

Former Post Office, High Street, Eastleigh, Hampshire, SO50 5TA

Bat Survey Report

September 2020

Hampshire Ecological Services Ltd
Consultant Ecologists

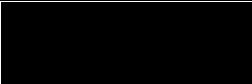
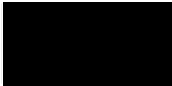
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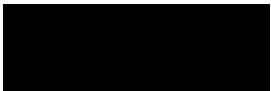
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Bat Survey Report
Former Post Office, High Street, Eastleigh, Hampshire, SO50 5TA
for
Eastleigh Borough Council

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This report represents sound industry practice; reports and recommends correctly, truthfully and objectively; is appropriate given the local site conditions, scope of works proposed and resources allocated to us by the client; and avoids invalid, biased, and exaggerated statements.

The author disclaims any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and the author accepts no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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EXECUTIVE SUMMARY

1. This report provides details of bat surveys, carried out by Hampshire Ecological Services Ltd for Eastleigh Borough Council, in connection with a proposal to redevelop the site at the Former Post Office, High Street, Eastleigh, Hampshire, SO50 5TA (approximate Ordnance Survey Grid Reference SU455189). The location of the site is shown in *Figures 1* and *2* and a plan of the site is shown in *Figure 3* (see *Section 6*).
2. The site consists of a three-storey building, formerly the Post Office, with a single-storey building extending to the rear that has been converted studios (former Sorting Office). The buildings surveyed are shown on the building plan in *Figure 3* in *Section 6*.
3. An internal and external survey of the buildings was carried out by licensed bat ecologist Nicola Pyle BSc MCIEEM, accompanied by Calum Cooper BSc (Hons) GradCIEEM, on the 30th May 2019. Subsequently, one dusk emergence survey was carried out on the 25th of July 2019. All surveyors are experienced in carrying out bat surveys.
4. A further emergence survey was carried out on the 20th August 2020 to provide up to date information on the site.
5. The former Post Office is a three-storey brick building with a pitched and hipped slate roof, and flat-roofed sections. Internally, there are two uncluttered side roof voids in the eaves. The void below the main ridge could not be accessed. Details of potential bat access points are illustrated in *Images 4.3.1.1 – 4.3.1.2*. No bats or evidence of bats was seen. However, due to the presence of suitable roosting features and some foraging and commuting habitat in the immediate vicinity, the building is classed as having **low** bat roost suitability.
6. The former Sorting Office (now studios) is a single-storey brick building with a pitched, hipped slate roof, and flat-roofed sections. There is no roof void as the ceiling is open to the rafters. Exterior features that could be used by bats are illustrated in *Images 4.3.2.1 – 4.3.2.2*. No bats or evidence of bats was seen. Due to the presence of suitable roosting features and some foraging and commuting habitat in the immediate vicinity, the building is classed as having **low** bat roost suitability.
7. Three mature trees at the rear of the site provide some, very limited, bat foraging habitat in the immediate vicinity of the buildings. The park further to the north and mature tree-lines along the surrounding roads provide some foraging habitat near the site. The railway line provides a nearby commuting route to foraging habitat further out from the site.
8. No bats were observed emerging from the buildings during either dusk emergence survey. On the 25th July 2019 common pipistrelles were observed flying in the vicinity of the buildings, indicating the weather was suitable for bat activity during the survey. On the 20th August 2020,

common pipistrelles and noctule bats were observed flying in the vicinity of the buildings, indicating the weather was suitable for bat activity during the survey.

9. Based on the evidence from the internal/ external survey and the emergence surveys, the former Post Office and former Sorting Office are not being used by roosting bats.
10. Given the presence of foraging bats, the site should be enhanced for roosting bats. It is proposed that at least two bat bricks (*e.g.* a Habibat™ Bat Box or an Ibstock Enclosed Bat Box, a Schwegler Bat Tube or similar) are incorporated into the new buildings. The proposed locations are shown in *Figure 7* in *Section 6*.
11. Two disused bird nests were present in the former Post Office building and courting/breeding behaviour by pigeons was also observed on site. Feral pigeons can breed all year in an urban environment (although less likely to in winter). Therefore, the buildings should be checked for nests (by an ecologist) immediately prior to works. Any active nests must be retained and work must be delayed in that area until the young have fledged and left the nest. Three semi-mature trees are present on the northern site boundary. These provide suitable habitat for nesting birds. If these are proposed to be removed or pruned, any such work should be carried out outside of the bird nesting season. Alternatively, the trees may be checked for the presence of active nests, by an ecologist, immediately prior to any work commencing.
12. As redevelopment of the buildings is likely to involve removing the existing bird nesting location, new nesting opportunities for birds should be provided. A selection of potential bird boxes (and numbers) are summarised in *Table 5.6.3.1* and indicative positions shown in *Figure 7* in *Section 6*.
13. This survey data is valid for a maximum of 12 months. Bats frequently move around and adopt new roosting sites, therefore if more than 12 months elapses it may be advisable to conduct further survey work to obtain up-to-date information, thereby ensuring protected species compliance.
14. The site is neither designated nor immediately adjacent to any designated areas of nature conservation. However, according to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there are two statutory designated sites within 5km of the site: The River Itchen SAC and SSSI. These sites are designated due to the types of wetland habitats present. These will not be directly affected by these small renovation/redevelopment works and all links will be maintained. In addition, there have been six bat European Protected Species (EPS) licences granted within 2km of the site. As no bats were recorded roosting on site, the proposed works are unlikely to affect these local populations.

2 INTRODUCTION

2.1 General

This report provides information from bat surveys, carried out by Hampshire Ecological Services Ltd for Eastleigh Borough Council, in connection with a proposal to redevelop the site at the former Post Office, High Street, Eastleigh, Hampshire, SO50 5TA (approximate Ordnance Survey Grid Reference SU455189). The location of the site is shown in *Figures 1 and 2* in *Section 6*.

2.2 Site description

The site consists of a three-storey building, formerly the Post Office, with a single-storey building that has been converted to studios (former Sorting Office) extending to the rear. Both buildings have predominately hipped and pitched roofs with smaller sections of flat-roof. The buildings surveyed are shown on the building plan in *Figure 3* in *Section 6*.

The site lies on the eastern side of the High Street, in the centre of the town of Eastleigh. The immediate surroundings consist of dense urban housing and commercial buildings in all directions. There is a small park further to the north and a busy railway line and station further to the east. In the wider landscape dense urban areas and the M3 motorway are to the north and west; to the south and east is a mixture of housing, industrial areas, open green space and small blocks of woodland, with the M27 motorway separating Eastleigh from the city of Southampton. In addition, Southampton Airport is to the south and the River Itchen SSSI and SAC is c.640m to the east.

2.3 Proposed activities

These surveys were carried out in connection with a proposal to demolish the two buildings and construct two detached buildings, which will contain a combination of rental space and residential accommodation.

2.4 Current planning status

Planning permission is being applied for at this site.

2.5 Objectives of survey and report

The surveys by Hampshire Ecological Services Ltd included internal and external inspections of the buildings to identify bat roost potential and to systematically search for bats and evidence of bats. The aim was to identify if bats were present or likely to use the site for roosting. Subsequently, two dusk emergence surveys were carried out. The aim was to identify if bats were present or likely to use the site for roosting.

