
- Internal inspections of the buildings to be affected;
- Internal inspections of the trees to be affected via tree climbing;
- Make recommendations for any emergence surveys, licensing requirements, or any non-licensable mitigation, compensation and enhancement measures which may be required.

1.3 Legislative and Planning Policy

The construction and operational activities for the proposed works must comply with the European and UK nature conservation legislation and national and local biodiversity policies. The main pieces of UK legislation on nature conservation are the Wildlife and Countryside Act 1981 (as amended); the Conservation of Habitats and Species Regulations 2010 and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

The biodiversity policies which are most relevant are National Planning Policy Framework (Department for Communities and Local Government, 2012), which has recently superseded Planning Policy Statement 9 and the Greater London Biodiversity Action Plan (Local or LBAP).

All bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitat and Species Regulations 2010 (as amended). This means it is illegal to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

2 Methodology

This section outlines the methods used for each stage of the survey process.

2.1 Survey Area

The PEA (Mott MacDonald, 2015) identified two buildings with the potential to support roosting bats which will be affected by the proposed development: The Great Hall The Under Treasurer's House. In addition, four London plane trees were also identified as having low to moderate potential for bats.

These buildings are currently used on a daily basis as offices, library, lecture theatres, meeting rooms and catering facilities. The buildings are surrounded by hard standing car parking, amenity grassland and further buildings. The trees, although not to be removed, are within 10m of the Great Hall and therefore are still at risk of being disturbed if a roost is identified.

2.2 Initial External Assessment

An initial assessment of the buildings' potential to support bats was made by conducting an external inspection to search for features which would give bats access to a suitable roosting cavity or crevice. Binoculars and a high powered torch were used to search for these features including:

- Damaged roofing tiles;
- Gaps behind cladding/barge boards;
- Holes in soffit boards;
- Gaps behind any flashing or roofing;
- Holes in brickwork which may lead into a cavity wall; and,
- Any existing mitigation measures such as bat boxes, bat bricks and bat tiles.

The trees were climbed to gain access to the higher canopy not seen from the ground during the PEA. Full tree climbing equipment was used in addition to an endoscope and high powered torch to assess the following features;

- Natural/woodpecker holes;
- Cracks/splits in major limbs;
- Loose bark;
- Hollows/cavities; and,

Each identified feature was described and photographed (Appendix A).

The initial assessment allows the buildings to be categorised as having negligible/low/moderate or high roosting potential (developed with reference to Bat Surveys Good Practice Guidelines (Hundt, 2012), and the Bat Mitigation Guidelines, 2004), see Table 2.1 below.

This assessment was undertaken by one ecologist, (Natural England Class 2 licence holder (CLS01450)), and one arboriculturalist on 13 July 2015.

Table 2.1: Categories of roost assessment

Bat Roost potential	Description
Negligible	An inspected building which is considered to have no features of importance for roosting bats.
Low	From the ground, the building appears to have superficial features (e.g. cracks and crevices) that are sub-optimal for roosting bats but may be used in some circumstances. Surrounding habitat appears to provide little or no foraging potential and/or connectivity to further suitable habitats.
Moderate	A building in which no evidence of bats has been found, but a small number of features have been identified that could support roosting bats (such as cracks, crevices and/or structural features). Surrounding habitat provides good foraging potential and/or connectivity to further suitable habitat.
High	A building in which no evidence of bats has been found, but a larger number of features have been identified that could support roosting bats (such as cracks, crevices and/or structural features). Surrounding habitat provides excellent foraging potential and/or connectivity to further suitable habitat.
Confirmed	Bats or evidence of bats recorded within the building, including both current and/or historic roosts.

2.3 Detailed Internal Inspection

Following the initial assessment the buildings and trees were inspected internally in more detail to examine the potential of each feature to support bats, determine the presence of any internal cavities (such as roof voids or wall cavities); and where accessible, to search these areas for physical signs of roosting bats. Full tree climbing equipment, a ladder, high powered torch and endoscope were used to search for signs in buildings and trees including:

- Individual bats;
- Droppings and urine staining;
- Feeding remains;
- Scratch marks; and
- Fur staining.

Areas such as window ledges and walls were checked for droppings and feeding remains.

Where possible, features were ruled out from further investigation, for example a crack which appeared suitable at ground level, but was found to be only superficial when inspected in detail and therefore not suitable. Where all these features could not be ruled out, emergence surveys have been recommended.

2.4 Assessment of Conservation Value and Likely Impacts

The conservation value was assessed for the bat population in the context of the survey area and surroundings. This makes reference both to the geographical scale of international, national, regional/county, district/borough, local and 'zone of influence only' (IEEM, 2006).

