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Report for Stud Farm, Carlton, Yorkshire

Extended Phase 1 (including Protected Species) Survey

Date of Report – 10th September 2010

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Ecological Assessment and Protected Species Survey

Name of Client: Jaguar Estates Ltd and Wortley Construction Ltd JV

Address of Client: Chris Carr Associates, 6A Eastgate, Barnsley, S20 2EP

Dates of Surveys: 8th September 2010

Weather: Dry, sunny spells, slight breeze, warm 20⁰c

Address of survey site: Stud Farm, Spring Lane, Carlton, S71 3EU

Grid Reference of survey sites: SE 366 100

Name of Surveyors: A.B.Gibney BSc (Hons), MIEEM

Licences: Great Crested Newt 20093452, Bat 20093453 & Barn Owl 20093399 issued by Natural England

Site Description

The site measured approximately 2 acres (0.8ha), and was in the centre of Carlton, to the north east of Barnsley, Yorkshire. It comprised of residential accommodation, agricultural outbuildings, commercial size greenhouses, garden, yard and some agricultural land (permanent grassland), with boundary stone walls, internal stone walls and one internal hedge. There were a number of large trees within the garden.

Beyond the boundaries were residential properties and their gardens beyond the west boundary, a churchyard (some overgrown) and church beyond the northern boundary, and Spring Lane beyond the southern boundary and Church Street beyond the western boundary.

There were no ponds on site, and no field ponds within the area bounded by Church Street, Spring Lane and Carlton Road, outside the site boundary.

These roads would act as significant barriers to any newts, or other amphibians and reptiles.

Aims of Study

The Curious Ecologists have been commissioned by Jaguar Estates Ltd and Wortley Construction Ltd JV to undertake an extended Phase 1 ecological survey of the site, to particularly look for evidence of any protected species, or any other ecological issues appertaining to the site.

Summary

- 1) The site is comprised of about 2 acres (0.8ha) of land, which has several buildings on it including an old farmhouse (late 18th C) plus a number of outbuildings. These buildings were surrounded by a garden area (mown lawn and shrub borders), gravel driveway and paddocks (improved grassland). There were a number of large trees plus a hedge also on site. The site was mostly bounded by stone walls and some fences, plus there were internal stone walls. Beyond the site boundaries were mainly residential properties, roads and a churchyard.
- 2) The only evidence of any protected species found on the site was evidence of birds' nests. Although there was potential for bat roosts on site, and there was a great deal of good foraging and feeding sites for bats on the site.
- 3) The majority of the site is of low ecological value and the areas that are more ecologically valuable, mostly hedge and trees could either be retained, or mitigation measures incorporated into the site plans.
- 4) Any planning application is likely to be more acceptable if the ecological value of the site is protected or even enhanced, retaining the hedge and many of the trees as part of the soft landscaping and green infrastructure for the site could easily achieve this. Many of these features were next to the site boundaries, which should make this relatively easy to achieve.

Site Survey Methodology

The site was searched systematically for any signs of protected species. In particular:

1. The site was walked over and the habitats were described using Phase 1 Habitat Survey methodology.
2. Following making a detailed description, the buildings were searched in a systematic pattern, all available spaces were searched, looking for signs of bats, in particular droppings, insect remains (where bats have fed), lack of spiders' webs (where bats have roosted), the bats themselves and body oils stains (where bats have squeezed through gaps). Particular attention was paid to undisturbed surfaces, walls (where bat droppings sometimes stick) and window sills (both inside and outside the buildings). The search was carried out with a high power torch inside the building and binoculars on the outside (particularly searching under eaves and ridge tiles). All cavities were checked using an endoscope to establish if anything was within them. The roof was accessed from the flat roofs enabling all gaps under the tiles to be checked with the endoscope. Bats would be active at this time of year and a detector was on all the time that the survey was taking place, in case the light from the torch disturbed bats.
3. Signs of birds were also noted, particularly old nest sites, throughout the whole site.
4. Trees were searched by binocular for holes and other cavities (these could be used as roosts by bats or nest sites by birds), and an assessment was made of their potential to be used by bats and birds.
5. The hedge was surveyed and a note was made of the woody species present. As a domestic curtilage, the Hedgerow Regulations would not apply.
6. The ground was searched for tracks, trails or signs (particularly droppings and food/feeding signs) of protected species.
7. Searches under logs and rocks were undertaken in all appropriate amphibian terrestrial habitat.
8. Badgers- The area was searched for badger field signs. In particular grassland areas were searched for footprints, dung pits, snuffle holes and runways through the vegetation. Boundary hedges, walls and fences were searched for latrines. Runways under boundary fences were searched for stray hairs. Hedgerows and earth banks were searched for signs of sett building activity, including dung pits and hairs close to the sett entrance, footprints, discarded bedding and recent spoil heaps.
9. Evidence of any other protected species was also noted.