The surveys and the report writing were carried out in accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition* (Collins, 2016). Any deviations from the guidelines are justified in the relevant sections.

Additionally, all ecological surveys should be completed in line with Natural England's *Standing Advice for Local Authorities*

(<http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/advice.aspx>), which states:

- Natural England will not comment on applications that are submitted without the relevant protected species surveys if there are no other issues (i.e. in relation to SSSIs or landscape).
- Natural England will not comment on scoping surveys that recommend further surveys where these have not been undertaken and submitted with the scoping reports.

2.6 **Structure of this report**

This report is structured as follows:

- *Section 1* contains the executive summary;
- *Section 2* contains an introduction;
- *Section 3* describes the survey methods;
- *Section 4* describes the results;
- *Section 5* evaluates the findings;
- *Section 6* contains the figures including:
 - *Figure 1* gives aerial photographs showing the site location;
 - *Figure 2* gives an Ordnance Survey map showing the location of the site;
 - *Figure 3* gives a site plan;
 - *Figure 4* gives a plan of ecological constraints; and
 - *Figures 5 & 6* illustrate the bat activity recorded during the dusk emergence surveys.
 - *Figure 7* shows the location of the proposed mitigation and enhancements.
- *Section 7* gives photographs of the site;
- *Section 8* lists the references;
- *Appendix A* gives information on relevant legislation;
- *Appendix B* gives information on bat ecology; and
- *Appendix C* gives the raw data from the dusk emergence surveys.

3 METHODS

3.1 Desk study

The *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk) was used to search for designated sites on or adjacent to the site including Local Nature Reserves (LNRs), National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. The search area was 5km for SAC and SPA sites and 2km for LNRs, NNRs, Ramsar sites and SSSIs, as specified in Hampshire's *Biodiversity Checklist*. The search area is also 500m for Sites of Importance to Nature Conservation (SINCs) and ancient semi-natural and ancient replanted woodlands.

In addition, the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk) was used to search for granted European Protected Species (EPS) licences in relation to bats within 2km of the site.

A data search from the Hampshire Biodiversity Information Centre (HBIC) has not been commissioned in relation to this site.

3.2 Field survey

3.2.1 Date(s), times and weather

An external and internal inspection of the buildings was conducted during the daytime on the 30th May 2019. The weather conditions during the survey were warm (17 °C) and dry with 10% cloud cover and calm (Beaufort scale 0).

Subsequently, one dusk emergence survey was carried out on the 25th July 2019. A further dusk emergence survey on the 20th August 2020 to provide up to date information on the site. Details of the weather, air temperature and times of the surveys are given in *Table 3.2.1.1*.

Table 3.2.1.1. Weather conditions during the dusk emergence surveys.

Date	Start time	End time	Sunset	Temperature at start & end (°C)	Wind (Beaufort scale)	Cloud Cover (%)
25/07/2019	20:47	22:32	21:02	27.3 - 25.4	1	20
20/08/2020	20:00	21:45	20:15	20.6 – 18.5	2	70 - 100

The emergence surveys commenced fifteen minutes before sunset and continued for an hour and a half after sunset (long after bats would have exited). The weather was suitable for bat emergence and foraging during the surveys.

3.2.2 Personnel

The initial survey was carried out by Nicola Pyle MCIEEM who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with over 12 years of experience in ecological consultancy. She holds a Natural England licence allowing the disturbance and handling of bats for the purposes of survey in all counties of England (current Bat Class Licence Registration number 2015-18259-CLS-CLS). She was accompanied by Calum Cooper BSc (Hons) GradCIEEM who has four years of experience in ecological consultancy and is trained in undertaking roost surveys with licensed bat ecologists.

Personnel carrying out the dusk emergence surveys are given in *Table 3.2.2.1*. All surveyors are experienced in carrying out bat surveys using detectors.

Table 3.2.2.1. Personnel carrying out the dusk emergence surveys.

25/07/2019	20/05/2020
Nicola Pyle MCIEEM	Nicola Pyle MCIEEM
Calum Cooper BSc (Hons) GradCIEEM	Chloe Mockridge MSc GradCIEEM
Chloe Mockridge MSc GradCIEEM	Rozel Hopkins MSci
Ben Willers BSc (Hons)	Andy Lomas MSc
Claire Ford MSc	Ellie Welch BSc

The Rev0 & Rev1 versions of this report were reviewed by Victoria Russell MCIEEM who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM), with over 23 years of experience in ecological consultancy.

The Rev2 version of this report was reviewed by John Poland CEnv MCIEEM CBiol MSB, who is a full member of the CIEEM, a Chartered Environmentalist (CEnv), a Chartered Biologist (CBiol) and multi-species licence holder with over 20 years of experience in ecological consultancy.

All staff adhere to the Chartered Institute of Ecology and Environmental Management's (CIEEM) *Code of Professional Conduct*.

3.2.3 Assessment of current bat roost suitability

Because bats are crevice-dwelling mammals it is often difficult to thoroughly inspect buildings for bats and evidence of bats without a destructive search, which is not generally practical or acceptable. Examples are where bats roost between the roofing felt and tiles or slates, around window frames and behind bargeboards. These areas cannot be inspected, but a surveyor would know that bats might roost here because there are places where bats could gain entry. A pipistrelle bat is small enough to fit into a match box and can roost in gaps just 14-20mm wide.

The buildings were assessed for their **bat roost suitability** according to the following factors that influence the likelihood of bat roosting:

- Surrounding habitat: whether there are potential flight-lines and bat foraging areas nearby.

- Construction detail: the type and construction of architectural features such as attics, bargeboards, soffit boxes, lead-flashing, cavity walls and hanging tiles that could be used by roosting bats. Some construction details and materials are more favourable to bat occupation than others.
- Building condition: whether the building has no roof or has a sound roof without any potential bat access points.
- Internal conditions: bats favour sheltered locations with a stable temperature regime, protection from the elements and little wind/light/rain penetration.
- Potential bat access points: whether there is flight and crawl access.
- Potential roosting locations: the presence of bat-accessible voids, cracks and crevices.

The risk of bat roosts being present will be lower where structures have:

- Urban setting with little greenspace.
- Heavy disturbance.
- Small, cluttered roof void (particularly for brown long-eared bats).
- Modern construction with few gaps or crevices that bats can fly or crawl through (although pipistrelles may still be present).
- Prefabricated steel or sheet materials.
- Active industrial premises.

The above list provides generic criteria and there are exceptions to consider. For example, pipistrelle roost sites are often found in modern housing estates and therefore the absence of bats from such locations should not always be assumed.

Some information on bat ecology is included in *Appendix B*.

3.2.4 *Systematic inspection for bats or evidence of bats*

The buildings were assessed for their suitability to support roosting bats using the following access and inspection equipment: high-quality 10x42 binoculars; a 1,000,000 candlepower Clulite™ CB2 torch; an LED pen torch; an Explorer Premium™ wireless inspection camera with recordable monitor; and a 3.8m surveyor's ladder. Binoculars were employed to view higher areas such as potential access points on the outside of the buildings. A description of the buildings was recorded on a survey sheet and digital photographs were taken as a permanent record.

Visual, systematic examinations were made for bats and evidence of bats in the buildings, both internally and externally, of the following:

- roof beams, especially the ridge beams;
- cracks, crevices and sheltered voids;
- the floors and stored items;
- external features such as cracks and holes in the walls;
- wall and door surfaces;
- window and door frames; and
- wall bases.

