Ecological Scoping Survey on Land off Small Drove, Weston, Lincolnshire.



Client: Larkfleet Homes Ltd.

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1.0 Summary

1.1 A ecological scoping survey covering the following species bat *Chiroptera* sp., bird *Aves*, Barn Owl *Tyto alba,* badger *Meles meles*, reptiles, water vole *Arvicola amphibius* and flora, the survey has been carried out on land off Small Drove, Weston, Lincolnshire.

1.2 The buildings surveyed indicated a **low probability of bat interest**, with no evidence of bat usage in either building.

1.3 No further surveys are required.

1.4 No evidence of nesting birds was recorded in the buildings.

1.5 No further surveys are required.

1.6 No evidence of barn owl using the buildings was recorded.

1.7 No further surveys are required.

1.8 The survey for badgers produced a negative result with no evidence of badgers being recorded.

1.9 No further surveys are required.

1.10 The survey for reptiles produced a negative result.

1.11 No further surveys are required.

1.12 The water vole survey recorded no evidence to suggest that water vole are using the dykes.

1.13 No further surveys are required.

1.14 The botanical survey recorded nineteen common and widespread species of plants.

1.15 Overall the site is of low ecological value.

2.0 Introduction

2.1 Hillier Ecology Ltd was commissioned by Larkfleet Homes Ltd to carry out an ecological scoping survey on land off Small Drove, Weston, Lincolnshire.

2.2 The survey was carried out to assess the ecological impact of the proposed development.

3.0 Site Details

3.1 The site is located at NGR Tf 29379249408 (Appendix 1).

3.2 The site is situated on the outskirts of the village of Weston, the site and its surrounds are made up of the following habitats:

- Dwellings
- Mature gardens
- Disused agricultural buildings
- Amenity grassland
- Arable
- Dry dykes

3.3 The low diversity of habitats is thought to be sub-optimal for supporting protected species.

3.4 The buildings are constructed of the following and shown in the photographs below:

Date	**1/9/15**			
Site Name	**Small Drove, Weston**			
Building Name/Number	**Building 1**			
Building Grid Reference	**TF 2967325084**			
Type of Building	**Disused Agricultural Building**			
Age of Building	**20th century**			
Condition of Building	**Good**			
Wall Construction	**Wood**			
Roof Construction	**Corrugate Tin**			
Roof Type	**Gable**			
Potential Access Points for Bats	**Open access**			
Roof Void	**Yes**		**No**	**X**
Insulation	**Yes**		**No**	**X**
Structure of Roof	**Unknown**			
Roof Lining	**None**			
Dimensions of Roof Void	**N/A**			
Evidence of Bats	**None**			



Plate 1 Building 1 (Front View)

Date	**1/9/15**			
Site Name	**Small Drove, Weston**			
Building Name/Number	**Building 2**			
Building Grid Reference	**TF 3001425059**			
Type of Building	**Agricultural Building**			
Age of Building	**20th century**			
Condition of Building	**Good**			
Wall Construction	**Corrugate Asbestos**			
Roof Construction	**Corrugate Asbestos**			
Roof Type	**Gable**			
Potential Access Points for Bats	**Open access**			
Roof Void	**Yes**		**No**	**X**
Insulation	**Yes**		**No**	**X**
Structure of Roof	**Unknown**			
Roof Lining	**None**			
Dimensions of Roof Void	**N/A**			
Evidence of Bats	**None**			



Plate 2 Building 2 (End View)



Plate 3 Survey Area



Plate 4 Survey Area

4.0 Survey Methodologies

Bats

4.1 The buildings were assessed as to their potential to hold bat roosts.

4.2 The building survey involved a thorough external and internal search of all suitable cavities, holes and crevices, all suitable areas and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

4.3 The buildings were categorised using the criteria below.

- **Low probability of bat interest**. Buildings in this category fall in to two main types: Generally well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall or without an attic space. Or those which contain some or all of the above features, but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel etc.