Results:

Building descriptions



Photo 1: Main House

The house was detached, part three-storey and in part two-storey. The walls were stone, and it had a stone roof (stone slabs). The building was aligned in a north/south direction, giving the roof an east/west aspect.

The roof was in sections at more than one height, with gable ends on each section. Timber purlins and rafters supported it, and these in turn were supported by beams in both 'queen' and 'king' post patterns. The beams had some mortised joints that all appeared to be tight fitting and covered in spiders' webs. The roof had equal pitches on each section. There were no missing slabs, but there were gaps under and between some of the slabs, but these were all webbed up. The slabs weren't lined in the three-storey part, being sealed with cement torching. The rears of the slabs were clearly visible for survey.



Photo 2: Cement torching in main roof

In the two-storey part, the roof had wooden tongue and groove sarking lining the slabs. The rear of the slabs could not be seen, and there may have been a cavity between the sarking and the roof slabs.



Photo 3: Wooden sarking lining roofing slabs

There were 2 attics forming the upper storey in each section, which were fully accessible for survey. Both had windows, making them well lit.



Photo 4: Windows in attic

There were many webs in these attics, indicating that nothing had disturbed the space for some time, these webs were from the ridge board to the joists.



Photo 5: Showing level of webbing in roof timbers

The ridge tiles were all in place, and there were some gaps under them. There were wooden soffits and fascias, and there were some gaps under these. The eaves were covered in spiders' webs. There were wooden framed windows and doors, and there were no gaps or cavities around these. The lead flashing over the chimney joint was tightly fitted with no gaps or cavities, and the lead flashing over the various joints between the roof sections had no gaps. There were cavities in some of the stone work, but these were full of webs. There were no gaps or cavities in the pointing on the gable ends and the gables had parapets with all their coping stones in place.



Photo 6: Gable end of House



Photo 7: Outbuilding a

This outbuilding was a detached single-storey building. The walls were stone, and it had in part a stone roof (stone slabs), in part corrugated steel and in part composite pan tiles. Some of the building was open fronted and some had been used as a butchery. The building was aligned in an east/west direction, giving the roof a north/south aspect.

The roof was in sections at more than one height, with gable ends on each section and valleys between the sections. The roof had equal pitches on each section. There were no missing slabs or tiles, but there were gaps under and between some of the slabs and tiles, but these were all webbed up. There was a roof void, which was not accessible for survey.

The ridge tiles were all in place, and there were some gaps under them. There were no soffits or fascias. The eaves were covered in spiders' webs. There were wooden framed windows and doors, and there were no gaps or cavities around these. There were cavities in some of the stone work, but these were full of webs. There were no gaps or cavities in the pointing on the gable ends.



Photo 8: Outbuilding b

This outbuilding was a detached single-storey building. The walls were stone, and it had a corrugated asbestos (type) sheeting roof. The building was aligned in an east/west direction, giving the roof a north/south aspect. The roof was at one height, with gable ends and equal pitches on each side. There were no missing sheeting, but there were gaps under and between some of the sheets, but these were all webbed up.

The roof was supported by wooden purlins, rafters and beams and these were in the main visible for survey, although one section had a ceiling which was in a poor condition, and the roof timbers weren't totally open for survey. The roof timbers that were visible were webbed over, including all the mortised joints. The ridge tiles were all in place, and there were some gaps under them. There were no soffits and fascias. The eaves were covered in spiders' webs. There were wooden framed windows and doors, and there were no gaps or cavities around these. There were cavities in some of the stone work, but these were full of webs. There were no gaps or cavities in the pointing on the gable ends and the gables had parapets with all their coping stones in place.



Photo 9: Air-raid shelter

There was a brick walled shelter, with a solid concrete block roof in the garden to the rear of the greenhouses. It was covered in ivy. It was open for inspection on the inside.



Photo 10: Greenhouses

These were aluminium framed glass houses, and would be unsuitable as bat roosts.

There were also a number of small sheds, which had brick walls and tile roofs. They were fully accessible for survey.

Field Survey

Table 1: Site target notes, see site plan for position of target note

Note	Legend	Photograph
1 Field a	This field was improved grassland and appeared to be managed for a hay crop. See note 1, after table for species list of plants in the fields.	
2 Field b	This field was also improved grassland and appeared to be managed for a hay crop. See note 1, after table for species list of plants in the fields.	
3	The garden was mainly closely mown amenity grass, with trees and (mainly) introduced shrubs in borders, just inside the garden boundaries. There was some tall ruderal growth within the borders. See note 2, after table for species list of plants in this area.	