Evidence of roosting bats includes droppings, feeding remains and dead bats, but also staining from urine and fur-oils, scratch marks, odour, the presence of bat-fly (Nycteribiid) pupal cases, and in some cases, the absence of cobwebs.

Bat droppings can prove beyond doubt that bats use a building and can help to identify roosting locations because piles often accumulate beneath roosting sites or entrance points. The location, size, shape, texture and colour of the droppings can be used to aid species identification. DNA analysis of droppings is also possible and samples are taken where necessary. The number and condition (age) of droppings can indicate the size of the roost and when it was last used.

Following the internal and external inspections, the buildings were assigned a level of suitability for being used by roosting bats. This was based on the criteria in *Table 3.2.4.1* (Collins, 2016).

Table 3.2.4.1. Bat Roost Suitability.

Suitability	Description of roosting habitats	Description of commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (<i>i.e.</i> unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, <i>i.e.</i> not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only)	Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. The site is close to and connected to known roosts.

3.2.5 *Dusk emergence surveys*

The dusk emergence surveys followed standard survey protocol in *Bat Surveys – Good Practice Guidelines*, 3rd edition (Collins 2016).

The dusk emergence surveys commenced fifteen minutes before sunset and continued for an hour and a half after sunset. The weather was suitable for bat emergence and foraging during both surveys. See *Sections 3.2.1. and 3.2.2.* for dates and personnel carrying out the survey.

The surveyors were located with good views of the potential bat access points identified during the initial site visit. The timing of the visits, from early evening until after dark and early morning until light, was aimed at detecting active bats in the vicinity. When it was too dark for visual observation, electronic bat detectors were used to listen for the ultrasonic sounds produced by bats either flying in the vicinity or emerging from the building.

The surveyors recorded all bat activity encountered, but particular attention was focused on any bats emerging or re-entering. The results were documented by noting the time, bat species and behaviour (*e.g.* commuting, foraging, social interaction *etc.*). The surveyors were in constant contact via hand-held radios so that information could be easily exchanged regarding bat activity. The time between all surveyors devices was synchronised so time data was recorded precisely.

Bat detectors are used so that surveyors can identify most bat species in the field, using the heterodyne output in combination with bat shape, flight pattern and behaviour. Surveyors were equipped with BatBox Duet™ detectors connected to solid-state recorders (Edirol Roland-05) were employed to record bat calls for later sonogram analysis using BatSound™ computer software (should it be required). Frequency-division, whereby the ultrasound is divided by 10 into an audible range, has a considerable advantage over time-expansion for survey work as it allows recordings to be taken in real time. This ensures that all bat activity is recorded.

Queried recordings were later replayed and analysed through BatSound™ software to ensure that any activity accidentally missed during the survey was recorded and times and location calculated. The species of bat was confirmed at this stage where possible. Bat detector surveys provide one of the most effective methods of identifying bat species and activity patterns. However, it is not always possible to identify bats down to species level, even with subsequent sound analysis.

4 RESULTS

4.1 Desk study

4.1.1 Designated sites

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there are two statutory designated sites within 5km of the site. These are listed in *Table 4.1.1.1*. There are no Sites of Importance for Nature Conservation (SINCs) or ancient semi-natural and ancient replanted woodlands within 500m of the site.

Table 4.1.1.1. Statutory designated sites within 5km of the site

Level of designation	Designation	Name	Distance & direction from site
International	SPA	-	-
	Ramsar	-	-
	SAC	River Itchen	c.675m north-east
National	SSSI	River Itchen	c.675m north-east
	NNR	-	-
	National Park	-	-
County	LNR	-	-
Local	SINC	-	-
	Ancient woodland	-	-

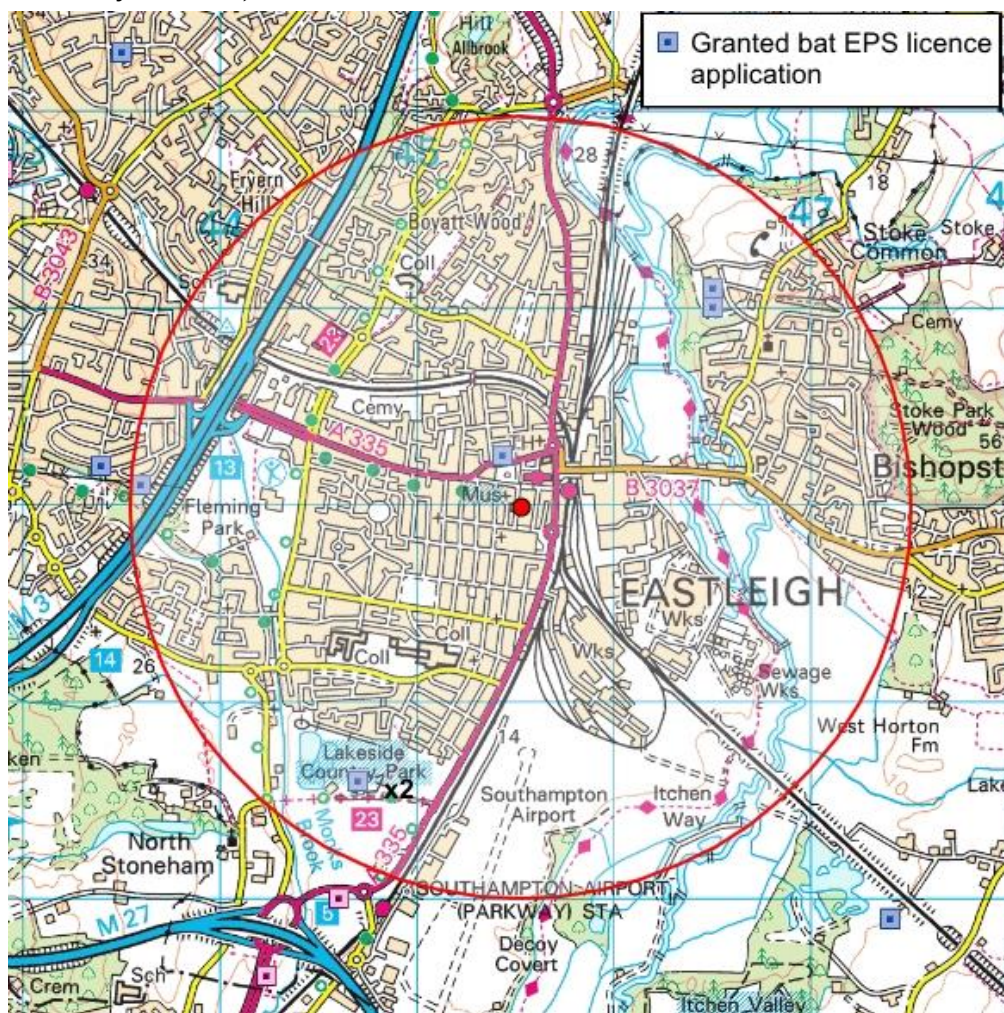
4.1.2 Bats

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there have been six bat European Protected Species (EPS) licences granted within 2km of the site. These are listed in *Table 4.1.2.1* and their locations are shown in *Figure 4.1.2.1*.

Table 4.1.2.1. Granted European Protected Species (EPS) licences within 2km of the site.

