



BAT SURVEY

Rapallo, Dipe Lane, East Boldon, NE36 0PQ



May 2021 – Version 2

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Disclaimer:

Ecology surveys are carried out in good faith, to the relevant professional guidelines. Where variation from these guidelines is necessary, this is outlined in the report. Any comments regarding condition of buildings or trees are in relation to the use of the building/tree by bats and birds, and should not be considered as a building survey or arboricultural opinion on the condition of those features.

The client should be aware that the mitigation recommendations in ecology reports are often translated directly into planning conditions, and as such these should be studied closely and agreed with any contractors in advance of site works commencing.

It is the client's responsibility to commission, in writing, any additional survey effort/licence requirements detailed within this report with RH Ecological Services.

Mitigation recommendations should be clearly marked on the Architect's Plans or included in any Method Statements submitted with any planning or other consent.

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PRELIMINARY ROOST ASSESSMENT RAPALLO, DIPE LANE, EAST BOLDON, NE36 0PQ

Summary

A bat and bird assessment at 'Rapallo' Dipe Lane, East Boldon (NZ 35933 61080) was produced to support a planning application for extension and renovation works to the property. No planning application reference is currently available.

This consisted of a Preliminary Roost Assessment and a dusk emergence survey, which although no signs of bats were noted; however the property has potential features that could be used by roosting bats, primarily slipped/misaligned tiles and raised roof flashing.

The property was initially deemed to have low-medium potential for roosting bats, the detached garage is deemed to have negligible potential. Features suitable for roosting bats will be likely lost during the development.

A single bat dusk (emergence) survey was undertaken in May 2021. There was very little bat activity and no bats emerged from the property. No further survey effort is deemed necessary.

Durham Bat Group records have been requested and will be discussed once received.

There is potential for birds to nest on the property and garage, however no signs were noted.

Integrated features suitable for bats (such as bat access tiles) and birds are recommended to be incorporated into the proposed extension to ensure No Net Loss of bat roost potential.

Due to the nature of the development, an extension to an existing residential dwelling, negligible impact is expected on any Designated [wildlife] Sites within 2km. There are no Priority Habitats on/adjacent to the development site. Therefore no impacts are expected.

Lighting on site should be minimised and directional and follow the BCT/ILP guidance¹. It should be designed to face away from any other roosts found on site. Any nearby trees should also be kept in darkness.

No further survey work is deemed necessary. Any potential impacts can be suitably dealt with following the Precautionary Working Methods provided within this report (**appendix 1**).

This report is valid for 2 years.

An updated preliminary assessment will be required should work not commence by May 2023.

¹ ILP/BCT (2018)

1. Introduction and proposed works

The proposal is for a two-storey side and single-storey rear extension to the property. The rear single-storey sunroom and detached garage will be required to be demolished to facilitate this. The client intends to put a new roof on the property. No planning application reference is currently available. Aerial imagery is shown in **figure 1** and proposed plans are shown in **figure 2**.



Figure 1. Site location - aerial view².