Note	Legend	Photograph
4	The area to the east of the house was hardstanding (compacted gravel), with some annual growth and self-sown tree seedlings. See note 3, after table for species list of plants in this area.	
5	The hedge between the garden and field was a large overgrown defunct hedge, about 50m in length with hawthorn, holly, ash, rowan, sycamore and elder all present (see note 4 after table for scientific names of hedgerow species).	
6	Most other boundaries on the site were cemented stone walls, with coping stones cemented in place. There were very few cavities within these as the pointing was mostly in good order. There were also some fences on some boundaries.	

Note	Legend	Photograph
7	There were a range of buildings on the site, including the house and several outbuildings. No evidence of bats was found in any of these, but there were many nooks and crannies where bats could roost. There were also several old nests in the buildings, particularly the outbuildings, but none were active	
8	There were many trees and shrubs on the site, which would provide suitable roost sites for bats and nest sites for birds, and there were many old nests found during the survey, but none were active. See Table 3, for notable tree list.	

Note 1: The species list for the grassland was Yorkshire fog *Holcus lanatus*, annual meadow grass *Poa annua*, perennial rye grass *Lolium perenne*. twitch *Agropyron repens*, with creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, creeping buttercup *Ranunculus repens*, bulbous buttercup *R. bulbosus*, yarrow *Achillea millefolium*, autumn hawkbit *Leontodon autumnalis*, hedge bindweed *Calystegia sepium*, cow parsley *Anthriscus sylvestris*, dock *Rumex* sp., ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg., white clover *Trifolium repens* and red clover *T. pratense*. There were also some patches of tall ruderals next to the boundaries, including hedge bindweed, dock *Rumex obtusifolius* and nettle *Urtica dioica*, plus some areas of bramble *Rubus fruticosus*.

Note 2: The ground flora species list for the garden was twitch, bramble, creeping thistle, spear thistle, creeping buttercup, cow parsley, dock, rosebay willowherb *Epilobium angustifolium*, ivy *Hedera helix*, goosegrass *Gallium aparine*, dandelion and white clover.

Note 3: The ground flora species list for the hardstanding area was twitch, sowthistle *Sonchus arvensis*, fat hen *Chenopodium album*, bramble, creeping thistle, spear thistle, creeping buttercup, cow parsley, dock, rosebay willowherb, ivy, goosegrass, dandelion, white clover and red clover.

Note 4: Scientific names of hedgerow species are as follows; ash *Fraxinus excelsior*, elder *Sambucus nigra*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium*, rowan *Sorbus aucuparia*, sycamore *Acer pseudoplatanus*

Table 2: Phase 1 habitat types present on site	
A2.2	Bramble scrub/scrub
A3	Scattered trees
B4	Improved grassland
C3	Tall ruderals
J1.2	Amenity grassland
J1.4	Introduced shrub
J2.2.2	Species poor defunct hedge
J2.4	Fence
J4	Bare Ground

Table 3: Significant trees

No.	Species	Scientific Name	Size	Comments
A	Birch	<i>Betula pendula</i>	Med	No cavities present, some dead wood
B	Sycamore	<i>Acer pseudoplatanus</i>	Lge	Ivy clad, some dead wood.
C	Limes several + ash	<i>Tilia</i> sp. + <i>Fraxinus excelsior</i>	Sm Med Lge	Ivy clad, cavities present, some dead wood
D	Sycamore		Lge	Cavities present, dead wood
E	Sycamore		Lge	Cavities present, dead wood
F	Sycamore		Med	Ivy clad, No cavities present, dead wood
G	Sycamore		Lge	No cavities present, dead wood
H	Sycamore		Lge	Ivy clad, No cavities present, dead wood
I	Ash	<i>Fraxinus excelsior</i>	V. Lge	19m tall, 3.6m girth, cavities present, dead wood, ivy clad
J	Sycamore		Lge	Ivy clad, dead wood
K	Cherry	<i>Prunus</i> sp.	Lge	Cavities present, some dead wood, ivy covered tree
L	Sycamore		Med	No cavities present, ivy clad
M	Ash		Lge	Cavities present, dead wood, dead tree
N	Ash		V. Lge	Cavities present, dead wood,
O	Cherry	<i>Prunus</i> sp.	Med	Cavities present, some dead wood, ivy covered tree
P	Weeping Willow	<i>Salix</i> sp.	Med	No cavities present, little dead wood
Q	Sycamore		Med	No cavities present
R	Cherry	<i>Prunus</i> sp.	Lge	Cavities present, some dead wood

Conclusion:

Habitats: The majority of the habitats on site included improved grassland, amenity grass, buildings, fences, hardstanding, which would be classed as of limited wildlife interest (England Field Unit 2007). The areas, which are of any wildlife value, are the hedge and the trees. The site is basically isolated, being surrounded by busy roads, although there is some open land 'pony paddocks' on the far side of Spring Lane to the south.