Species subject of licence	Type of habitat affected	Date licence was granted	Distance & direction from site
Common pipistrelle	Resting place	03/05/2019	c.275m north-west
Common pipistrelle, soprano pipistrelle and brown long-eared	Resting place	23/04/2012	c.1,425m north-east
Common pipistrelle, soprano pipistrelle and brown long-eared	Resting place	04/08/2015	c.1,478m north-east
Common pipistrelle, soprano pipistrelle and brown long-eared	Resting place	19/02/2015	c.1,625m south-west
Common pipistrelle, soprano pipistrelle and brown long-eared	Resting place	30/09/2016	
Common pipistrelle	Resting place	13/11/2009	c.1,950m west

Figure 4.1.2.1. Location of sites with granted bat EPS licences within 2km of the site (site location marked by a red dot).



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4.2 *Survey of buildings*

The construction details and photographs of the buildings are summarised in *Table 4.2.1*. Additional photographs are given in *Section 7*.

Table 4.2.1. Summary of the buildings construction details.

Type/Name	Former Post Office	Former Sorting Office (Studios)
Description	A three-storey brick building with a pitched and hipped slate roof. There are also bitumen felt flat-roofed sections.	A single-storey brick building with a predominantly pitched and hipped slate roof. Sections of flat-roof, covered in bitumen felt, are present on the southern and northern elevations.
No. of storeys	3	1
Roof type	Pitched, hipped and flat	Pitched, hipped, with two flat sections.
Roof cladding	Slate and bitumen felt	Slate and bitumen felt
Ridge	Tile	Tile and metal
Wall type	Brick	Brick
Exterior	Bargeboards, soffits (north, south & west elevation), dormers and lead-flashing.	Bargeboard, soffits (north & south elevations), chimney.
Photos	North elevation 	North elevation  

Photos	East elevation	East elevation
		
	South elevation	South elevation
		
Building dimensions	West elevation	West elevation
		
	c.12m wide x c.17m long	c.12m wide x c.39m long

Roof void description	Two small side voids are present in the eaves. These are uncluttered with no insulation. The majority of the roof is converted into rooms with pitched ceilings, with a shallow inaccessible void below the ridge.	No roof void present. The interior of the building is open to the rafters.
Frame	Wooden beams and ridge beam	Unknown
Roof lining	Bitumen roofing felt, with wooden sarking boards present in some places.	Unknown
Roof void dimensions	North roof void: c.27m²  South roof void: c.16m² 	N/A
Roof void height	c.1.5m (side voids)	N/A

Potential roosting locations	Against the rafters 	Under lifted slates 
	Under lifted slates 	In gaps under the ridge tiles 
Bat evidence	None	None
Bat suitability	Low	Low

4.3 *External potential bat access points*

4.3.1 *Former Post Office*

The majority of the roof appears well-sealed and in good condition. However, there are several potential bat access points into the roof voids of the building, as well as some exterior features that provide potential roosting locations for bats. The locations and details of potential bat access points are illustrated in *Images 4.3.1.1 – 4.3.1.2*.

Image 4.3.1.1. Location of bat access points on the west elevation of the Post Office.



Image 4.3.1.2. Location of bat access points on the south & east elevation of the Post Office.



Due to the presence of these potential access points, and suitable roosting locations, the building is classed as having low suitability to be used by roosting bats, based on the criteria provided in *Table 3.2.4.1*.

4.3.2 Former Sorting Office (Studios)

The majority of the roof appears well-sealed and in good condition. However, there are a small number of exterior features that provide potential roosting locations for bats. The locations and details of potential bat access points are illustrated in *Images 4.3.2.1 – 4.3.2.2*.

Image 4.3.2.1. Location of exterior features that could be used by bats on the north elevation of the Sorting Office.



Image 4.3.2.2. Location of exterior features that could be used by bats on the south elevation of the Sorting Office.



Due to the presence of the exterior features that could be used by bats, the building is classed as having low suitability to be used by roosting bats, based on the criteria provided in *Table 3.2.4.1*.

4.4 *Commuting and foraging bats*

The three mature trees at the rear provide some very limited bat foraging habitat in the immediate vicinity of the buildings. The park to the north and mature tree-lines along surrounding roads and gardens also provide some foraging habitat around the site. The railway line provides a nearby commuting route to foraging habitat further out from the site.

Bats follow linear landscape features such as lines of trees, hedges, buildings and waterways in order to commute from their roost sites to their feeding grounds. Likewise they use these features to navigate between feeding areas and alternative roosts.

4.5 *Evidence of bats*

No bats or evidence of roosting bats was observed.

4.6 Dusk emergence survey

No bats were observed emerging from the buildings during either of the dusk emergence surveys. However, on the 25th July 2019 common pipistrelles were observed flying in the vicinity of the buildings indicating the weather was suitable for bat activity.

During the dusk emergence survey on the 20th August 2020 both common pipistrelles and noctule bats were observed flying in the vicinity of the buildings (indicating the weather was suitable for bat activity).

The full data from the dusk emergence surveys is given in *Appendix C* and plans illustrating the bat activity during both surveys are given in *Figures 5 & 6* in *Section 6*.

4.7 Other ecological constraints

4.7.1 Birds

Two disused bird nests were observed during the initial survey. Both are in the former Post Office. One is in the north roof void and the other is in the soffit on the south elevation (see *Figure 4* in *Section 6*). At the time of survey neither looked to be active recently.

In addition, courting/breeding behaviour by pigeons was also observed on site.

Three semi-mature *Acer pseudoplatanus* (Sycamore) trees are present on the northern site boundary, adjacent to the carpark. These provide suitable habitat for nesting birds.

5 **INTERPRETATION AND EVALUATION**

5.1 **Constraints on survey data**

Detailed searches often result in the discovery of evidence of bats. However, although such surveys can identify the presence of bats it is more difficult to prove absence due to the crevice-dwelling nature of these elusive mammals. Bat droppings may be missed where there is debris to obscure them (and also, very old droppings generally crumble away to dust).

While the buildings are detached from neighboring properties, the close proximity to the north and south prevents those elevations being extensively observed, particularly the roof of the former Post Office at the third-storey height.

5.2 **Potential impacts of the proposed development on bat roosts**

5.2.1 *General*

The site is neither designated nor immediately adjacent to any designated areas of nature conservation. However, according to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there are two statutory designated sites within 5km of the site: The River Itchen SAC and SSSI. These sites are designated due to the types of wetland habitats present. These will not be directly affected by these small renovation/redevelopment works and all links will be maintained.

The site is c.675m north-east of the River Itchen SAC. Therefore, the impacts of this small-scale redevelopment on the SAC must be considered. The works will likely cause no increase to the building size, and as the site is situated on the high street, a commercial purpose will likely be retained. Therefore, there will be no significant increase in the recreational pressure, or pollution, on this internationally designated site. If either of the buildings are converted into residential accommodation a financial contribution may be required towards creating and maintaining SANGs (Suitable Alternative Natural Greenspaces) in the local area, to avoid causing an increase in recreational pressure on the SAC.

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there have been six bat European Protected Species (EPS) licences granted within 2km of the site. It is unlikely that the re-development of the site will impact the same bat populations.