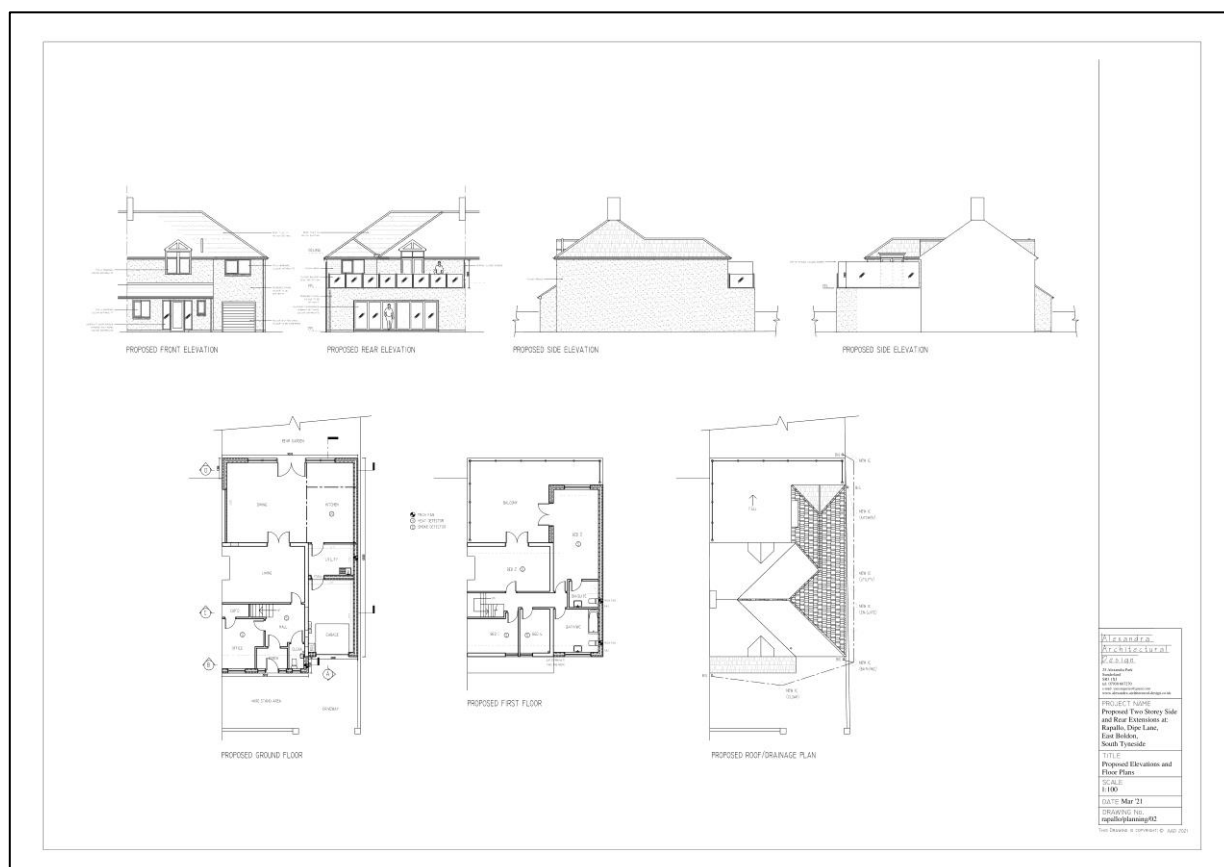


Figure 2. Proposed development plans.

² Reproduced with permission from Google Earth (2021).

2. Relevant legislation

The applicable legislation and policies with regard to bats and birds are:

- Conservation of Habitats and Species Regulations (2017)
- Countryside and Rights of Way Act (2000)
- Directive 79/409/EEC on the Conservation of Wild Birds – ‘The Birds Directive’
- Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora – ‘The Habitats Directive’
- National Planning Policy Framework (NPPF)
- Natura 2000
- Natural Environment and Rural Communities Act (2006)
- Wildlife and Countryside Act (1981)

Further details can be found in **appendix 2**.

3. Methodology

3.1 Desktop survey

The area was surveyed using Ordnance Survey Explorer maps (1:25,000 scale) and Google Earth Pro with habitat features of value to bats such as watercourses, woodland and hedgerows noted.

Bat data records have been requested from Durham Bat Group (21st April 2021).

Natural England’s ‘Magic on the Map’ website was accessed for details of the citations for the designated sites and EPS licensing. The JNCC website³ and Natural England websites provided further information on site designations.

3.2 Daylight assessment

The daylight assessment ‘Preliminary Roost Assessment’ was carried out **22nd April 2021**. This was conducted according to the Chartered Institute of Ecology and Environmental Management’s Guidelines for Preliminary Ecological Appraisal (CIEEM, 2012) and the Bat Conservation Trust’s Bat Surveys Good Practice Guidelines (2016) on Preliminary Roost Assessment.

The weather was 14°C and sunny with a slight breeze.

The surveyor assessed the buildings for signs of bats and birds. The property and detached garage were thoroughly checked both internally and externally for any signs of bats; including live or dead bats, droppings, feeding remains, clawing or scuff/grease/urine marks at roost entrances, and potential roost features such as cavities or gaps in roofing tiles, soffits, loose mortar *etc.* The surveyor used a headtorch, powerful compact torch, binoculars and inspection camera (endoscope).

³ <http://jncc.defra.gov.uk>

3.3 Bat activity survey

The bat dusk activity survey started ~20 minutes before sunset and ended 1.5 hours after in optimal weather conditions and at a suitable time of year. The survey was conducted in accordance with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists, Good Practice Guidelines* (3rd edition, 2016) except where indicated.

Surveyors are placed around the site to ensure that all sides and features of the buildings are visible. On site, the time bats were first encountered, the species of bat where possible and information on direction of flight and behaviour are recorded. Where bats are seen entering or exiting the building the exact location is logged onto the site plan. The data is recorded by surveyors in the field on data sheets and plans of the site, or *via* voice recordings.

The aim is to build a picture of general bat activity whilst focusing on the buildings in question, and as such every individual bat is not recorded where it does not add to the understanding of bats' use of the building in question. Bat calls are recorded for later analysis on all surveys. Surveyors used a variety of bat detectors including a Bat Box Duet, Pettersson D230, Anabat SD2/Express or Scout and Echo Meter Touch.

3.4 Surveyor

The daylight site visit and report were compiled by Rachel Hepburn, an experienced ecologist and an associate member of the CIEEM since 2013 with over 13 years' experience in ecological surveying. She holds Natural England Licences for bat surveys (2015-12969-CLS-CLS) and great crested newt surveys (2016-19907-CLS-CLS).

4. Site description

Rapallo (NZ 35933 61080) lies at the southern end of East Boldon. The property is surrounded by residential housing, most of which have gardens laid to lawn with scattered mature trees, with the exception of to the south to which lie tennis courts with grassland agricultural fields and the wider countryside beyond. The River Don lies ~710 metres north west.



Figure 3. Surrounding area⁴.

⁴ Reproduced with permission from Google Earth (2021).

5. Desktop survey

5.1 Designated Sites

Designated [wildlife] Sites were checked on 'MAGiC on the Map'⁵. There are four within 2km:

Designated Site	Proximity
West Farm Meadow, Boldon Site of Special Scientific Interest (SSSI)	~920 metres north
Tilsheds Local Nature Reserve (LNR)	~1.15km north east
Station Burn LNR	~1.7km north west
Hylton Dene LNR	~1.8km south

West Farm Meadow, Boldon SSSI is important as one of very few surviving semi-natural hay meadows in the coastal plain between the Rivers Tyne and Tees.

Tilsheds LNR is named after the former brick and tile works that used the natural clay deposits from here as their raw material. Throughout the 1990s the LNR was created by the excavation of a pond and marsh, and the laying of a substantial network of paths. Thousands of native trees and shrubs were also planted. The pond now is home to frogs, toads, newts and dragonflies. There are also breeding swans, coots and moorhens.