An assessment was made of the likely impacts of the development on bats. The assessment is based on the IEEM guidelines for Ecological Impact Assessment (IEEM, 2006), using certain, probable, unlikely and extremely unlikely. Additional guidance specific to bats was used in the Bat Mitigation Guidelines (2004), in terms of potential short and long term impacts and temporal and spatial considerations

2.5 Survey Constraints

There are no survey constraints.

3 Results

3.1 Internal Inspection

3.1.1 The Great Hall

During the PEA, the Great Hall was classified as having moderate potential for roosting bats. The detailed internal inspection found that there are no features suitable for bats in the Great Hall.

All areas which were accessible were assessed, including loft spaces and the roof. The lead on the roof to the north of the building was tightly sealed with no potential for bats. The roof of the Great Hall is very well maintained and most of the roof to the west is well lit externally with halogen lighting which reduces the potential for bats. The tower to the north west was very bright internally with no potential for bats. All internal roof spaces that were accessible were inspected. These were dry and dark but there were no visible access points. No signs of bats were seen in any of the areas accessed, such as droppings or urine staining (see photos in Appendix A).

3.1.2 The Under Treasurer's House

During the PEA, The Under Treasurer's House was classified as having low to moderate potential for roosting bats. The detailed internal inspection found that there are no features suitable for bats present in the Under the Treasurer's House.

The loft space was accessed and assessed for the potential to support bats. The loft space was dry with no visible entry points. The roof was well sealed with tight slates. No signs of bats were seen (see photos in Appendix A).

3.1.3 London plane trees

During the PEA, these four trees were classified as having low to moderate potential for roosting bats. The detailed internal inspection has illustrated that there are no features suitable for bats present in the London plane trees.

The trees were inspected in full by using tree climbing equipment and an endoscope. Only one feature was identified on the west of the tree tagged no.975. The feature, a rot hole on the branch, is situated approximately 15m above ground level. This was investigated and found to be dry to about 200mm in length. It had cobwebs over the hole showing no recent signs of use. This is unlikely to be used by bats. The trees were well lit with both up and down lighters fixed to the east side, reducing the potential for bats (see photos in Appendix A).

4 Further Requirements

No suitable features have been identified for roosting bats and it is extremely unlikely that any bats will be affected by the proposed works. There are no further mitigation requirements in relation to the protection of roosting bats.

5 References



- English Nature (2004). Bat Mitigation Guidelines. Accessed online here in July 2015:
http://roost.bats.org.uk/sites/default/files/publications/EnglishNature_BatMitigationGuidelines_2004.pdf
- Hundt, L. (2012) Bat Surveys: Good Practice Guidelines, 2nd Edition, London: Bat Conservation Trust.
- Mott MacDonald. (2015). The Honourable Society of Lincoln's Inn: Preliminary Ecological Appraisal.

Appendices

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Appendix A. Photos

Table A.1: Photos from the Bat inspection including descriptions.

Photo	Description
	<p>PHOTO 1 The roof of the Great Hall with visible halogen lighting.</p>
	<p>PHOTO 2 The roof of the great Hall, very well maintained with no gaps or crevices.</p>

Photo

Description



PHOTO 3

Inside one of the towers of the Great Hall. The tower was very light with no cracks, crevices or suitable roosting features.



PHOTO 4

Views from the top of the Great Hall.

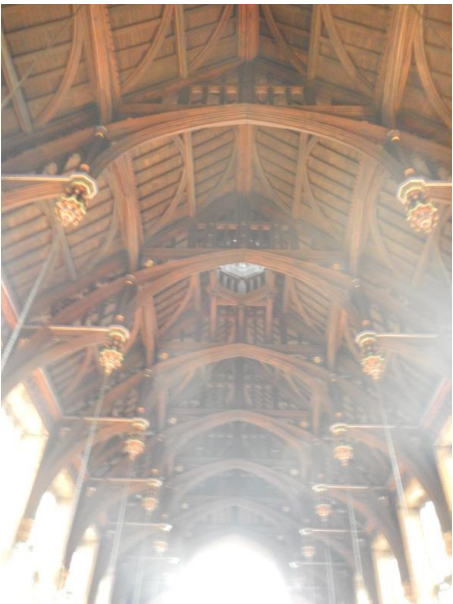



Photo	Description
	<p>PHOTO 5 Inside the Great Hall. No roof space and no access areas for bats to enter.</p>
	<p>PHOTO 6 The roof space in The Under Treasurer's House. Very well maintained with no access points for bat entry. No signs of bats.</p>

Photo	Description
	<p>PHOTO 7 The roof space within The Under Treasurer's House. No signs of bats.</p>
	<p>PHOTO 8 The London Plane trees surrounding the Great Hall. Only one feature which is classified as negligible potential for bats.</p>