Preliminary Roost Assessment

Morinda, The Green, Horns Drove, Rownhams, Southampton, Hampshire, SO16 8AJ

Bob Singh

Status	Issue	Name	Date
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Industry Guidelines and Standards

This report has been written with due consideration to:

Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

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

British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Bob Singh to undertake a Preliminary Roost Assessment (PRA) at Morinda, The Green, Horns Drove, Rownhams, Southampton, Hampshire, SO16 8AJ (hereafter referred to as "the site"). The survey was required to inform a planning application for front and side extensions to the current residential dwelling as well as garage extensions (hereafter referred to as "the proposed development").

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 5 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Roosting bats B1	Building 1 has a confirmed roost, as identified by bat droppings found in the loft which are confirmed to be from a common pipistrelle. There is a low volume of droppings (<10) which is suggestive of a single bat entering the loft or a small number of droppings have come into the loft from a larger accumulation between the roof tiles and roof membrane above. The house has multiple external roost features for supporting this species, such as a gap under a tile on the porch roof, as well as hanging tiles on the eastern half of the building.	The proposed development will result in the extensions and alterations to this building, which will be two-storey in height. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. Infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Four surveyors are required to provide full coverage of the building.
Roosting bats B2	Building 2 has moderate value for roosting bats. There are lifted tiles on all viewable roof elevations that are suitable for supporting roosting crevice-dwelling bats. The close proximity of the building to B1, which has evidence of roosting bats, and the presence of an EPSL for common pipistrelle bats 200m of the site, this greatly increases the likelihood of bats using this building.	The proposed development will result in the alterations to this building to attach an annexe and will include the repairs to the roof space of this building. This could result in damage and destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely absence of a bat roost in the building. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. Infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. An additional two surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building one additional survey may be required to characterise the roost and to inform an EPSL application to Natural England. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been

			granted and all relevant wildlife-related conditions have been discharged prior to submission.
Nesting birds	There was no nesting activity observed on B1, such as under the solar panels. Hanging tile features identified for bats are not lifted enough to support nesting birds. The lifted tiles of B2 are suitable for supporting nesting birds underneath, for species such as wrens, robins and tits. No nest material was spotted at the time of the survey, but if nests are hidden under tiles this is unlikely to be spotted.	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests that may be within B2	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. .

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Bob Singh to undertake a Preliminary Roost Assessment (PRA) at Morinda, The Green, Horns Drove, Rownhams, Southampton, Hampshire, SO16 8AJ (hereafter referred to as "the site"). The survey was required to inform a planning application for front and side extension to the current residential dwelling as well as garage extensions (hereafter referred to as "the proposed development").

A plan showing the proposed development is provided in Appendix 1.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the "Bat Surveys for Professional Ecologists —Good Practice Guidelines" publication (Collins, 2016). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author's knowledge, by any other consultancy.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference SU38521749 and has an area of approximately 0.2ha comprising a large residential dwelling, detatched garage and surrounding gardens. It is surrounded by the M27 to the north with a buffer zone of a strip of broadleaf woodland which flanks the M27 for several miles. Beyond the M27, within 120m is the start of a large woodland area, comprising several plantations and copses which stretches for 2km north. To the south is the town of Rownhams,. The wider landscape comprises of a large area of mixed woodland sites which measures over 200ha, located 700m to the east. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an inspection of built structures, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site's bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.

Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Annabel Sharpe Graduate Ecologist, license number 2023-11145-CL17-BATon 29/08/2023

The PRA focussed on 2 built structures which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls Tyto alba.

2.4 Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows.

	Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

A biological records data search has not been undertaken. However, given that DNA results has concluded bats in the loft then biological records will be required before any further surveys and licenses can be granted.

Views of B2 were limited, due to the west elevation overlooking neighbouring property and a line of sight could not be established from any position. Views of the north elevation of B2 were limited due to the adjacent plant and tree growth. This will be a limiting factor in the following recommended surveys.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

No statutory designated sites with bat qualifying interests were identified within 2km of the site.

3.2 Historical Records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 2.

Table 2: Granted EPSLs for bats within 2km of the site

EPSL reference	Bat species affected	Impacts allowed by licence	Distance from the site
2015-18011-EPS-MIT	Common pipistrelle	Destruction of a resting place	200m south
EPSM2011-3874	Common pipistrelle	Destruction of a resting place	970m west
2015-17519-EPS-MIT	Common pipistrelle	Destruction of a resting place	1.05km west
EPSM2010-2565	Brown long-eared	Destruction of a resting place	1.15km west
EPSM2010-2246	Common pipistrelle and Brown long-eared bat	Destruction of a resting place	1.32km south

3.3 Field Survey Results

The weather conditions recorded at the time of the survey are shown in Table 3. The results of the field survey are detailed in Table 4 and illustrated in Appendix 3.