Station Burn LNR (and the adjacent Colliery Wood LNR) has the River Don flowing through it. Water vole and kingfisher are recorded here. A series of ponds holds a multitude of life, including frogs, dragonflies and great diving beetles. The woodland is home to a variety of birds.

Hylton Dene LNR is an area through which the Hylton Dene Burn flows. There is a fishing pond, marshy areas and a wildflower meadow.

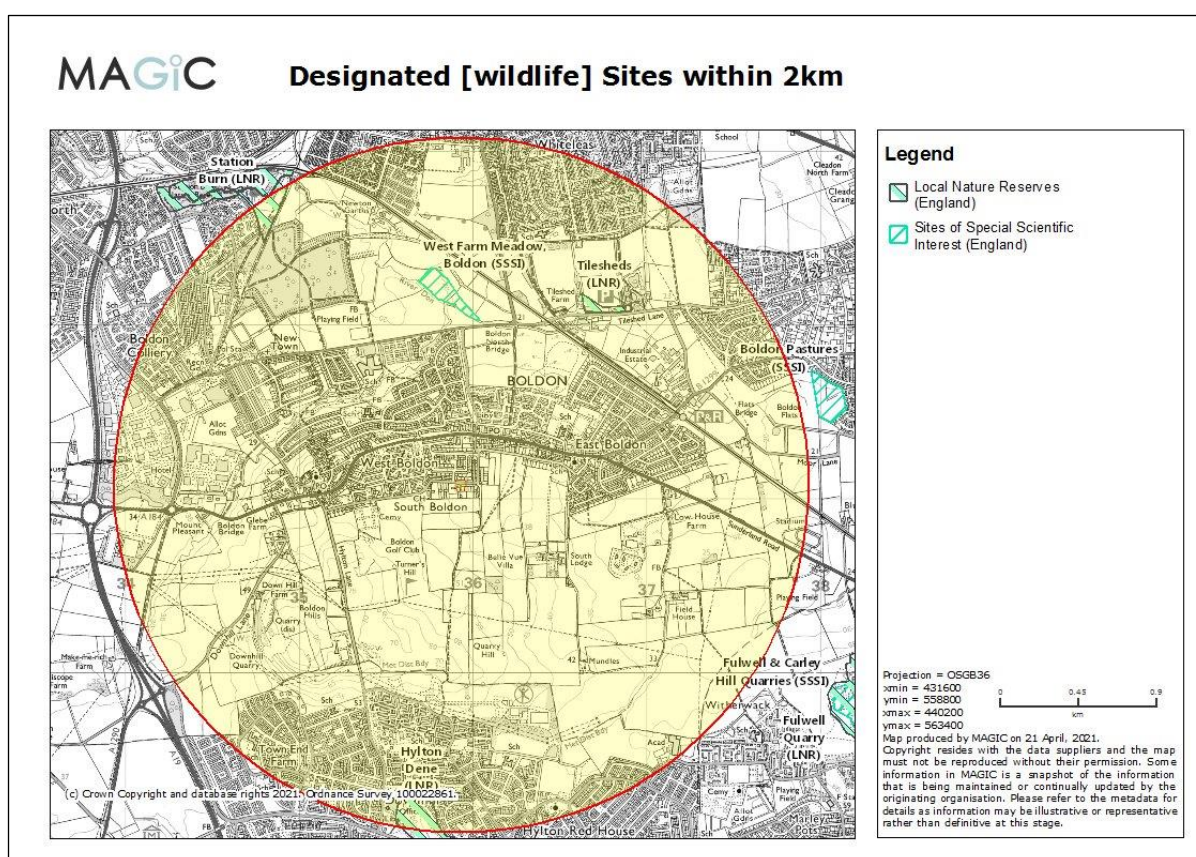


Figure 4. Designated [wildlife] Sites within 2km.

⁵ magic.defra.gov.uk

The development site falls within the SSSI Impact Risk Zones. Potential impacts are discussed in the table below. Due to the nature of the development, an extension to an existing residential property, no impacts are expected.

Category	Impact	Description
Infrastructure	N/A	Airports, helipads and other aviation proposals.
Wind and solar energy	N/A	Solar schemes with footprint > 0.5ha, all wind turbines.
Minerals, oil and gas	N/A	Planning applications for quarries.
Residential	N/A	Residential development of 10 units or more.
Air pollution	N/A	Any industrial/agricultural development that could cause air pollution.
Combustion	N/A	General combustion processes >20MW energy input.
Waste	N/A	Landfill.
Composting	N/A	Any composting proposal with more than 500 tonnes maximum annual operational throughput.

5.2 Priority Habitats

'MAGiC on the Map' was checked for Priority Habitats (Habitats of Principal Importance). These are habitats listed under Section 41 of the Natural Environment and Rural Communities Act 2006.

There are no Priority Habitats on/adjacent to the development site. The following are found within 2km of the site:

Habitat	Proximity
Deciduous woodland	~490 metres south west
Open Mosaic Habitats on Previously Developed Land ⁶	~950 metres south east
Lowland fens	~990 metres north east
Lowland meadows	~1.8km west

Due to the nature of the development, an extension to an existing residential property, no impacts are expected.