5.2.2 *Commuting and foraging bats*

There is very limited foraging habitat for emerging bats in the immediate vicinity of the buildings due to the dense urban surroundings. However, there are three semi-mature trees to the rear of the buildings and a number of (heavily pollarded) trees along the High Street to the front. There is also

a small park to the north that has several mature trees, which provide good foraging habitat in this urban area.

Changes in lighting can affect foraging, commuting and roosting bats. Therefore, no works should take place in the hours of darkness or under artificial lighting. In addition, no lighting should be directed onto retained trees, and security lights should operate on a timer, to avoid any negative impact on bats.

Any lighting installed should avoid spillage of greater than 1 lux onto any retained vegetation. The use of non-UV LED lighting (preferably using warm spectrum wavelengths) is strongly recommended so as to avoid the most deleterious impacts of lighting on biodiversity and bats in particular.

5.2.3 Buildings

Former Post Office

Due to the small number of potential access points into the roof voids and suitable roosting features on the exterior building (*e.g.* gaps under the ridge tiles and under lifted roof slates), the building has low bat roost suitability.

No bats were observed emerging from the building during the emergence surveys and no bats or evidence of bats was found during the initial survey. Any works may continue without further surveys or ecological supervision.

Former Sorting Office (Studios)

Due to the small number of suitable roosting features on the building (*e.g.* gaps under the ridge tiles and under lifted roof slates), the building has low bat roost suitability.

No bats were observed emerging from the building during the emergence surveys and no bats or evidence of bats was found during the initial survey. Any works may continue without further surveys or ecological supervision.

5.2.4 Birds

Two inactive bird nests were observed associated with the former Post Office building. In addition, courting/breeding behaviour by pigeons was observed on site. Feral pigeons can breed all year in an urban environment (although less likely to in winter). Therefore, the buildings should be checked for nests (by an ecologist) immediately prior to works. Any active nests must be retained and work must be delayed in that area until the young have fledged and left the nest.

Three semi-mature *Acer pseudoplatanus* (Sycamore) trees are present on the northern boundary, adjacent to the carpark. These provide suitable habitat for nesting birds. If any of these trees are to be felled or pruned, such work should take place outside of the bird nesting season (which is late February to August inclusive), to avoid the destruction of active bird nests and hence comply with

the law (*Wildlife and Countryside Act 1981*). If this is not possible, and vegetation has to be removed or pruned during the nesting season, then they should be inspected (by an ecologist) for nests immediately prior to removal of the vegetation. If any active nests are found during the works, a 5m buffer zone should be established around them and be temporarily fenced off to prevent plant or personnel disturbing the nest until the end of the breeding bird season (or until the nest is no longer in use).

5.3 *Alternative roosting potential*

There are buildings nearby that could provide alternative roosting for bats (see *Figure 1* in *Section 6*). Other surveys by Hampshire Ecological Services Ltd have observed bats roosting within buildings nearby, despite the dense urban surroundings.

5.4 *Survey report expiry*

This survey data is valid for a maximum of 12 months. Bats frequently move around and adopt new roosting sites, therefore if more than 12 months elapses it may be advisable to conduct further survey work to obtain up-to-date information to advise work, thereby ensuring protected species compliance.

Given the mobility of bats, it is recommended that a walkover of the site or an emergence survey to update the survey information is undertaken prior to the works commencing if this does not occur before the end of August 2021.

5.5 *Further survey*

No further surveys are proposed.

5.6 *Outline mitigation and enhancement measures*

5.6.1 *General*

The full enhancements are given in the BREEM Ecology Letter for the site (Hampshire Ecological Services Ltd, 2020).

5.6.2 *Bats*

Although the site is not a bat roost, bats were observed flying in the vicinity of the buildings. Therefore, the site should also be enhanced for bats. It is proposed that at least two bat bricks (e.g. a Habibat™ Bat Box or an Istock Enclosed Bat Box, a Schwegler Bat Tube or similar) are incorporated into the new buildings. The proposed locations of the bat boxes are shown in *Figure 7* in *Section 6*. This will optimise potential roosting opportunities.

No lighting should be installed near to or directed onto retained vegetation so that light disturbance is not increased. This is because lighting can impact bat populations directly by disturbing roosts and reducing their foraging area, or indirectly by severing commuting routes from roosts.

Therefore, the following (modified from *Bats and lighting in the UK* (ILP 2018)) should be undertaken:

- **Aim of light** The light should be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. This lit area must avoid being directed at, or close to, any retained vegetation. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats, as well as people and other wildlife.

For any security lighting, the following should also apply:

- **Power** It is rarely necessary to use a lamp of greater than 2000 lumens (150W) in security lights. The use of a higher power is not as effective for the intended function and will be more disturbing for bats.
- **Movement sensors** Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed.
- **Timers** If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'.
- **Alternatives** The requirement for security lighting in each instance should be carefully considered and only used where absolutely necessary to deter crime.

5.6.3 Birds

As redevelopment of the buildings is likely to involve removing the existing nesting locations on site, new nesting opportunities for birds will be provided. A selection of potential bird boxes (and numbers) are summarised in *Table 5.6.3.1* and indicative positions shown in *Figure 7* in *Section 6*. The swift boxes can be supplied and installed by <https://www.hampshireswifts.co.uk>. This includes integrated boxes to match building exterior and a new soffit design is planned to be available soon.

Table 5.6.3.1. Bird boxes to be erected within the site with additional details on siting to increase chances of occupancy.

Type	Typical species	No.	Height	Additional information
1SP Schwegler Sparrow Terrace 	House sparrows	1	≥ 2m	• Either incorporate into the build structure or mount on sturdy building. Do not fix onto fences or sheds due to its weight. • Position out of direct sunlight (below eaves on the north elevation), away from windows and in a straight line. • Should be in an open area so that it is less accessible
WoodStone Build-in House Sparrow Nest Box 				
Vivara Pro WoodStone House Sparrow Nest Box				

				to predators and birds are not obstructed as they leave the nest. Avoid mounting in close proximity to other integrated bird (or bat boxes) <i>i.e.</i> on the same elevation/ wall.
Schwegler 1B  Vivara Pro Seville 32mm Woodstone Nest Box 	Blue tits, great tits	1	2-4m	Position on a building or tree, angled north-east (away from prevailing winds) and tilt forward slightly. Chances of occupation can be increased by positioning boxes near vegetation.
Swift boxes e.g. Ibstock Eco-habitat  No.18 Schwegler 	Swifts	8	≥ 5m	- Either incorporated into the build structure or mounted on a building. - Position out of direct sunlight (below eaves on the north elevation), away from windows and in a straight line. - Should be in an open area so that it is less accessible to predators and birds are not obstructed as they leave the nest.

5.7 **Requirement for Habitats Regulations licence – European Protected Species (EPS) licence**

A bat EPS licence is not required for work to commence on the buildings. In the unlikely event that bats are found, then works will be stopped immediately and an EPS licence from Natural England will be applied for.

An EPS licence for bats from Natural England permits activities that may otherwise be offences under the *Conservation of Habitats & Species Regulations 2017*, such as the destruction of roost sites.

Evidence is required from emergence surveys during the bat active season (between May and September) in order to gather enough information about bat populations (including species, numbers and status of roost sites) to support a bat EPS licence application.

Survey data supporting EPS licence applications must be up-to-date, *i.e.* have been conducted within the current or most recent optimal survey season (May to September).