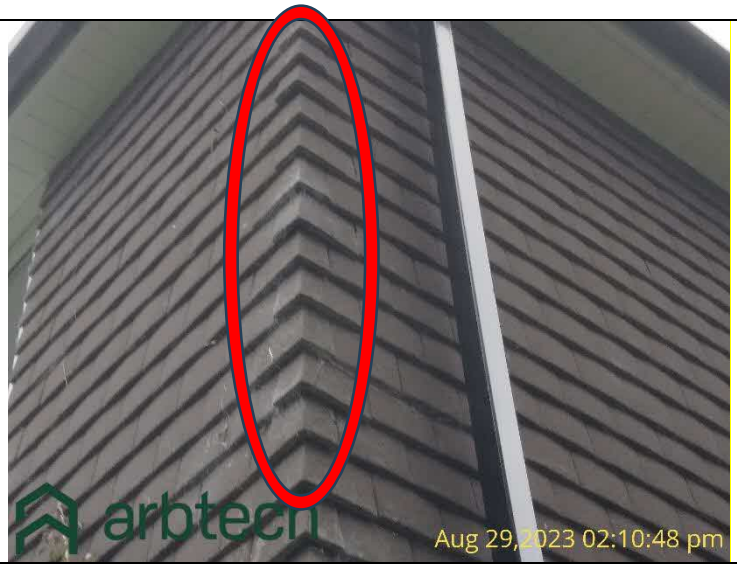
Table 3: Weather conditions during the survey

Date:	29/08/2023
Temperature	18°C
Humidity	64%
Cloud Cover	100%
Wind	9mph
Rain	None

Table 4: PRA Results

Feature	Description	Photographs
Bat foraging and commuting habitat	The site contains a large vegetated garden on all sides of the main house, which includes areas of grass, shrubs and trees, which can provide foraging areas for bats close by. There are other vegetated gardens to the west and south. To the north of the site are large mature stands of pines, which act as a buffer between the residential houses and the M27 road north. This line of trees follows the road for several Kms in an east-to-west direction and could provide a commuting route for dispersing bats in the area. Directly over the M27 to the north are more expanses of woodland.	
B1 – overview and southern elevation	B1 is a large, detached, two-storey residential dwelling. It is constructed out of red brick- with cement tiles on a hipped roof. The eastern half of the building also has a wall of hanging cement tiles. There are two red-brick chimneys in this building. There are installed solar panels on the southern elevation. The soffit boxes are wooden and have no vents. The windows and doors are all PVC. These photographs are of the southern elevation of B1. No roosting features were observed on the main roof elevation, or within the hanging tiles to the east. There was a noted tile feature on the lower porch roof, as circled in blue and shown in the close-up photograph. A tile feature like this could be used by crevice-dwelling bat species such as pipistrelle, which are noted on a nearby EPSL within 200m from the site. No roost features were identified underneath this porch area. No evidence of roosting bats, such as droppings was seen under the porch or at the base of the walls or on any hanging tiles.	 

B1 – eastern elevation	These photographs are of the eastern elevation of B1, which has hanging tiles on the upper section of the wall Unlike the southern elevation, there are some roost features within the hanging tiles, with gaps identified to the south of the window seen (circled in blue) as well as lifting on the corner tiles where they do not sit flushed on each other (circled in red) These features are suitable for supporting crevice-dwelling bat species. No droppings were seen on the tiles under these features. No droppings were found at the base of the wall, however, the plant growth at the base of the walls would make finding evidence more restrictive.	 

		 arbtech Aug 29,2023 02:10:48 pm

B1 – northern elevation	These photographs show the northern elevation of B1. There were no bat roost features observed at this elevation, other than the corner tiles observed on the hanging-tile wall in the northeast corner as previously listed. There are no gaps around the soffit area, and the flashing around the chimney had no suitable lifting for supporting roosting bats. No evidence such as bat droppings was observed at this elevationor resting on the small lean-to roof area. This elevation will see the addition of a new two-storey extension	 
B1 – western elevation	Due to an error, the image of the western elevation failed to produce correctly and cannot be included. There were no features observed at the western elevation of B1. There were no gaps in the soffit area, within the field and hip tiles, or around the chimney flashing that would support roosting bats.	The photograph failed to produce correctly.