It must be borne in mind that a building from this latter group can become suitable for bats due to refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment.
No licence is required for development to a building classified as Low probability of bat interest

- **Medium probability of bat interest.** The buildings here contain many sites suitable for roosting bats although no obvious signs were recorded during the survey. In exposed conditions on large buildings the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

Occasionally a light scattering of droppings will be recorded in an attic or a semi derelict building, which is considered by the surveyor unsuitable for use as a bat roost. The medium probability of bat interest category can be used based on the surveyor's experience.

Whilst no licence is required for development to a building classified as Medium probability of bat interest, it is often best practice to conduct sensitive roof stripping or architectural salvaging to minimise any possible disturbance.

- **High probability of bat interest.** This group includes buildings with known roosts or signs of bat occupancy such as droppings and staining at a roost entrance. The description of high probability buildings will also contain an indication as to the time of the year when it will be occupied by bats i.e. Summer – nursery roost. Winter – hibernation

If the buildings fall in to the high probability group then the area of bat interest should be identified on site with the contractors to ensure that work does not affect the bats roost.

A licence would be required for development to a building classified as High probability bat interest.

Birds

4.4 The building has been inspected for evidence of breeding birds.

Barn Owl

4.5 The buildings have been inspected for the following signs:

- Owl pellets (feeding remains)
- Feathers
- Faecal deposits
- Live sightings

Badgers

4.6 A walkover survey of the site has been carried out to search for the following signs (Harris et al 1989):

- Setts
- Latrines
- Dung
- Badger Hair
- Footprints
- Pathways

4.7 Evidence of badger activity if found will be recorded.

Reptiles

4.8 A habitat assessment has been made to assess the sites potential for reptiles.

4.9 A walkover of the site has been carried out to assess if the habitat is suitable to sustain a population of reptiles. The following habitats are looked for:

- Bare Ground
- Variety of Sward Heights
- Natural Refugia
- Basking Areas

Water Vole

4.10 The standard methodology for water vole (Strachan & Moorhouse 2006) was used.

4.11 A metre by metre search of River Lark survey area was carried out to look for the following signs:

- Latrines
- Feeding Signs
- Footprints
- Burrows
- Runways in Vegetation
- Live Sightings

Flora

4.12 A walkover the site has been carried out to record all native plant species.

5.0 Survey Results

5.1 The surveys were carried out on the following date 1st September 2015.

5.2 The surveys were undertaken in following weather conditions cloud and sun light breeze and a temperature of 18.7°c.

Bats

5.3 Howard Hillier who holds a Natural England Bat Survey Licence Number2014-2996-CLS-CLS carried out the survey.

5.4 The survey of the agricultural buildings indicated a **low probability of bat interest** using the scoring system with no evidence of bats using or having used the buildings as a roost or feeding perch recorded.

5.6 The buildings were thick with cobwebs suggesting that no bats are using this area.

Birds

5.7 There was no evidence to suggest that birds are nesting in the buildings surveyed.

Barn Owl

5.8 No evidence of barn owl was recorded in disused agricultural buildings.

Badgers

5.9 The survey did not record any badger setts or evidence of badgers using the site.

Reptiles

5.10 The habitat assessment of the site did not meet the criteria as suitable reptile habitat; comprising of amenity grassland.

5.11 No evidence of water vole was recorded during the survey.

5.12 Both of the dykes were dry.

Flora

5.13 Nineteen common and widespread species of plants were recorded a full species list is shown in (Appendix 2).

6.0 Conclusions

Bats

6.1 No evidence of bats using or having used the agricultural buildings as a roost or feeding perch recorded.

6.2 The buildings were thick with cobwebs which suggest that bats are not using the building.

6.3 No further surveys are required.

Birds

6.4 No species of bird were recorded during the survey and no evidence was found to suggest that birds are nesting in the buildings.