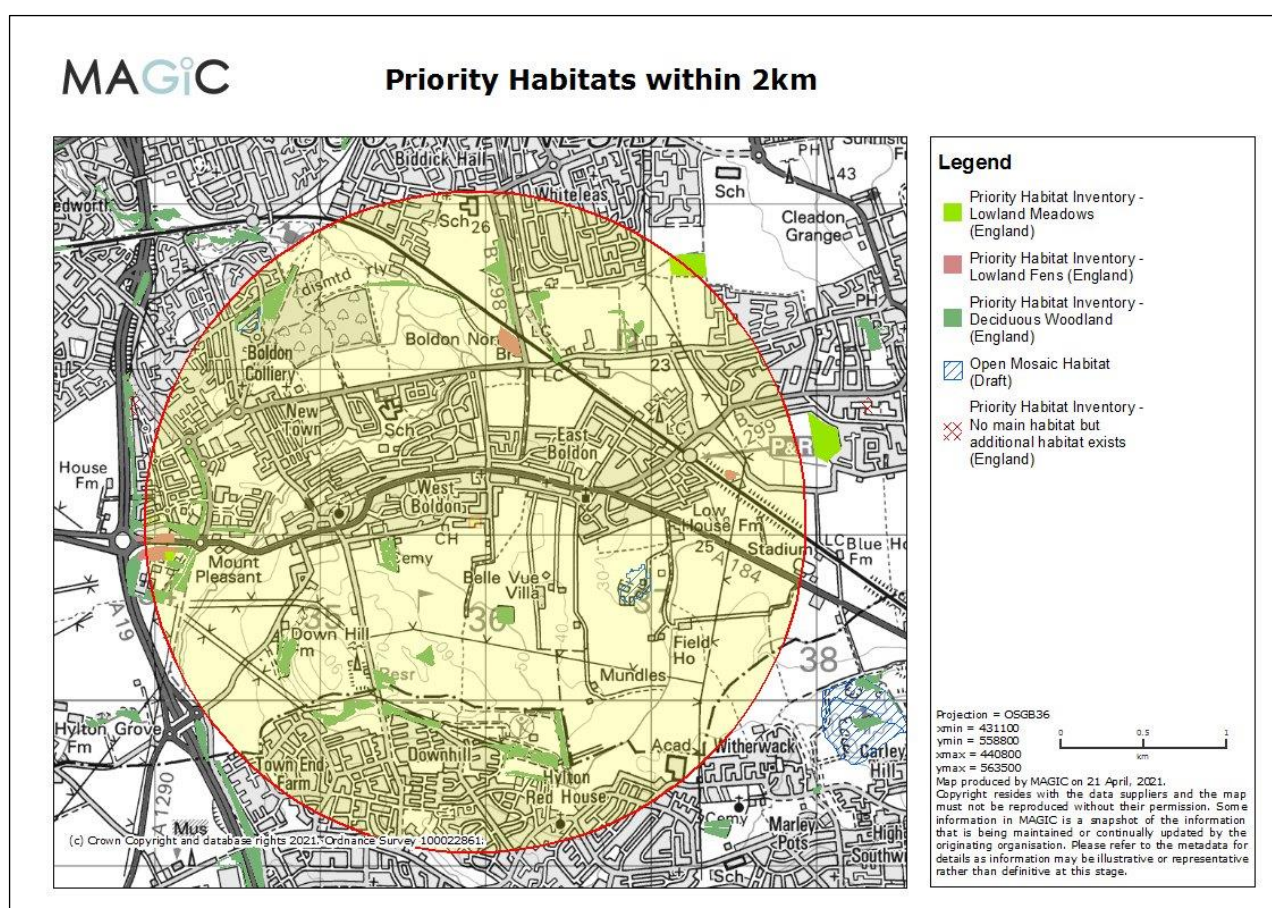


Figure 5. Priority Habitats.

⁶ Draft mapping.

5.3 EPSLs and bat records

Durham Bat Group records have been requested and will be discussed once received. The full dataset can be made available upon request.

'MAGiC on the Map' was checked for any granted Endangered and Protected Species Licences (EPSLs) within 2km. There were no results within 2km.

There are no Great Crested Newt (GCN) Class Licence Returns records and no records for Natural England Pond Surveys, carried out between 2017 and 2019.

5.4 Local planning portal

The property has no planning history.

The local planning portal (South Tyneside Council) was checked for nearby (within ~500 metres) planning applications that have reference to ecological assessment. *References to individual trees away from the development site have been omitted.*

Address	Michaelford, Dipe Lane, East Boldon, NE36 0PQ
Planning application	ST/0987/16/HFUL (2016) – Family lounge extension to the side/rear elevation - the previously approved extension under application ref: ST/1018/15/HFUL was flush with the existing rear house wall.
Proximity	Adjacent property to the west.

An Arboricultural Impact Assessment – Tree Protection Plan was produced.

Address	Idylwild, Dipe Lane East Boldon, NE36 0PH
Planning application	ST/0904/19/HFUL (2019) – Pitched roof to replace existing flat roof over bay window. Demolition of existing garage. Two-storey side extension. Single-storey rear/side extension. Pitched roof to replace existing flat roof over utility room. Render finish to whole property and extension.
Proximity	~110 metres north east.

Hepburn, R. (2019). *Preliminary Ecological Appraisal - Idylwild, Dipe Lane East Boldon, NE36 0PH*. RH Ecological Services.

The property was inspected for bats and no signs were noted. Two potential gaps were noted that have the potential for bat and/or bird access:

- Gap on front elevation of the garage – remnant bird's nest was present within this. A swift nest brick should be incorporated into the garage at a similar elevation.
- Gap into soffit box on front elevation - this should be left *in situ* and 'as is'.

The building has potential for birds to nest on it. If construction works take place within the bird breeding season (March to August inclusive) then the project ecologist should confirm that no further nesting birds are present in/on the building within 48 hours of works commencing.

Any external lighting should be directional and away from any habitat or potential roosting features, following the guidance from ILP/BCT (2018) – 'Bats and artificial lighting in the UK'.