	This elevation has no hanging tiles. There was no bat-dropping evidence observed on the walls or base of the floor at this elevation.	

B1 – interior	These photographs show the interior of B1, which is a cornered loft following the roof outline. The top photograph is of the northeastern area of the loft, while the bottom photograph is of the southwest area, close to the access hatch, where items are stored. The loft has exposed rafters and ridge lines, with supporting diagonal struts. The lining is a non-breathable membrane, and is in good condition, except for one small corner in the southern corner, where this has peeled back enough to expose tiles underneath. As the third photograph shows (circled in blue) The insulation is a loose wool roll, which was seen in three different ages of layers, reaching 50cm+ thick in places. The top layer (as these photographs show) appeared to be a recent installation. This loft space measured 2m in height, 10m long at its longest length and 8m at its widest. At the time of the survey internal temperatures measured 25ºC and 65% humidity. A search was conducted for any evidence of bat roosting activity, paying attention to key areas, such as under the ridge line, at the wall ends, and around the chimney areas. A search in these key areas under the layers of insulation was also conducted- no evidence was found.	 

		
B1 – suitability assessment	A small number of droppings was seen in the most southern area of the loft in proximity to the lining tear, resting on the area of wood circled opposite, directly under the ridge line. Less than 10 droppings were found in this area, and had the size, shape and crumble texture indicative of bat droppings. A search under the insulation on either side did not yield any further droppings to indicate historic use. Other droppings found in the loft area suggest rodents such as mice. A sample of the droppings was taken for DNA testing and labelled as SI on the survey map in Appendix 3. DNA results confirm the pile of droppings belongs to a common pipistrelle bat. The low volume of droppings only found in one location could suggest these have fallen from a small space in the lining, as this species typically does not roost in open loft areas.	

B1 - breeding birds and other incidental observations	No bird nesting behaviour was observed at the time of the survey, no nests were seen under the solar panels which can be a common place for species like pigeons. Roost features identified for bats, were deemed not suitable to also support nesting birds, as tile features on the hanging wall were not lifted enough to allow bird access. Inside the loft of B1, there was a wasp nest observed, but this was inactive and has already been taken care of by professionals. The photograph shows this wasp nest.	

B2 overall and East elevation	B2 is a detached one-storey garage in the northwest corner of the site. It is a hipped roof structure with clay tiled roof. The soffit, windows and doors are wooden. Plans will include an annexe extension and conversion of B2 into residential. These photographs are of the eastern elevation of B2. There is a lot of lifting and slippage of the clay tiles at this elevation. The close-up photograph shows the condition of these tiles. The lifting seen across the field tiles is suitable for supporting roosting bats, in particular crevice-dwelling bat species. Multiple tiles was seen at this elevation that were concluded suitable roost habitat. No bat droppings were seen on these tiles as well as on the walls, or around window or door frames.	 

B2- Northern elevation.	These photographs are of the northern elevation of B2. Views of this elevation were limited from the ground, due to the plant growth. Like the east elevation, the roof field tiles are in poor condition with many lifted or slip tiles providing suitable roosting space for supporting bats. The close-up photograph demonstrates this. This elevation had fewer suitable tiles, with a portion of this roof covered in thick moss and lichen growth. This is likely due to a lack of direct sunlight and increased damp, shading and plant material from the adjacent trees at this elevation.	 

B2- Southern elevation.	This photograph is of the southern elevation of B2, as with the north and east elevation, there is lifting of tiles across this roof elevation that could support roosting bats. There were no droppings seen on these tiles or around the garage door area. There are no gaps around the garage door that would allow bats to access inside.	
B2 - Interior	This photograph shows the interior of B2 which is currently being used as a storage area. The lining inside the building is a non-breathable membrane that is in good condition with no observed access point into this space. No droppings were found within this space, either on stored items or on shelving units that would indicate bats roosting inside the garage. This space is accessed daily, due to access to stored freezers. This involves turning on all internal lights to do so, resulting in a lot of regular light disturbance.	
B2- Suitability assessment.	B2 overall has a moderate value for roosting bats. The value is due to the external tiles for crevice-dwelling bats. There are over twenty tiles seen on three of the observable elevations of B2 that could support roosting bats. This building is located directly adjacent to the mature tree line which could be a direct access to a commuting route.	