Natural England takes a minimum of 30 working days to process licence applications following receipt of all the relevant documentation. This includes an application form and a Method Statement. This includes a detailed mitigation strategy to eliminate or reduce impacts on bats.

It is not possible to apply for an EPS licence until full planning permission has been granted and any conditions relating to wildlife fulfilled, although Local Planning Authorities usually request the information prior to determining a planning application request. Additional time will be required where any revisions to a proposed mitigation strategy are necessary to obtain the licence.

Figure 1. Aerial photographs showing the location of the site.



Figure 2. An Ordnance Survey map showing the site location, as indicated by the red arrow.



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Figure 4. Plan showing the locations of ecological constraints.

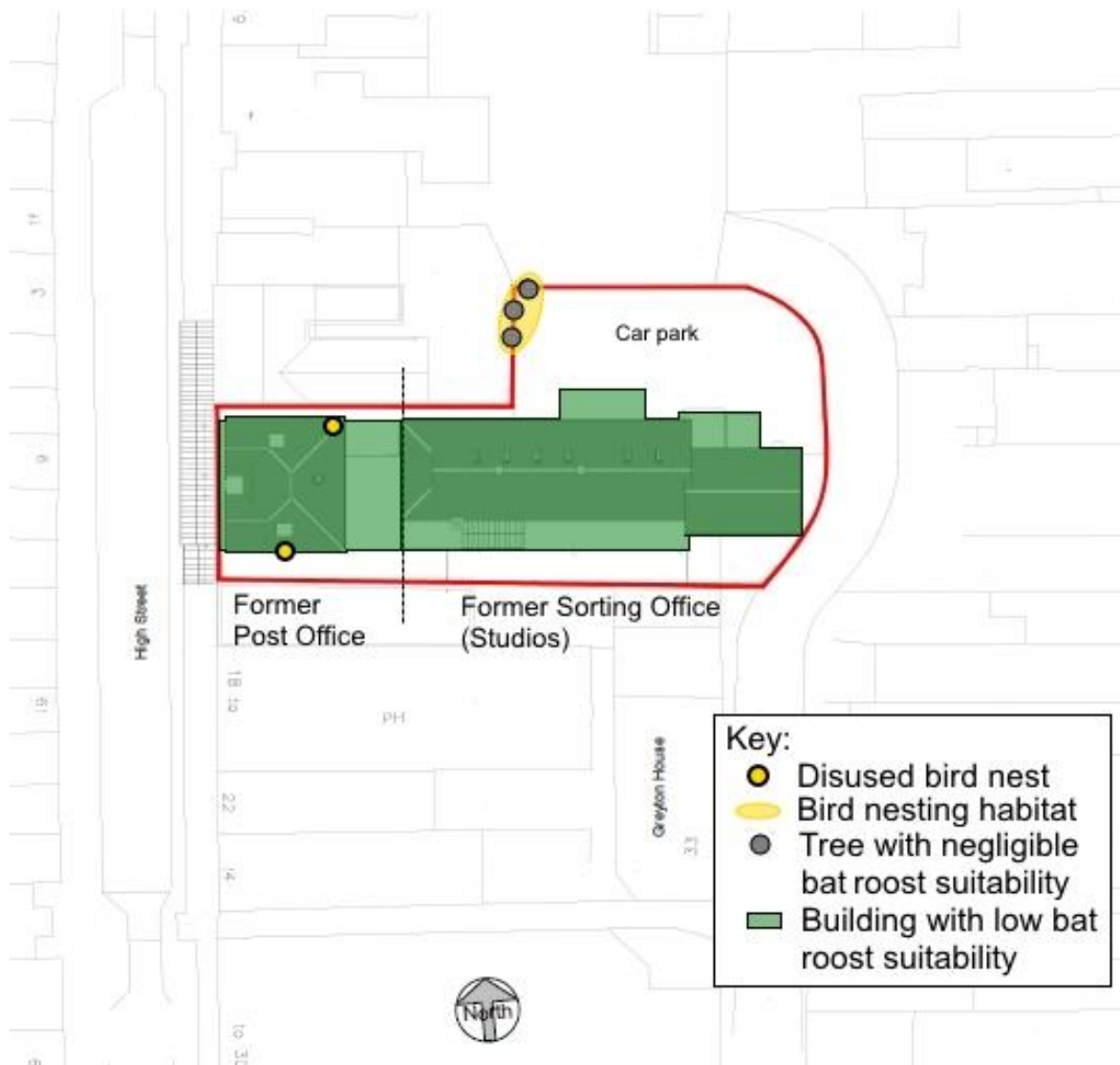


Figure 5. Plan showing bat activity (observations only) for the dusk emergence survey carried out on the 25th July 2019. Arrows show direction of flight (where known).