Non-Bitumen (Breathable) Roofing Membranes should not be used within the buildings on site as these are known to cause death/injury to bats by entanglement.

A Reasonable Avoidance Measures (RAMS) approach is proposed, this is provided as Precautionary Working Method statement.

Address	Kymel House, Boker Lane, East Boldon, NE36 0RY
Planning application	ST/0956/20/FUL (2020) – Demolition of offices and construction of six terraced dwellings and associated works.
Proximity	~340 metres north

Perkins, M. (2021). *Kymel House, East Boldon (R02)*. E3 Ecology Ltd.

A bat risk assessment and single bat emergence survey was undertaken.

The dusk emergence survey on 22nd September recorded no bats emerging from the building, with a very low level of activity attributable to a single common pipistrelle commuting and foraging along the road at the south of the site. Maternity use of the building is not considered likely given the results of the survey, the locations of the structure and the absence of significant field signs. The potential roosting features recorded are not considered suitable for hibernating bats. Overall, the site is considered to be of low value for bats.

Address	Land off Hindmarch Drive, West Boldon, NE36 0HE
Planning application	ST/0904/20/LAA (2020) – Development of 10 dwellings with associated roads, paths, landscaping and ancillary works.
Proximity	~400 metres north west

Morrison, S. (2018). *Preliminary Ecological Appraisal of Land at Hindmarch Drive, Boldon, South Tyneside*. Dendra Consulting Ltd.

The majority of the survey site consists of amenity grassland and bare ground, bordered by boundary fencing and some scattered trees. These habitats are all locally common and widespread, are of limited ecological value. Overall, only limited opportunities for protected species are offered by the site.

A small patch of *Cotoneaster* is present in the central section of the site. This plant is listed as an invasive plant species under Schedule 9 (part ii) of the Wildlife and Countryside Act 1981 (as amended), making it an offence to cause the spread or relocation of this plant into the wild. Controlled removal and disposal of this plant will be required prior to the proposed works.

A Pre-Development Arboricultural Report by Dendra was also produced.

6. Site assessment

6.1 Description

The property is a semi-detached brick-built property with a detached brick-built garage. Both buildings have tiled pitched roofs. A small, glazed panel is present on the front elevation at the level of the loft void on the main house. A single-storey flat roofed section is present to the rear. An open porch area is present on the front elevation. The house has recently been internally gutted by the client.

The property has a driveway to the front and a garden laid to lawn to the rear (**figure 20**). Species present within the garden are of no particular note.

The building is in a reasonable state of repair with open soffits present. Several gaps however were noted where the roofing tiles have slipped or have raised up (**figures 9-12**). Such gaps have the potential to be used by bats to roost underneath or to access the loft void. The leading flashing present around the pitched roofing area (**figure 14**) of the upper floor windows is raised, creating gaps, which could potentially be used by bats.

Internally a single loft void is present (**figure 15**). Insulation was laid down and there is no underfelt present beneath the tiles. The single-glazed roof window panel at the front is heavily cobwebbed. Numerous dead flies are present (**figure 16**). Area of light ingress could be seen.

The garage (**figures and 18**) is in a good state of repair with an 'up-and-over' door. It has wooden soffit boxes present, which are flush to the wall with no gaps noted. Internally the space is open to the tiles, which some wooden boarding present at both ends, creating storage areas (**figure 19**). These were checked for signs of bats and birds. There were none to note. The garage is thought to have negligible potential to support roosting bats.



Figure 6. Annotated diagram of gaps noted which are potential bat roosting features.

6.2 Photos



Figure 7. Front and side elevation of the property.



Figure 8. Rear elevations of house and garage.



Figure 9. Gaps present just below ridge tiles on rear elevation.

Figure 10. Gaps present along ridge tiles on the rear elevation.



Figure 11. Gaps present around misaligned/slipped tiles on front elevation.

Figure 12. Gable end, with a missing tile lower down.





Figure 13. Close-up of roofline to the front of the property.



Figure 14. Lead flashing raised around upper floor window on rear elevation.



Figure 15. Loft void within property.

Figure 16. Cobwebs present within loft voids, particularly around the small window.



Figure 17. Garage – front and side elevations.

Figure 18. Garage internally.





Figure 19. Storage area above garage space.



Figure 20. Rear garage looking south.

7. Bat survey

The dusk bat survey found no bats emerging from the property or the detached garage. There was very little bat activity, with only two common pipistrelle bats noted flying past the site early in the survey period.

Information on timings and weather conditions are provided in the table below:

Date	13 th May 2021
Survey times	20:44 – 22:14
Sunset	21:04
Weather	9°C, slight breeze, dry

The survey only recorded two common pipistrelle bats flying from north to south down the lane to the west of the property.

No bats emerged from the property or associated garage.