B2- Nesting bird and other observations	No active nesting behaviour was observed at the time of the survey, but it is noted to be the time of the season where most nesting activity is over. The spacing under some of the lifted tiles could also support nesting birds in these areas, in particular, smaller birds like wrens, sparrows or tits and therefore nesting material would not be observed.

4.0 Conclusions, Impacts and Recommendations

Taking the desk study and field survey results into account, Table 5 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise for front and side extensions to the current residential dwelling as well as garage extensions.

Table 5: Evaluation of the site for bats and any other ecological constraints

Building	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities[1]
Roosting bats B1	Building 1 has a confirmed roost, as identified by bat droppings found in the loft which are confirmed to be from a common pipistrelle. There is a low volume of droppings (<10) which is suggestive of a single bat entering the loft or a small number of droppings have come into the loft from a larger accumulation between the roof tiles and roof membrane above. The house has multiple external roost features for supporting this species, such as a gap under a tile on the porch roof, as well as	The proposed development will result in the extensions and alterations to this building, which will be two-storey in height. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. Infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Four surveyors are required to provide full coverage of the building. An EPSL application to Natural England will be required. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission. A Material Changes Check will be required within three months of the EPSL submission, if no survey work has been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.	To be confirmed upon completion of the surveys.

[1] The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	hanging tiles on the eastern half of the building.			
Roosting bats B2	Building 2 has moderate value for roosting bats. There are lifted tiles on all viewable roof elevations that are suitable for supporting roosting crevice-dwelling bats. The close proximity of the building to B1, which has evidence of roosting bats, and the presence of an EPSL for common pipistrelle bats 200m of the site, this greatly increases the likelihood of bats using this building.	The proposed development will result in the alterations to this building to attach an annexe and will include the repairs to the roof space of this building. This could result in damage and destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely absence of a bat roost in the building. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. Infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. An additional two surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building one additional survey may be required to characterise the roost and to inform an EPSL application to Natural England. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	
Foraging and commuting bats	The garden surrounding the site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. The mature tree line north of the site, which acts as a buffer between the	The proposed development will result in the garden clearance work with some area of grass and shrubs lost for the new extension and annexe. However, the mature tree line and areas of garden on the site will be retained. The extensions will bring light spill onto the northern tree line closer and may include the use of external lights.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: Light spill on to the mature tree line north of the site should be avoided. Use narrow spectrum light sources to lower the range of species affected by lighting. Use light sources that emit minimal ultra-violet light. Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: Planting of native, shrub to increase foraging opportunities, especially to replace those removed

	residential houses and the M27 adjacent, would also be used by commuting and foraging bats.		should be of a warm / neutral colour temperature <4,200 kelvin. Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.	
Nesting birds	There was no nesting activity observed on B1, such as under the solar panels. Hanging tile features identified for bats are not lifted enough to support nesting birds. The lifted tiles of B2 are suitable for supporting nesting birds underneath, for species such as wrens, robins and tits.	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests that may be within B2	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. .	The installation of a minimum of two bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Sparrow Terrace (buildings) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes

	No nest material was spotted at the time of the survey, but if nests are hidden under tiles this is unlikely to be spotted.			are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the new B1 extension during construction.
Other ecological constraints	None identified.	N/A	N/A	N/A