6.5 No further surveys are required.

Barn Owl

6.6 No evidence of barn owl was recorded in the agricultural buildings to suggest that it is being used as a roost.

6.7 No further surveys are required.

Badgers

6.8 No evidence of badger setts or badger activity was found to suggest that badgers are using the site.

6.9 No further badger surveys will be required.

Reptiles

6.10 The habitat assessment of the site did not meet the criteria as suitable reptile habitat; comprising amenity grassland and lacking in bare ground, a variety of sward heights, natural refugia and basking areas.

6.11 No further reptile surveys will be required.

Water Vole

6.12 The survey produced a negative result, with both of the dykes being dry at the time of the survey.

6.13 No further water vole surveys will be required.

Flora

6.14 Nineteen species of common and widespread species of plants were recorded.

General

6.15 Overall the site is of low ecological value**.**

7.0 Recommendations

Bats

7.1 To enhance the sites biodiversity two Habibat bat boxes (Appendix 3) should be installed in suitable locations.

Birds

7.2 To enhance the sites biodiversity artificial barn swallow and house martin nests (Appendix 4) should be installed at suitable locations.

8.0 Legal Protection

Bats

8.1 The Conservation (Natural Habitats &c.) Regulations 1994 (amended 2010) (the Habitats Regulations) transpose into UK law Council Directive 92/43/EEC of 992 (often referred to as the Habitats Directive). All bats are listed under Annex IV and some (horseshoe bats, Bechstein's and Barbastelle) are also listed under Annex II which relates to Special Areas of Conservation. These Regulations make it an offence to:

- Deliberately capture, injure or kill a bat.
- Deliberately disturb bats in a way as to be likely significantly to affect the ability of any significant groups of bats to survive, breed or rear or nurture their young, or to affect the local distribution of abundance of that species.
- Damage or destroy a breeding site or resting place of a bat.
- Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

8.2 In addition the Wildlife & Countryside Act 1981 (as amended) makes it an offence to:

Intentionally or recklessly

- Disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection.
- Obstruct access to any structure or place which any bat uses for shelter or protection.

8.3 Penalties are fines of up to £5000 per bat and up to 6 months custodial sentence.

Birds

8.4 All bird's nests are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built.

Barn Owl

8.5 The barn owl is fully protected under Schedules 1 and 9 of the Wildlife and Countryside Act (1981) as amended.

8.6 The following account is a simplified summary:

8.7 The Act makes it illegal to:

- Kill or injure a barn owl.
- Catch a barn owl.
- Take or destroy any egg of a barn owl.
- Damage or destroy the active nest site with eggs or young or before eggs are laid.
- Disturb the dependant young of a barn owl.
- Possess, offering for sale or selling a barn owl.
- Release or allow the escape of a barn owl into the wild.

Badgers

8.8 The badger receives legal protection under The Protection of Badgers Act 1992.

8.9 The following is a summary of the offences contained in the act. It is a criminal offence to commit any of the following:

- To interfere with a sett by damaging or destroying it.
- To obstruct access to, or any entrance of a badger sett.
- To disturb a badger when it is occupying a sett.

8.10 A badger sett is defined by the legislation as “any structure or place, which displays signs indicating current use by a badger” and this is taken by Natural England to include seasonally used setts.

Reptiles

8.11 The Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act (2000) make it an offence to intentionally or recklessly kill or injure reptiles.

Bats

8.12 The Conservation (Natural Habitats &c.) Regulations 1994 (amended 2010) (the Habitats Regulations) transpose into UK law Council Directive 92/43/EEC of 992 (often referred to as the Habitats Directive). All bats are listed under Annex IV and some (horseshoe bats, Bechstein's and Barbastelle) are also listed under Annex II which relates to Special Areas of Conservation. These Regulations make it an offence to:

- Deliberately capture, injure or kill a bat.
- Deliberately disturb bats in a way as to be likely significantly to affect the ability of any significant groups of bats to survive, breed or rear or nurture their young, or to affect the local distribution of abundance of that species.
- Damage or destroy a breeding site or resting place of a bat.
- Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

8.13In addition the Wildlife & Countryside Act 1981 (as amended) makes it an offence to:

Intentionally or recklessly

- Disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection.
- Obstruct access to any structure or place which any bat uses for shelter or protection.