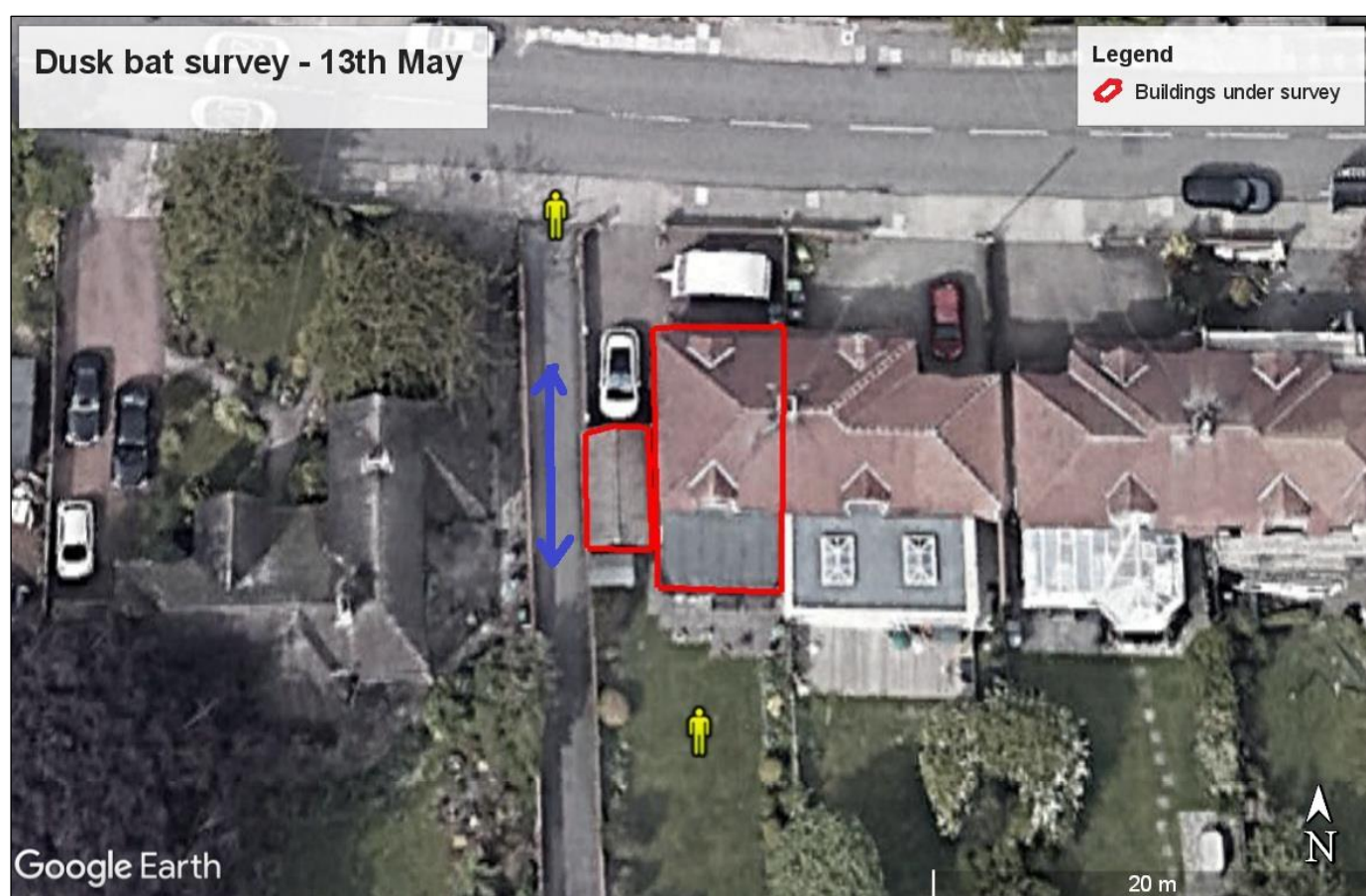


Figure 21. Dusk bat survey flight map (flight line in blue).

8. Impact assessment and proposed mitigation

8.1 Summary

- The property was initially deemed to have low-medium potential for roosting bats, the detached garage is deemed to have negligible potential. Features suitable for roosting bats will be likely lost during the development.
- **A single bat dusk (emergence) survey was undertaken in May 2021. There was very little bat activity and no bats emerged from the property.** No further survey effort is deemed necessary.
- **There is potential for birds to nest** on the buildings.
- Integrated features suitable for bats (such as bat access tiles) and birds are recommended to be incorporated into the proposed extension to ensure No Net Loss of bat roost potential.
- Due to the nature of the development, an extension to an existing residential dwelling, negligible impact is expected on any Designated [wildlife] Sites within 2km. There are no Priority Habitats on/adjacent to the development site. Therefore no impacts are expected.
- Aside from bats, any other potential impacts can be suitably dealt with following the Precautionary Working Methods which are provided within this report (**appendix 1**).

Factors supporting the recommendations are discussed in the sections below:

8.2 Limitations

The survey comprised a single daylight visit, just before the active bat survey season and therefore signs of any roosting bats may not be present.

8.3 Bats

The property was initially deemed to have low-medium potential for roosting bats, the detached garage is deemed to have negligible potential. No signs of bats were noted; however the property has potential features that could be used by roosting bats, primarily slipped/misaligned tiles and raised roof flashing. Features suitable for roosting bats will be likely lost during the development.

A single bat dusk (emergence) survey was undertaken in May 2021. There was very little bat activity and no bats emerged from the property. No further survey effort is deemed necessary.

The [initial] Assessment was made based on the Bat Conservation Trust (2016) 'Bat Surveys Good Practice Guidelines'. The full assessment tables can be found in **appendix 3**.

Overall suitability for bats	Habitat and settings	Moderate
	Building	Low-medium
	External	Low-medium
Potential suitability of the development site for bats	Commuting and foraging habitats	Low
	Roosting habitats	Low

Durham Bat Group records have been requested and will be discussed once received.

Potential impacts

- Disturbance to roosting bats.
- Loss of potential roosting areas.
- Disturbance, killing or injury to bats which may use the building as a roost.
- Disturbance, damage or destruction of a bat roost, if there is one present.