Birds: There was some bird activity while the survey was carried out, with species of conservation concern being noted, including kestrel *Falco tinnunculus* and house sparrow *Passer domesticus*. There were old nests in some of the trees/shrubs and in some of the buildings, but none were active

Great Crested Newts (*Triturus cristatus*): There were no ponds shown on the local maps within 500m of the site, and no ponds present within the site. The searches under suitable refugia revealed no newts.

Bats: There was no evidence of bats found on site, however there were several large mature trees, which had cavities that could be used as roost sites for bats (detailed in results section). Also several of the buildings had potential to provide roost sites for bats, and the air raid shelter had potential as a hibernation site for bats. The site would also have a high potential to be a foraging/feeding area for bats, with the numbers of native trees and scrub areas providing ideal feeding sites. Also the proximity of the site to a church (which often provide good roost sites for bats) is likely to mean that bats would use the site.

Badgers: There was no evidence of badgers found on site, or within the vicinity of the site.

Other Protected Species: There was no evidence of any other protected species found on the site while carrying out the survey and there did not appear to be any appropriate habitats within the site boundaries, mainly because the site is so isolated.

Hedges – The hedge on the site was a domestic curtilage and so it would not meet the criteria for protection under the Hedgerow Regulations.

Trees – The trees on the site provided good habitats, many being native species, which increases their ecological value. Many had cavities or other features, which could provide roost sites for bats, and they also provided nesting potential for birds.

Legislation

Bats: Bats and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended by the CRow Act 2000), and by the European Habitats Regulations 1994. To summarise; it is an offence to damage or destroy any place of shelter and protection used by bats (their roosts); deliberately, intentionally or recklessly obstruct a bat roost; deliberately, intentionally or recklessly disturb a bat; or intentionally kill, injure or take any bat.

Nesting Birds: Nesting Birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to intentionally or recklessly disturb them while they are nest building or, at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

PPS 9: The Government's Biodiversity Strategy for England includes the aim that 'planning, construction and development should have minimal impacts on biodiversity and enhance it wherever possible', this strategy can be a material consideration in the planning process and is summarised in PPS9 ('Planning Policy Statement 9: Biodiversity and Geological Conservation'). The Natural Environment and Rural Communities Act 2006 came into force on 1 October 2006. Under Section 40 of the Act, all public bodies (including planning authorities) now have a legal duty to consider biodiversity in their work. As such, in order to increase the likely success of any planning application, consideration should be given to enhancing the biodiversity value of the site following redevelopment.

Recommendations:

- 1) The majority of the site is of low ecological value and the areas that are more ecologically valuable could be retained and incorporated into the final site plan.
- 2) Any planning application is likely to be more acceptable if the ecological value of the site is protected or even enhanced, retaining the hedgerow and many of the trees should achieve this. Many of these features were next to the site boundaries, which should make this relatively easy to achieve.
- 3) Further surveys on bats would be beneficial before any works were carried out on the buildings or site, so that bat activity on the site could be monitored. Emergence/re-entry surveys would be best, which can only be undertaken in the bats' active period (May – September). Each emergence/re-entry survey takes about 2-3 hours and consists of people positioning themselves so that all the buildings, in their entirety, can be observed, particularly the roofs, the surveyors then observe bat activity with the aid of a bat detector and record any activity. These surveys are undertaken either at dusk or dawn, and it is recommended that at least one survey incorporate a dusk and dawn survey in the same 24-hour period. Please note that up to 3 emergence/re-entry surveys may be required as recommended in *Bat Surveys Good Practice Guidelines 2007* produced by the Bat Conservation Trust, which is the recommended standard bat survey text. These surveys cannot be undertaken unless the weather conditions are suitable (preferably warm and dry). As the buildings are also near the best foraging areas for the bats, this should also adequately monitor the use of the site by bats.
- 4) Any protected species issues could be mitigated for by suitable method statements, without having to apply for European Protected Species licences, providing guidelines are followed, depending on what is found in the follow up surveys, and the final proposals for the site.

References

Mitchell-Jones, A.J. & McLeish, A.P. [ed.] (1999) *The Bat Workers' Manual* JNCC

Heaton, A. (1998) *Rare Wildlife in Leicestershire and Rutland* Kairos Press

Betts, C.J. (2001) *Checklist of Protected British Species* Christopher Betts Environmental Biology

Gent, T. & Gibson, S. [Eds] (2003) *Herpetofauna's Workers' Manual* JNCC

England Field Unit (2007) *Handbook for Phase 1 habitat survey – a technique for environmental audit* JNCC

Oldman, R.S., Keeble, J., Swan, M.J.S., & Jeffcote, M. (2000) *Evaluating the suitability of habitat for the great crested newt (Triturus cristatus)* Herpetological Journal Vol 10, No. 4 pg. 143-157

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Appendix 1: Site Plan

