The Ecology Consultancy

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25 Kidderpore Avenue, Hampstead

Application: EPSM Licence - Bats

Delivery Information

Report for Natural England's Wildlife Management & Licensing Service

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Contents

A Mitigation and Compensation

A.1 SUMMARY OF MITIGATION STRATEGY

Removal and reconstruction of roof

The following measures will be adopted to minimise the likelihood of disturbance to summer roosting bats during works:

- Prior to works commencing, the ecologists will outline the bat issues and describe this Method Statement to the contractors in the form of a tool box talk. This will include a licensed bat ecologist briefing workers on where bats might be found. They will be informed of the legislation relevant to bats and made aware that, if bats are found, works must stop immediately in that area and the licensed bat ecologist will give advice on how best to proceed. This advice may include leaving the bat to disperse of its own accord, or waiting for the licensed handler to move the bat.
- As part of the induction, the contractors will highlight any H&S measures that must be observed during works. Contractors and ecologists will work side by side from scaffolding.
- Works will be carried out under favourable weather conditions, i.e. when weather conditions are predicted to be dry, calm and warm and suitable for bat activity.
- The building will be subject to a single dusk emergence and pre-dawn re-entry survey to determine the presence or likely absence of bats within the roofing materials, and building as a whole. The monitoring survey is required to inform a soft-strip of roofing materials to be carried out on the following day.
- Exclusion is considered to be unfeasible given the number of roosting opportunities, and so carefully supervised works and soft-strip of materials is to be undertaken instead. All gaps will be carefully checked by a licensed bat ecologist working alongside the contractor.
- The soft-strip will involve dismantling the roof materials, comprising roof tiles, roofing felt, soffit boxes, barge boards and hanging tiles, by hand, using minimal force. The tiles, felt and other materials are to be lifted carefully and cleanly off, without closing the gap between each layer or

scraping or pressing materials together, in order to avoid harming bats that may potentially be present or clinging to the underside of materials. All revealed spaces will be carefully checked by the ecologists.

- Monitoring and soft-strip works will be supervised by suitably experienced and qualified ecologists, and overseen by licensed bat ecologists. This will be carried out from a scaffold with edge protection.
- Works will only be carried out under favourable weather conditions. If bats are found, further work to the building(s) will cease and will not continue until the licensed bat ecologist has given advice on how best to proceed i.e. until the bats have dispersed on their own accord or (preferably) have been moved to the provided compensatory roosting habitat by a licensed bat handler.
- The Building will be left in a secure state for demolition to follow. It will be intended that demolition follow the soft-strip as closely as possible.
- In the case of injury, the bat will be examined by the licensed bat ecologist (who is also a bat carer) and appropriate action taken.
- Ecologists will provide general working PPE, wearing site boots, hard hats and high-vis as standard. Further required PPE, including lanyards or safety equipment for working from a scaffold would be provided by the contractors where necessary.
- This Method Statement for this licence will be made available at the site.

Retained Roosting Habitat

The existing roost will be retained within the proposals. All roofing materials, including the hanging tiles and roof tiles, will be removed and replaced with new materials, however, the distribution of proposed access points/egress points will be created as close as possible to the existing (see below).

Roosting Crevices

Access to crevice space between roofing materials on 25 Kidderpore Avenue will be provided via bat access points at three locations on the renovated roof of the building and by three adapted hanging tiles on the renovated double bay window on the north elevation of the building. These features will only allow access between the exterior hanging/roof tiles and the roofing felt.

Detailed specifications for the features will be provided to the construction team and a suitably qualified ecologist will visit the site to sign off the features once they have been installed.

Materials

All new materials used within the building will be suitable for and sympathetic to the presence of bats:

- Breathable Roofing Membranes (BRM's) cannot be used in renovated building as bats may have access to this hazardous material via the compensatory features or through naturally occurring gaps in the roofing material. Some breathable membranes can result in bats dying, and it is not possible to identify a breathable membrane which is does not have this effect as studies are still in their early stages. Traditional roofing felt must therefore be used.
- Timber treatment can be used as long as timbers are pre-treated and fully dried prior to fitting. Suitable treatments are zinc and copper based treatments.

