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Protected Species Survey Report Plas Kynaston Hall, Wrexham

Grid reference SJ 2805 4214



Undertaken by Alison Johnston Ecology

February 2015

1. Introduction

- 1.1 I have been commissioned to undertake a bat survey of Plas Kynaston with reference to a planning application and listed building consent for renovation. The building is located at grid reference SJ 2805 4214. The building survey was carried out on 3rd February 2015, no dusk emergence survey was carried out at this time.
- 1.2 Plas Kynaston is a Grade II listed house, probably dating from the early C18. It is a two storey building with a vaulted basement. It has a pitched slate roof and two full height bay windows on the front.
- 1.3 The building is located overlooking a park and bowling green at an angle between Hill Street and Plas Kynaston Lane. There are a number of mature trees on the site and park boundary.
- 1.4 All bat species are protected under the Wildlife and Countryside Act 1981 as amended by the CROW Act 2000 and Conservation (Natural Habitats, &c.) Regulations 1994 which states that it is illegal for anyone without a licence to intentionally or recklessly kill, injure, capture or handle a bat of any species in Britain; to disturb a bat when roosting; or to damage, destroy or obstruct access to any place that bats use for shelter, whether bats are present or not.
- 1.5 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it illegal to:
 - Kill, injure or take any wild bird (unless under licence)
 - Take, damage or destroy a bird's nest whilst it is in use or being built
 - Disturb any wild bird listed on Schedule 1 of the Act while it is nest building or at a nest containing eggs or young, or disturb young of such a bird.

2. Methods

2.1 Daylight inspection

Both the interior and exterior of the building was, where possible thoroughly inspected for bats or any indications of the presence of bats. Such as scratch marks, lack of cobwebs, droppings or oil staining from bat's fur, audible squeaking and the presence of moth wings (indicates bat feeding perch). All crevices were inspected, so far as possible.

No dusk emergence survey was undertaken due to the time of year that the building survey was undertaken not being suitable.

The presence of any other protected species or species of note was also recorded during the survey following the guidelines from the Chartered Institute of Ecology & Environmental Management (CIEEM).

3. Results

3.1 Daylight inspection – 3rd February 2015

No bats visible during inspection, however bat droppings were found scattered through the ground floor and basement levels. In addition there were areas of accumulated droppings in the basement in the middle section on the west wall and on the ground floor in the northern end room. There are scattered butterfly wings in the attic, which may be bat feeding remains.

There are a number of dead birds and bird's nests thought the building.

4. Proposed building works

- 4.1 I understand that the building is to be repaired, converted and upgraded. I have seen the following plans relating to the proposed plans: Drawing number 1001 – floor and roof plans, existing and proposed and 1201 – elevation and sections, existing and proposed.
- 4.2 At the moment it is proposed to re-roof approximately 60% of the roof, including any damaged ridge tiles. Two new dormers are to be installed to the north and south slopes and two new conservation roof lights to the east slope and seven to the west slope. The two areas of flat roof are to be replaced with pitched roofs.

5. Assessment

- 5.1 Bat droppings were found mainly on the ground floor and basement levels. Most likely from Brown long eared bats, but the results of the DNA analysis have not come back yet so a positive identification cannot be made at this time.
- 5.2 There are a number of bird nests under the flat roofed sections.

6. Conclusions and Recommendations

- 6.1 As there is evidence of bats using the building, a licence will be required from Natural Resources Wales (NRW) in order to undertake works which will damage or destroy a bat roost. NRW recommend allowing 30 working days

for the processing of the licence application, but in practise it can take longer. In order to obtain a licence, mitigation will need to be put in place to make provision for bats to be able to continue to roost in the building following the proposed works. A licence application cannot be submitted until planning permission has been obtained.