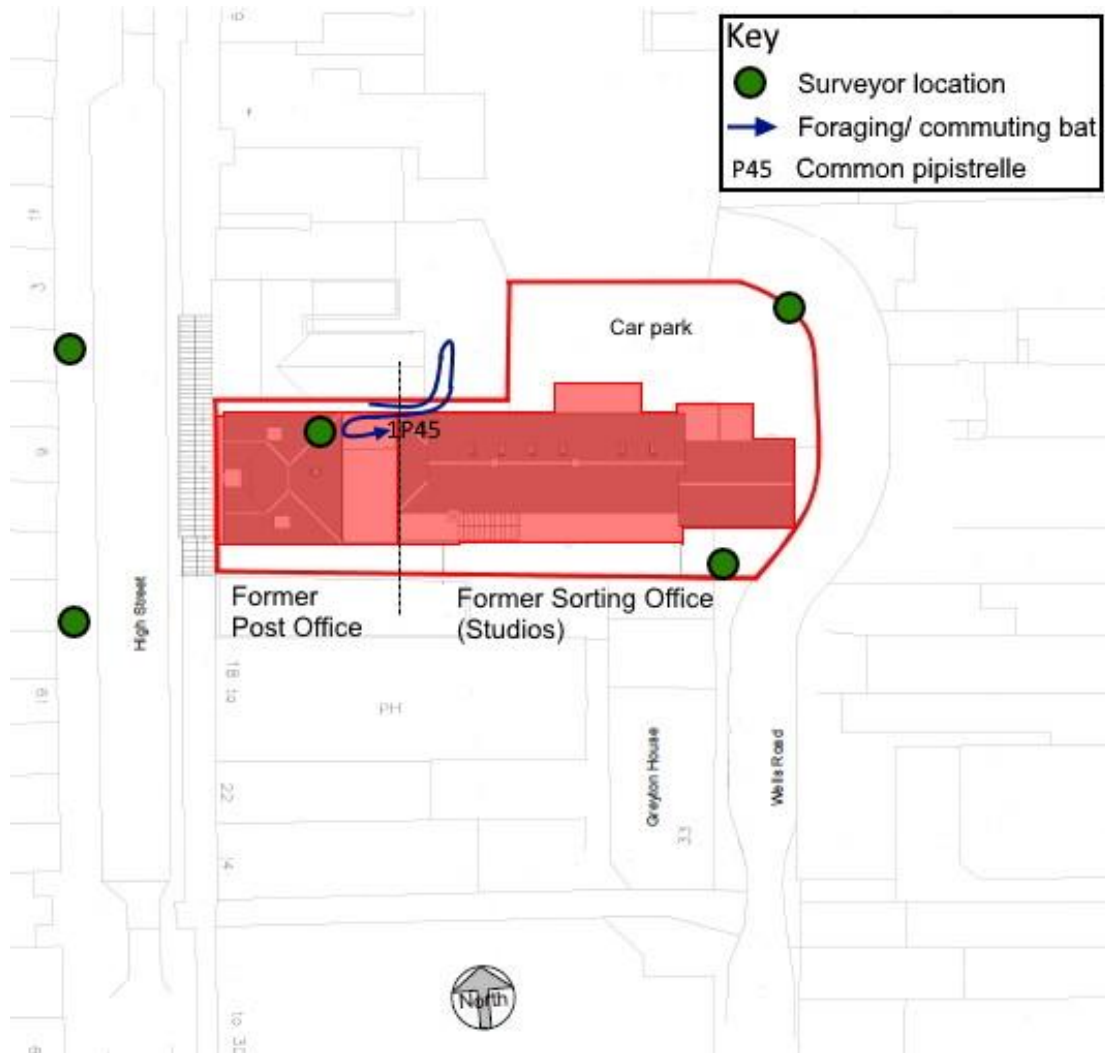


Figure 6. Plan showing bat activity (observations only) for the dusk emergence survey carried out on the 20th August 2020. Arrows show direction of flight (where known).

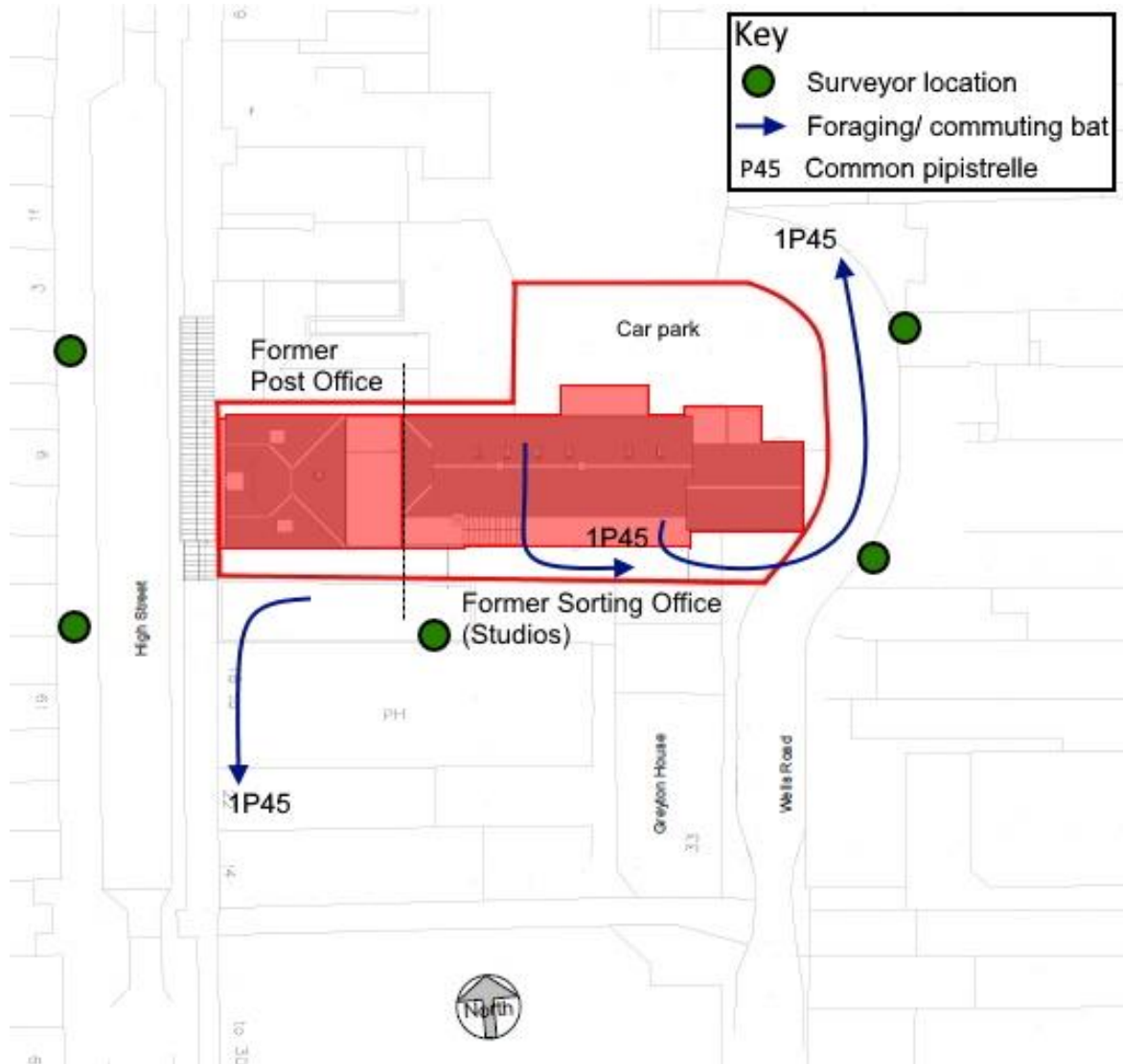


Figure 7. Location of the proposed enhancements on the site.

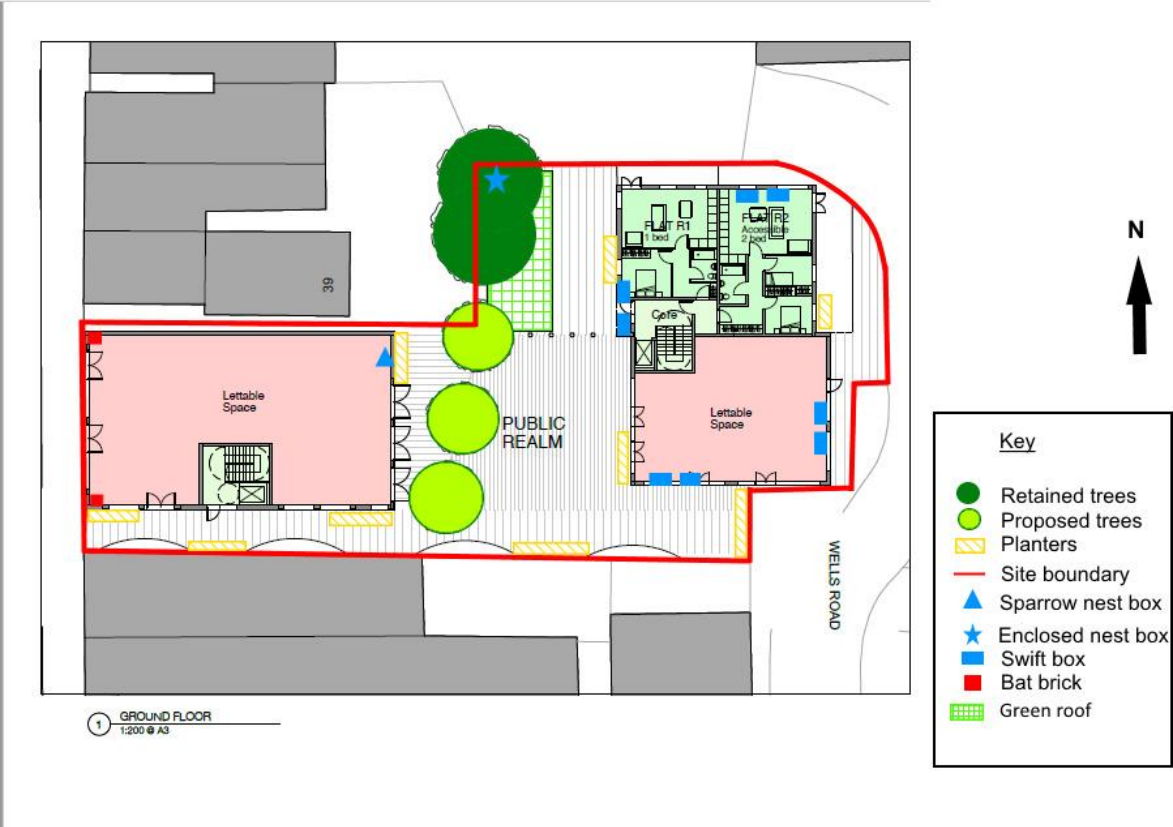


Photo 1. The former Post Office viewed from Eastleigh High Street.