Actions and mitigation

- Roofing features such the tiles and flashing to be removed by hand, carefully checking for bats.
- If bats or signs of bats are found, then work must stop, and the project ecologist contacted for advice.
- Lighting on site should be minimised and directional and follow the BCT/ILP guidance⁷. They should be designed to face away from any nearby trees and any roosts found on site.
- Non-Bitumen (Breathable) Roofing Membranes⁸ should not be used as these are known to cause death to bats by entanglement. Currently the only 'bat safe' roofing membrane is bitumen 1F felt that is a non-woven short-fibred construction.
- Any external paint used should be checked to ensure it will not cause harm to bats or birds.
- Integrated features suitable for bats (such as bat access tiles/integrated bat box) are recommended to be incorporated into the proposed extension to ensure No Net Loss of bat roost potential.

⁷ ILP/BCT (2018)

⁸ www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-roofing-membranes

8.4 Birds

There is potential for birds to nest on the property and garage, particularly under the open soffits on the house. However no signs were noted.

Potential impacts

- Disturbance to breeding birds.
- Destruction of active nests, causing death or injury to fledging birds.
- Temporary loss of nesting provision for birds during the construction phase.

Actions and mitigation

- Site contractors must be made aware of the law around the bird nesting season (March-August inclusive).
- Construction works should avoid the bird nesting season unless a suitably qualified ecologist has confirmed that no nesting birds are present 48 hours prior to the works commencing.
- Integrated nesting provision for birds should be included within the renovation to ensure No Net Loss of nesting provision.

8.5 Priority Habitats and Designated Sites

There are no Priority Habitats on/adjacent to the development site. Therefore no impacts are expected.

There are four Designated [wildlife] Sites within 2km, the nearest being West Farm Meadow, Boldon SSSI, which lies approximately 920 metres south. Due to the nature of the development, an extension to an existing residential dwelling, negligible impact is expected on any Designated [wildlife] Sites within 2km.

8.6 Other species and habitats

Hedgehog may be present in the garden.

Potential impacts

- Site run-off during the construction phase.
- Effect on foraging animals.
- Pollution *via* site run-off and/or materials/chemicals stored/increased traffic on site.
- Disturbance and/or injury to wildlife during the construction phase.
- Activities such as mixing cement, refuelling or storage of materials/equipment may cause significant damage to those features such as compaction or contamination.
- Pollution *via* site run-off of through discharge of water/waste during occupation of the site.
- Increased lighting levels may affect foraging and commuting routes for nocturnal animals using the trees/woodland strip.

Actions and mitigation

- All materials, fuel and equipment, if left on site, to be stored securely.
- A Pollution Prevention Plan should be put in place to prevent site run-off during the construction stage.
- Chemicals must be stored carefully and following their COSHH guidelines. All those working on site to have access to spill kits and appropriate training in their use.
- Any storage of materials on site is likely to create suitable refugia for several species and therefore should only be moved by hand.
- Any pits or holes dug during construction phase must be covered up overnight or fitted with exit ramps (scaffolding planks) for mammals, to be placed at an angle of 30° from base to top.
- Check any areas of ground thoroughly before work starts. Holes left following removal of tree stumps/rocks should also be checked.
- Remaining vegetation to be gradually reduced in size, checking for wildlife, such as small mammals.
- Any small mammals should be given chance to move away of their own accord to a place of safety or carefully remove them to a safe area nearby, preferably in vegetation, away from the working area.

9. References

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APPENDIX 1. Precautionary Working Method Statement

METHOD STATEMENT FOR CONTRACTORS RAPALLO, DIPE LANE, EAST BOLDON, NE36 0PQ

The following precautions are necessary to prevent a legal offence being committed. All species of breeding bats and breeding birds are protected by law. Deliberate or reckless disturbance of these animals is a legal offence, punishable by fines and/or imprisonment. They are intended to reduce the impact of this development on protected species. These recommendations must be followed by all of those working on the site.

Should any protected species be found, work should immediately stop, and the project ecologist contacted.

Bats commonly roost in cavity walls and roofs. They may be present under roof tiles, ridge tiles and at wall tops or within crevices. All species of bats are strictly protected by law. Damage or destruction of a bat roost is an absolute offence with a maximum penalty of a £5,000 fine per offence, up to 6 months imprisonment, and confiscation of equipment.

Birds often nest at eaves, in roofs and in soffits. All species of breeding birds, their nests (whilst being built and when in use), eggs and chicks are also protected by law.

Bats

- All works to cease immediately if bats, bat signs or nesting birds are found, and the project ecologist contacted for advice before works can proceed.
- Any external lighting should be directional away from any roosts/valuable habitat featured and follow the ILP 2018 guidance⁹. Any new external lighting will be directional, low intensity and controlled by motion sensor. It should be designed to face away from any nearby trees and any roosts found on site.
- Roofing features such the tiles and flashing to be removed by hand, carefully checking for bats.
- If bats or signs of bats are found, then work must stop, and the project ecologist contacted for advice.
- Non-Bitumen (Breathable) Roofing Membranes¹⁰ should not be used as these are known to cause death to bats by entanglement. Currently the only 'bat safe' roofing membrane is bitumen 1F felt that is a non-woven short-fibred construction.
- Any external paint used should be checked to ensure it will not cause harm to bats or birds.
- Integrated features suitable for bats (such as bat access tiles/integrated bat box) are recommended to be incorporated into the proposed extension to ensure No Net Loss of bat roost potential.

⁹ ILP/BCT (2018) Advice note 08/18 - Bats and artificial lighting in the UK - Bats and the Built Environment series.

¹⁰ www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-roofing-membranes

Birds

- Site contractors must be made aware of the law around the bird nesting season (March-August inclusive). Construction works should avoid the bird nesting season unless a suitably qualified ecologist has confirmed that no nesting birds are present 48 hours prior to the works commencing.
- Integrated nesting provision for birds should be included with the renovation designs to ensure No Net Loss of nesting provision.