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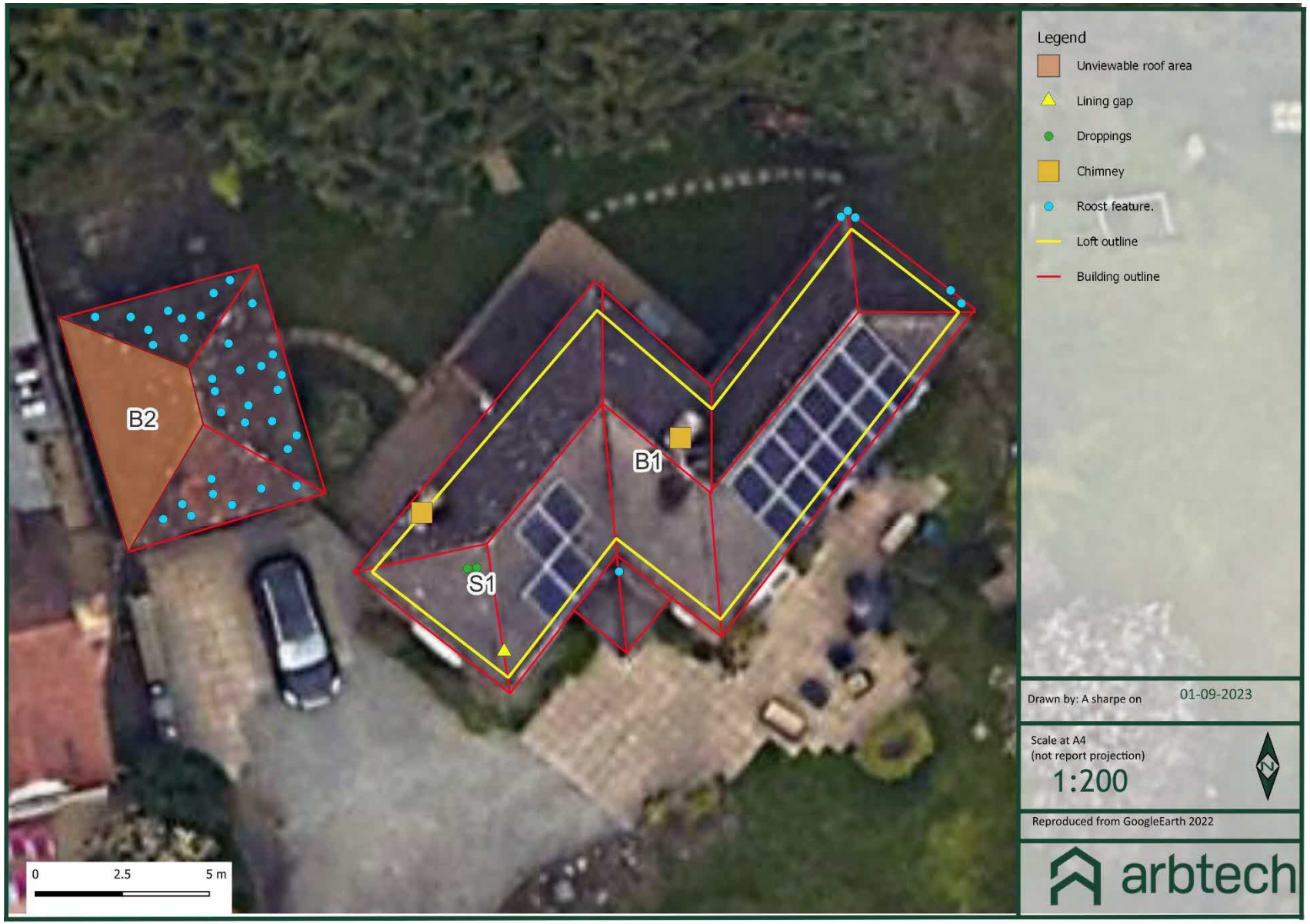
Appendix 1: Proposed Development Plan