Compensatory Roosting Habitat

Replacement roosting habitat, three bat boxes, will be installed on mature trees within high value commuting and foraging habitat prior to the soft -of roofing materials from the existing roost (see below). This will provide interim roosting sites as well as being retained for the long term, as enhancement.

The specifications listed are in accordance with the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines 2nd Edition (Hundt, 2012) and designs provided by the Joint Nature Conservancy Committee (JNCC) handbook: The Bat Worker's Manual (Mitchell-Jones & McLeish, 2004).

Key considerations for the creation of a new roost are the size and suitability of the final roost, and the disposition of the entrances and flight paths - including the location of any exterior lighting and vegetation. The compensatory roost must, therefore, be sympathetic to such requirements, which vary from species to species.

In the case of 25 Kidderpore Avenue, the compensatory roosts will be created to be suitable for pipistrelle bats. The resultant specifications are described below.

Artificial Roost Boxes

A total of three bat boxes, comprising two Schwegler 2F general bat boxes and one Schwegler 1FF summer/nursery box will be provided on mature trees within the site. The selected trees will be located in recorded high value commuting and foraging habitats and will be retained throughout the development. Specific trees will be determined based on suitability at the time of installation, and in consideration of the final design of the site, however, based on previous survey work, it is likely that T10, T18 and T39 will be used (The Landscape Partnership, 2012; see MS 1, Plan 9 and MS 2 Plan 1). The boxes will be sited by a suitably qualified ecologist at least one month prior to commencement of the soft strip works.

B Works to be undertaken by the Ecologist or Suitably Experienced Person

B.1 CAPTURE AND EXCLUSION

A suitably qualified ecologist will brief all personnel on site about where bats might be found, on bat legislation and on what to do if bats are discovered during works. All works that could potentially impact on bats will be carried out under the supervision of accredited agents and licensed bat ecologists [redacted] and [redacted]

Works will be supervised and regularly checked as they proceed to ensure compliance with legislation. In particular, checks will be made to ensure that mitigation has been carried out in accordance with the method statement. Should any deficiencies be found, the client will be advised as to what is required to remedy the situation and checks will be made to ensure this has been done. If the ecologist is not satisfied that the method statement is being followed, and the client has not taken steps to rectify the situation, having been made aware of the fact, the licensing authority will be informed.

The placement of bat boxes will be completed one month prior to the works commencing.

The building will be subject to a monitoring survey, comprising a single dusk emergence and pre-dawn re-entry survey, prior to soft strip works commencing. The findings of the survey will inform the presence or likely absence of bats within the building prior to the soft strip demolition. If present, access/egress points for bats will be recorded and caution will be applied to soft-strip works in these areas.

Exclusion devices will not be used, owing to the number of potential access/egress points and the likely subsequent inefficiency of this method. Instead, great care will be taken to check all crevices first and then a cautious approach to soft-strip being applied throughout the works. Furthermore, monitoring surveys will be used to inform the presence or likely absence of bats from the roost. If bats are found to be present, increased care will be taken in the area of their access/egress points.

All soft-strip activities will be carried out under the supervision of a licensed ecologist. The soft strip involves dismantling the roof materials by hand, using

minimal force. The tiles, felt and other materials are to be lifted carefully and cleanly off by a contractor, without closing the gap between each layer, scraping or pressing materials together, to avoid harming bats that may potentially be present.

If bats are discovered during works they will be removed by a licensed bat ecologist. (All bat handling will be carried out using gloves). A visual health check of the bat will then be completed. If the bat is considered fit, it will be released into the compensatory bat boxes. Any injured bats will be taken into care until the animal is fit to be released. Details of bat carers/a bat hospital are known (e.g. [redacted] is a registered bat carer and works with Sussex Bat Hospital's [redacted] (Forest Row), [redacted] (Hurstpier Point) and [redacted] (Steyning)). Any bats taken into care will be released at the site following their successful recuperation and only under favourable weather conditions (i.e. when weather conditions are predicted to be dry with temperatures ≥9°C for a period of 5 successive nights).