Other species and habitats

- All materials, fuel and equipment, if left on site, to be stored securely.
- A Pollution Prevention Plan should be put in place to prevent site run-off during the construction stage.
- Chemicals must be stored carefully and following their COSHH guidelines. All those working on site to have access to spill kits and appropriate training in their use.
- Any storage of materials on site is likely to create suitable refugia for several species and therefore should only be moved by hand.
- Any pits or holes dug during construction phase must be covered up overnight or fitted with exit ramps (scaffolding planks) for mammals, to be placed at an angle of 30° from base to top.
- Check any areas of ground thoroughly before work starts. Holes left following removal of tree stumps/rocks should also be checked.
- Remaining vegetation to be gradually reduced in size, checking for wildlife, such as small mammals.
- Any small mammals should be given chance to move away of their own accord to a place of safety or carefully remove them to a safe area nearby, preferably in vegetation, away from the working area.
- Contractors should check any areas of ground thoroughly before starting work and before they leave.

Signed by Owners**Names****Date**.....**Signed by Contractors**

Name	Job Title	Date	Signature

APPENDIX 2. Relevant wildlife legislation

Under Section 25 (1) of the Wildlife & Countryside Act (1981) local authorities have a duty to take such steps as they consider expedient to bring to the attention of the public the provisions of Part I of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural Environment and Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purposes of conserving biodiversity, including restoring or enhancing a population or habitat.

Paragraph 109 of the National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains where possible.

In Britain all bat species and their roosts are legally protected, principally under the Conservation of Habitats and Species Regulations (2010), with additional protection under the Wildlife and Countryside Act (1981) (as amended), including under Schedule 12 of the Countryside and Rights of Way Act, 2000, which created a new offence of reckless disturbance.

The combined effect of these is that a person is guilty of an offence if they:

- Deliberately capture, injure or kill a bat.
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats. In particular where this may:
 - i. Impair their ability to survive, to breed or reproduce, or rear or nurture their young.
 - ii. Affect significantly the local distribution or abundance of the species.
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).
- Intentionally or recklessly obstruct access to a bat roost.

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird.
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird. Barn Owls are named in Schedule 1 of this Act.

APPENDIX 3. Bat suitability tables

From 'Bat Conservation Trust (2016). Bat Surveys Good Practice Guidelines'. Those in **bold** and **blue shaded boxes** apply to the building/site. Both of buildings have been assessed within these tables collectively.

Overview of site suitability for bats.				
Habitats and settings				
	Negligible	Low	Moderate	High
Habitats and cover within 200 metres.	City centre.	Open, exposed arable, amenity grass or pasture.	Hedges and trees linking site to wider countryside.	Excellent cover with mature trees and/or good hedges.
Habitats within 1km.	City centre.	Little tree cover, few hedges, arable dominated.	Semi-natural habitats e.g. trees, hedgerows.	Good network of woods, wetland and hedges.
Alternative roosts within 1km.	City centre.	Numerous alternative roost sites of a similar nature.	A number of similar buildings in the local area.	Few alternative buildings and site of good quality for roosts.
Setting.	Inner city.	Urban with little green space.	Built development with green-space, wetland, trees.	Rural Lowland with woodland and trees.
Distance to water/marsh.	>1km	500m-1000m	200m-500m	<200m
Distance to woodland/scrub.	>1km	500m-1000m	200m-500m	<200m
Distance to species-rich grassland.	>1km	500m-1000m	200m-500m	<200m
Commuting routes.	Isolated by development, major roads, large scale agriculture.	No potential flyways linking site to wider countryside.	Some potential commuting routes to and from site.	Site is well connected to surrounding area with multiple flyways.

Overview of site suitability for bats.

Buildings

	Minimal	Low	Medium	High
Age (approximate)	Modern.	Post 1940s.	1900-1940.	Pre 20th Century.
Building/complex type	Industrial complex of modern design.	Single, small building.	Several buildings, large old single structure.	Traditional farm buildings, country house, hospital.
Building – storeys	N/A	Single storey.	Multiple storeys.	Multiple storeys with large roof voids.
Stone/brick work	No detectable crevices.	Well-pointed.	Some cracks and crevices.	Poor condition, many crevices, thick walls.
Framework – timbers/steel	Modern metal frame with sheet cladding.	Timber purlins, sheet asbestos.	Timbers kingpost or similar.	Large timbers traditional joints.
Roof void	Fully sealed roof.	Small, cluttered void.	Medium, relatively open.	Large, open, interconnected.
Roof covering	Modern sheet materials and tightly sealed.	Good condition or very open not weatherproof modern sheet materials.	Some potential access routes, slates, tiles.	Uneven with gaps, not too open, stone slates.
Additional features	Very well maintained and tightly sealed.	No features with potential access.	Some features with potential access.	Hanging tiles, cladding, barge boards, soffits with access gaps.

External

Lighting	Extensive security. Lights covering much of the site.	Widespread areas above 2 lux at night.	Intermittent lights of low intensity	Minimal
Building use	Very noisy, dusty	Regular use	Intermittent use	Disused

Guidelines for assessing the potential suitability of proposed development sites for bats, based on presence of habitat features within the landscape.

Suitability	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	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 situation) or a patch of scrub.
Moderate	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	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. Site is close to and connected to known roosts.

Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting 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 by larger numbers of bats (<i>i.e.</i> unlikely to be suitable for maternity or hibernation).
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 – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
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.