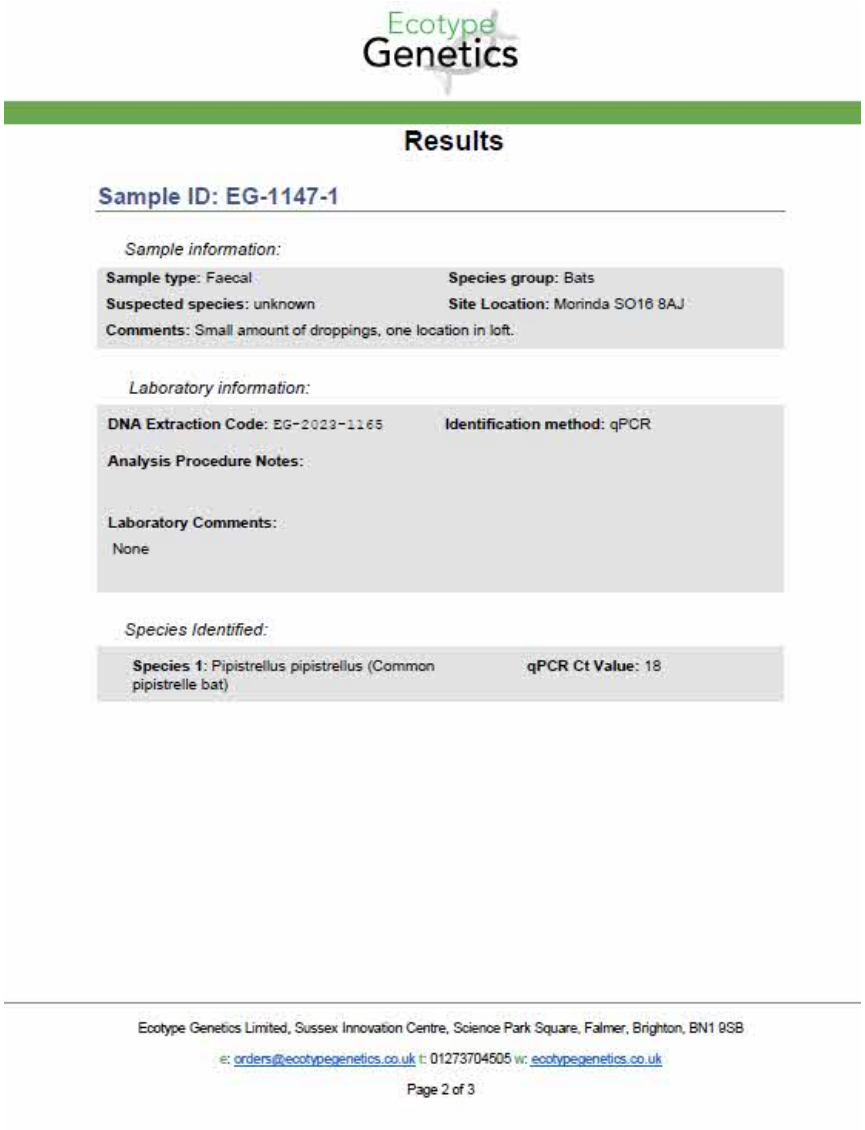
Appendix 2: Site Location Plan

Appendix 3a: PRA Plan



Appendix 3b: Proposed BERS Plan

Appendix 4: DNA results.



Ecotype Genetics

Results

Sample ID: EG-1147-1

Sample information:

Sample type: Faecal
Species group: Bats
Suspected species: unknown
Site Location: Morinda SO16 8AJ
Comments: Small amount of droppings, one location in loft.

Laboratory information:

DNA Extraction Code: EG-2023-1165
Identification method: qPCR
Analysis Procedure Notes:

Laboratory Comments:
None

Species Identified:

Species 1: Pipistrellus pipistrellus (Common pipistrelle bat)
qPCR Ct Value: 18

Ecotype Genetics Limited, Sussex Innovation Centre, Science Park Square, Falmer, Brighton, BN1 9SB
e: orders@ecotypegenetics.co.uk t: 01273704505 w: ecotypegenetics.co.uk
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Appendix 5: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

(a) Deliberately captures, injures or kills any wild animal of a European protected species,

(b) Deliberately disturbs wild animals of any such species,

(c) Deliberately takes or destroys the eggs of such an animal, or

(d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

(a) To impair their ability:

(i) To survive, to breed or reproduce, or to rear or nurture their young; or

(ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

Intentional or reckless disturbance (at any level)

Intentional or reckless obstruction of access to any place of shelter or protection

Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 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'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

LOCAL PLANNING POLICY

Test valley Borough Local plan 2011-2019

The Test Valley Borough Local Plan can be viewed here: https://www.testvalley.gov.uk/planning-and-building/planningpolicy/local-development-framework/dpd

The following planning policies have implications for developers in relation to bats:

[Policy E5]

Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or geological conservation interests, either directly or indirectly, will not be permitted unless:
a) the need for, and benefits of, the development in the proposed location outweighs the adverse effect on the relevant biodiversity interest;
b) it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the biodiversity interests; and
c) measures can be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for the adverse effects likely to result from development.
The habitats and species of importance to biodiversity and sites of geological interest considered in relation to points a) to c) comprise:
Sites of Special Scientific Interest (SSSIs);
legally protected species;
Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs);
priority habitats and species listed in the national and local Biodiversity Action Plans99;
habitats and species of principal importance for the conservation of biodiversity in England100;
Trees, woodlands, ancient woodland (including semi-natural and replanted woodland), aged and veteran trees, and hedgerows; and
features of the landscape that function as 'stepping stones' or form part of a wider network of sites by virtue of their coherent ecological structure or function or are of importance for the migration, dispersal and genetic exchange of wild species.

Test Valley Local BAP 2008

The Test Valley Local BAP can be viewed here: https://www.testvalley.gov.uk/communityandleisure/naturereserves/biodiversity-action-plan

The following bat species are included in the plan:

Soprano and common pipistrelle

Brown long-eared bat.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

The purpose of the work meets one of those listed in the Habitats Regulations (see below);

That there is no satisfactory alternative;

That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;

Policy 2; provides greater flexibility in the location of compensatory habitat;

Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,

Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.