Programme on site

Day 1: Two ecologists working without contractors.

- 1.) The ecologists will carry out the dusk emergence survey from suitable vantage points and will record all bat activity on site, specifying any observed emergences/re-entries to 25 Kidderpore Avenue.

Day 2: Two ecologists working with two contractors.

- 1.) The ecologists will carry out the pre-dawn re-entry survey from suitable vantage points and will record all bat activity on site, specifying any observed emergences/re-entries to 25 Kidderpore Avenue.
- 2.) The ecologists will supervise and assist contractors removing all roof tiles, roofing felt and soffit boxes by hand.
- 3.) The ecologists will carefully check revealed spaces and the underside of materials for bats, which will be carefully moved to the compensatory bat boxes, if found.
- 4.) Any superficial gaps would be checked by the licensed bat ecologist using an endoscope and then stuffed with rags if unoccupied.
- 5.) It is envisaged that the roof materials would be removed in total within a single day, therefore, the building would be checked by the licensed bat ecologist and signed off for demolition.

C Works to be Undertaken by the Developer/Landowner

C.1 BAT ROOSTS

C.1.1 In-situ retention of roost(s)

The existing roosts will be retained during works, albeit with alterations to access/egress points where required when works are in progress. It will be necessary that works are effective to make the building watertight, but the ecologists will work closely with contractors to ensure that appropriate access points are provided close to existing ones, where existing access cannot be maintained (see below for access points which are to be created).

C.1.2 Modification of existing roost(s)

The existing roost will be modified as a result of the repair works involving the removal and reconstruction of the roof and general repairs to the building.

A total of three bat access tiles (eyelid tiles, ventilation tiles or Tudor access tiles) will be fitted within the renovated roof structure of the building. The tiles will be positioned in such a way as to replicate the occurrence of these features on the existing building and one will be placed close to the apex of the building to account for the association with bat roosts in these areas. The tiles will grant access for bats to the crevice between the roofing felt, horizontal batons and exterior tiles only.

A total of three modified 'Tudor' hanging tiles will be instated on the refurbished area of hanging tiles on the north elevation of the building. As with the access tiles located on the roof of the building these will provide access to the space between the batons and tiles only and will replace access to crevice space lost during the renovation.

Locations of the access / egress points described above, which will be provided during the works, are shown on MS 2, Plan 2.

C.1.3 New roost creation

A total of three bat boxes (two Schwegler 2F general bat boxes and one Schwegler 1FF summer/nursery box) will be erected on trees to be retained as part of the development. The chosen trees will be located within known high value commuting and foraging habitat within the site (see MS 1, Plans 6, 7 and 8) and positioned in such a way as they are not overtly lit by any proposed lighting strategy. Specific trees will be determined based on suitability at the time of installation, and in consideration

of the final design of the site, however, based on previous survey work, it is likely that T10, T18 and T39 will be used (The Landscape Partnership, 2012; MS 1 Plan 9 and also MS 2, Plan 1).

The lighting strategy will be informed by the Biodiversity Strategy (The Ecology Consultancy, 2013) which seeks to protect recorded commuting and foraging habitats from artificial lighting.

D Post-development Site Safeguard

D.1 HABITAT/SITE MANAGEMENT AND MAINTENANCE

Project Technical Manager, [redacted], of Barratt Homes, will hold the licence as the developer and, as such, will be responsible for implementing the associated works. [redacted] has agreed to undertake implementation of the licence insofar as this concerns installation of the compensatory roosts during the proposed renovations, including a total of six access tiles to crevice space within the roofing materials of the building and three bat boxes erected on retained trees within the site. Once installed and signed-off by a suitably qualified and licensed bat ecologist, however, it is understood that these features will require no further maintenance.