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8.14 Penalties are fines of up to £5000 per bat and up to 6 months custodial sentence.

Water Vole

8.15 Water vole receives full protection through its inclusion in Section 9 of the Wildlife and Countryside Act 1981.

8.16 Full legal protection under the act makes it an offence to:

- Intentionally kill, injure or take water voles.
- Possess or control live or dead water voles.
- Intentionally or recklessly damage, destroy or obstruct

access to any structure or place used for shelter or protection.

- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.

- Sell water voles or offer or expose for sale or transport for sale.

9.0 References

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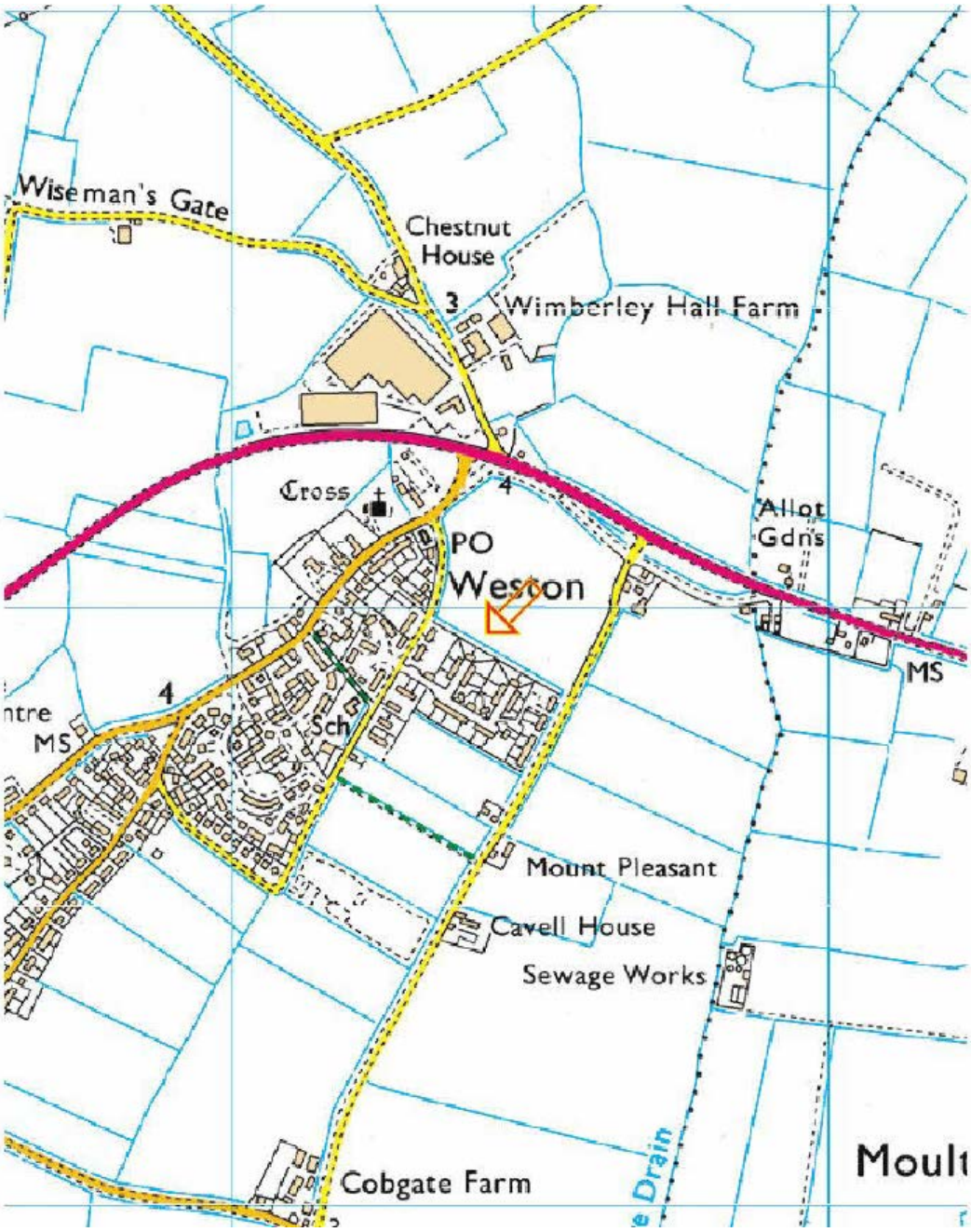
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Appendix 1 Site Location