- 6.2 To confirm species identification as bat emergence surveys were not undertaken, five samples of bat droppings were collected from different locations in the building. The droppings were sent for analysis at the Waterford Institute for Technology, Ireland. The results of this analysis have showed all five samples are from Brown long eared bats. Results of the DNA analysis are shown in Appendix 1.
- 6.3 Discussions with Matthew Ellis, NRW have suggested that due to the time constraints involved with the funding on this project and the fact that there will not be time to undertake dusk emergence surveys a worst case scenario is proposed for the methodology. In this case the worst case scenario is that the building is used as a maternity roost.
- 6.4 The plans for the building include proposals for the bats to be accommodated within the cellar. There were areas of scattered droppings and a pile of droppings indicating continued use over a period of time. The alternative is to provide a roost in the attic, however this would result in the loss of a residential unit which in turn would put the whole project in doubt as the project would not be financial viable.
- 6.5 In order to provide the worst case scenario mitigation it is proposed that section BF01 of the cellar is set aside in its entirety as a bat roost. Part of the cellar will be sectioned off using plastered studwork and a low wattage heater installed to mitigate for loss of a warm roosting space in the attic. It is proposed that access for the bats is provided via the existing (modified) ventilation openings. An entrance hole will need to be provided for the bats to exit the building; this gap will need to be approximately 1.5m above ground level. There will need to be some planting externally to provide cover for the bats when they enter and exit the building. There can be no external lighting in this area.
- 6.6 Additional mitigation can be provided by leaving small gaps approximately 30mm in length are left under some ridge tiles, roofing slates and behind soffits, to allow bats to access these points.
- 6.7 The roof must be re-roofed using bitumen type 1F felt and not any of the newer modern breathable membranes, in which bats can become entangled in and die.
- 6.8 Ideally the roof should not be removed until after April in case the site is used by bats for hibernation. A licenced bat worker will need to be on site when the slates are removed in the areas that are potential being used by bats.
- 6.9 If any timber treatment is required, only chemicals suitable for use in a bat roost can be used. A list of such chemicals can be provided by NRW or myself on request.

- 6.10 Contractors working onsite must be made aware that there is always a possibility that bats may be present within the building, at the top of the gable wall, at gaps between lintels over doors and windows, within timbers or at the eaves. Work should stop immediately and a licenced bat worker (Alison Johnston 0789950102) or Natural Resources Wales (NRW) should be informed immediately if any bats are found or if the presence of bats is suspected. All bat species are protected under the Wildlife and Countryside Act 1981 as amended by the CRow Act 2000 and Conservation (Natural Habitats, &c.) Regulations 1994.
- 6.11 There is evidence of nesting birds in the building

Alison Johnston MCIEEM
Ecological Consultant
5th January 2015

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Photograph 1. Plas Kynaston – South gable end and rear wall