In the event that any works are required on, or close to, any of these roost features, then an ecologist will be consulted prior to works.

D.2 POPULATION MONITORING, ROOST USAGE ETC.

The site supports a summer roost of small numbers of common and widespread species and it is understood that no maternity or hibernation roosts are present, therefore, monitoring effort can be proportionate. It is considered valuable to understand what mitigation is effective and therefore one monitoring visit by two ecologists is recommended, to comprise an emergence survey during survey season (May – August inclusive). Where bats are found to be present, this would be suffice to confirm that the mitigation has been successful. Where this is not observed, it may be necessary to determine why bats are not using the features and carry out follow up work and further monitoring, as required.

D.3 MECHANISM FOR ENSURING DELIVERY OF POST-DEVELOPMENT WORKS

The licence will not include conditions for post-development works.

E Land Ownership – Mitigation Site(s)

E.1. MITIGATION SITE OWNERSHIP

The site will remain under the ownership of Barratt Homes, under the direction of [redacted].

E.1.1 I confirm that relevant landowner consent has been granted to accept bats into roosts onto land outside the applicant's ownership - **Not applicable**

E.1.2 I confirm that landownership consent has been granted to allow the creation of the proposed habitat compensation on land outside the applicant's ownership – **Not applicable**

E.1.3 I confirm that consent has been granted by the relevant landowner for monitoring and maintenance purposes on land outside the applicant's ownership – **Not applicable**

F Timetable of Works

Timing	Operation	Purpose	Precaution	Comments
March 2014	Siting of three compensatory bat boxes	To provide compensatory and replacement roosting opportunities for bats to account for the loss of such habitats during the development.	Ensure that there is a secure location to release any bats encountered during the renovation works.	To be sited by a suitably qualified ecologist on trees in known high value commuting and foraging habitats that are to be retained through the development. Not to be illuminated by artificial lighting.
April 2014	Monitoring of 25 Kidderpore Avenue over a single dusk emergence / pre-dawn re-entry survey.	To determine the presence or likely absence of bats within the roost prior to soft-strip demolition.	To ensure that sufficient care is taken when removing, by hand, roofing materials in the area where bats, if present, are observed emerging from/re-entering the building.	Only to be carried out on a dry, calm, night, when it is warm and bats would be active. Methodology to follow good practice guidelines and be carried out by suitably qualified ecologists.
April/May 2014	Tool box talk by a suitably qualified bat ecologist to site contractors carrying out works. The method statement will be made available within the site office.	Contractors will be briefed on where bats might be found. They will be informed of the bat legislation, details of the method statement for the bat licence, and made aware that if bats are found, works must stop immediately in that area and the licensed bat ecologist will give advice on how best to proceed.	To ensure all site personnel are aware of the issues related to bats.	The licence method statement will be made available within the site office. Tool box talks will be reiterated in the event that any personnel are changed and will be treated as part of the site induction.
April/May 2014	Soft-strip	To ensure minimal risk of harm or disturbance to	To minimise disturbances to bats during the soft-strip and demolition of the buildings.	Scaffolding will be provided by the client to enable the

Timing	Operation	Purpose	Precaution	Comments
		bats during demolition activities.	All works will be carried out under supervision of a licensed bat ecologist.	ecologists to closely supervise removal of roofing materials. If bats are discovered the licensed bat ecologist will move them carefully by hand to the provided bat boxes. If any bats are injured, these will be taken into care/ local bat hospital.
Summer 2014	Supervision of compensatory roost creation	To guide installation of the compensatory crevice features to the roofing materials of the refurbished building, ensuring that they are installed effectively to provide the required roosting conditions.	To ensure that the proposed compensatory measures are suitably installed.	Scaffolding will be provided by the client to enable the ecologists to closely supervise installation of the compensatory roosts.
Summer 2014	Monitoring of roost creation	To determine if these are in use following works by roosting bats.	To determine if the compensatory measures have been effective for maintaining the roost on site.	If bats are not using these features as a roost, alterations will be made, with follow up surveys carried out, if needed.