Photo 2. Eastleigh High Street, facing south.



Photo 3. The High Street viewed from the third-floor windows of the former Post Office.



Photo 4. Alley on the south side of the buildings



Photo 5. Three mature Acer pseudoplatanus (Sycamore) trees, to the north of the former Sorting Office



Photo 6. Commercial loading area to the rear of the site and neighbouring commercial properties, Wells Road.



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9.1 Legal context

All species of British bat are protected by the *Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also European Protected Species listed on the *Conservation of Habitats & Species Regulations 2017*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat (in such a way as to be likely to significantly affect: (i) the ability of a significant group of bats to survive, breed or rear/nurture their young; or (ii) the local distribution or abundance of the species concerned);
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present (bats tend to reuse the same roost).

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats & Species Regulations 2017* it is possible to apply for a European Protected Species (EPS) licence from Natural England. Licences are only issued where Natural England are satisfied that three derogation tests are met. These are: that the activity is for **imperative reasons of overriding public interest**; that there must be **no satisfactory alternative**; and that **favourable conservation status of the species must be maintained**.

Consideration of these three derogation tests was previously left to Natural England as part of their deliberations on whether to grant a licence for the development activity after a planning consent has been issued. However, the regulations now require that **all** public bodies, i.e. **Local Planning Authorities** (LPAs), have regard to the requirements of the European Habitats Directive when carrying out their functions. As a result, LPAs **must** address the three derogation tests when considering a planning application that could impact upon any European Protected Species (EPS).

9.2 *National planning context*

9.2.1 *General*

Surveys should be completed in line with Natural England's *Standing Advice for Local Authorities* (<http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/default.aspx>), which states:

- Natural England will not comment on applications that are submitted without the relevant protected species surveys (see flowchart) if there are no other issues (*i.e.* in relation to SSSIs or landscape).
- Natural England will not comment on scoping surveys that recommend further surveys where these have not been undertaken and submitted with the scoping reports.

In addition to the above, *Section 40* of the *Natural Environment and Rural Communities Act* (2006) imposes a new duty on all public authorities to have regard for biodiversity.

9.2.2 *National Planning Policy Framework (NPPF)*

From the 24th July 2018, the Government published the revised National Planning Policy Framework. The document sets out the government's planning policies for England and how these are expected to be applied. This replaces a previous version which was published in March 2012. It states: "*at the heart of the Framework is a presumption in favour of sustainable development (paragraph 11).*"

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- an economic objective;
- a social objective; and
- an environmental objective.

The environmental objective is to "*contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy*".

Planning policies and decisions should contribute to and enhance the natural and local environment by "*protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)*" and "*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*".

If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted.

Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

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

It should be noted that the *"presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined"*.

The NPPF also encourages *"minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"* and aims to *"promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity"*. This applies to non-statutory designated sites including Sites of Importance for Nature Conservation (SINCs) and equivalent county wildlife sites.

Early engagement with all necessary stakeholders, including expert bodies, is encouraged by the NPPF.

Bats use different roosting sites throughout the year according to their life cycle requirements.

Hibernation during the winter months requires roosting sites that are cool and humid. As conditions improve through the spring, bats become increasingly active and tend to use transitional roosting sites. During the summer months, females give birth in maternity roosts. Maternity roosts tend to be warm and temperature-stable, which aids rapid development of the young, which are weaned in late summer. In the autumn, adult bats congregate in mating roosts and also use transitional roosting sites. Autumn is the time when both adults and juveniles have to build up fat reserves in preparation for hibernation through the winter months.

Bats also use roosts during the night as feeding perches. Species that catch large prey items such as moths (*e.g.* brown long-eared bat) often enter buildings to hang up and eat their prey before emerging again to forage. Such feeding perches tend to be obvious from scatterings of bat droppings with moth wings, which the bats discard.

Bats are at their most vulnerable during the summer in their maternity roosts, when disturbance can jeopardise their breeding success. Bats give birth to only one pup per year and young do not breed until the second or third year after birth. This means that if maternity colonies are disturbed there can be serious implications for the conservation status of populations.

Bats are also vulnerable during the winter hibernation period, when disturbance can reduce the chance of survival through the winter at a time when food is in short supply.

This is why there are often only narrow timeframes for bat survey and mitigation work.

APPENDIX C: DUSK EMERGENCE SURVEY DATA

Date	25/07/2019			
Temp	27.3°C at start and 25.4 °C at the end			
Weather	Hot, humid and dry with 20% cloud cover and an occasional breeze (Beaufort scale 1)			
Ecologists	Nicola Pyle, Calum Cooper, Chloe Mockridge, Ben Willers and Claire Ford			
Observer	Time	No.	Species	Observation
-	20:47	-	-	Ecologists commenced observations
-	21:02	-	-	Sunset
NP	21:27	1	Common pipistrelle	Foraging between and to the north of the two buildings
NP	21:35	1	Common pipistrelle	Heard but not seen
CM	21:36	1	Common pipistrelle	Heard passing twice but not seen
CM, BW	22:20	1	Common pipistrelle	Heard commuting but not seen
-	22:32	-	-	Ecologists ceased observations
Date	20/08/2020			
Temp	20.6°C at start and 18.5 °C at the end			
Weather	Hot and dry with cloud cover varying between 70-100% and a light breeze (Beaufort scale 2)			
Ecologists	Nicola Pyle, Chloe Mockridge, Rozel Hopkins, Ellie Welch, Andrew Lomas			
Observer	Time	No.	Species	Observation
-	20:00	-	-	Ecologists commenced observations
-	20:15	-	-	Sunset
CM	20:36	1	Common pipistrelle	Heard commuting but not seen
CM, AL	20:40	1	Common pipistrelle	Foraging north around the eastern end of the building over the road
NP, AL	20:41	1	Common pipistrelle	Commuting over the centre of the roof heading south then east along the south elevation
CM	20:41	1	Common pipistrelle	Heard foraging but not seen
CM	20:54	1	Common pipistrelle	Heard distantly but not seen
EW	21:22	1	Common pipistrelle	Flying west down the alley to the south of the building then south over the building to the south
CM	21:34	1	Noctule	Heard but not seen
CM	21:38	1	Common pipistrelle	Heard but not seen
-	21:45	-	-	Ecologists ceased observations