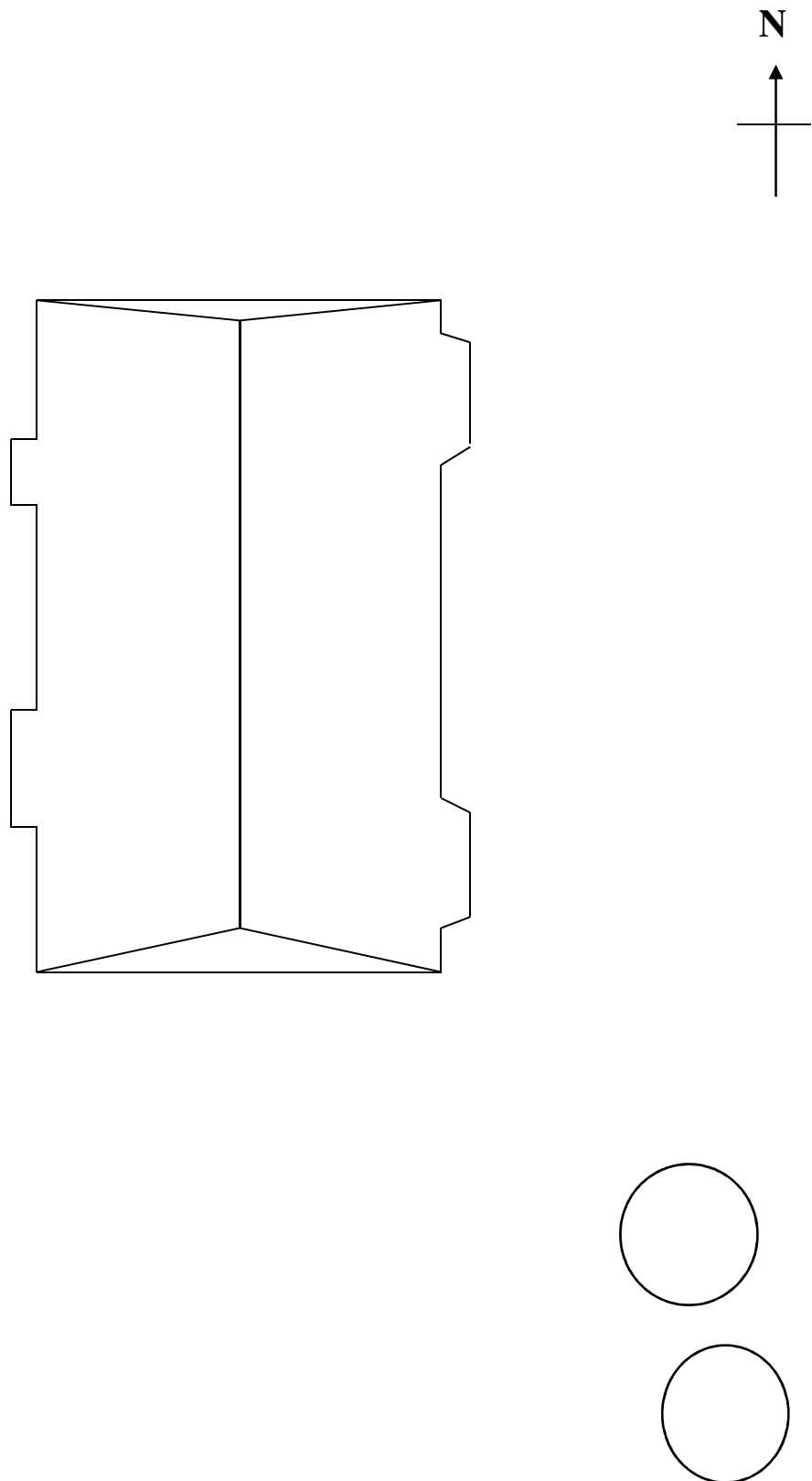








Figure 1. Site plan of Plas Kynaston – not to scale



Appendix 1 – Results of DNA analysis on bat droppings

4. ANALYTICAL REPORT						
Author	Catherine O'Reilly		Date	11/02/2015		
SAMPLE COLLECTED BY			SAMPLE COLLECTION			
NAME	Alison Johnston		DATE	03.02.15		
COMPANY	0		LOCATION	Plas Kynaston		
SAMPLE						
Code	SEL 1849	SEL 1850	SEL 1851	SEL 1852	SEL 1853	0
Suspect species (from client)	Brown long eared	Brown long eared	Brown long eared	Brown long eared	Brown long eared	0
Species group	C	C	C	C	C	0
DNA EXTRACT						
Code	COR090215 1	COR090215 2	COR090215 3	COR090215 4	COR090215 5	
DNA conc.(ng/μl)	2.1	2.7	3.4	2.6	2.7	
SEQUENCE DATA						
primer set	cytB	cytB	cytB	cytB	cytB	
sequence length (bases)	179	179	179	179	179	
Sequence match (%)	100	100	100	100	100	
SPECIES RESULT	<i>Plecotus auritus</i>	<i>Plecotus auritus</i>	<i>Plecotus auritus</i>	<i>Plecotus auritus</i>	<i>Plecotus auritus</i>	
haplotype	na	na	na	na	na	
Data file	090215	090215	090215	090215	090215	
POSITIVE CONTROL SAMPLE						
source	Faecal DNA sample					