Based on the Ordnance Survey Map with Permission of the Controller of Her Majesty's Stationary Office Crown Copyright Reserved. Licence No 10045706

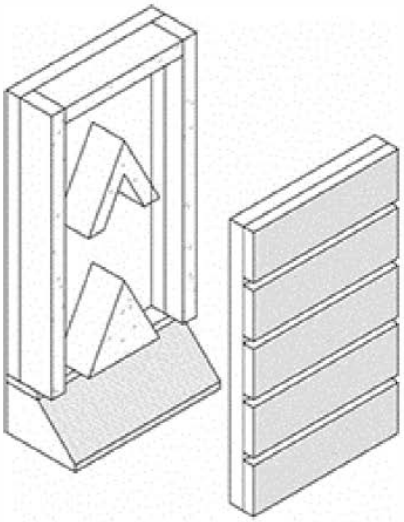
Appendix 2 Species List-Flora

Scientific Name	Common Name
Anthriscus sylvestris	Cow Parsley
Bellis perennis	Daisy
Cirsium arvense	Creeping Thistle
Cirsium vulgare	Spear Thistle
Dactylis glomerata	Cock's-foot
Heracleum sphondylium	Hogweed
Lamium alba	White Dead Nettle
Phragmites australis	Common Reed
Picris echioides	Bristly Oxtongue
Plantago major	Greater Plantain
Poa annua	Annual Meadow-grass
Potentilla erecta	Creeping Buttercup
Rumex crispus	Curled Dock
Senecio jacobaeae	Common Ragwort
Stellaria holostea	Greater Stitchwort
Taraxacum officinale	Dandelion
Trifolium repens	White Clover
Urtica dioica	Common Nettle
Veronica chamaedrys	Germander Speedwell

Appendix 3 Bat Boxes

Habibat Bat Box – Custom Facing Brick







Habibat Bat Box

The Habibat Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, rendering the box unobtrusive and aesthetically pleasing. The Habibat box is suitable for species which are most commonly found roosting in buildings in the UK, such as Pipistrelle, Natterer's, Whiskered, and Brandt's bats. This box is made to order and faced in brick to match your building. For certain brick types it may be necessary for you to send your own bricks to be used on the face of the box (six required for each box). This is also recommended if you require the bricks to match your own exactly, as slight variations between batches do occur. Please let us know your brick code or name at the time of ordering. We will then let you know if bricks will need to be provided or if they can be sourced by the manufacturer.

The box is supplied unpointed so it can be matched as closely as possible to the building.

Installation information:

Correct placement of Habibat is fundamental to the successful uptake by bats. Orientation: Temperature is known to be the major factor influencing successful uptake of artificial roost by bats. In general, bats seek warm spaces to help them with rearing young. For this reason, Habibat should be located where it will receive the maximum amount of sunlight. In the Northern hemisphere this will be the Southerly aspects/orientation (South, South-West and South-East).Height: Position Habibat a minimum of 2 metres but preferably 5 to 7 metres above ground. Avoid placement above windows, doors and wall climbing plants, thereby reducing the likelihood of predation by cats. A position near the eaves or gable apex of the property would be preferable.

Landscape considerations: To make Habibat a potential roost for a wider range of bat species, it is helpful to consider whether there is nearby linear vegetation features such as hedges and treelines. This is because some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.

Appendix 4 Bird Boxes



Barn Swallow Nest



House Martin Nest



Dropping Board