Property Risk Inspection
LIMITED

Emergence/Re-Entry Survey – Bat Report

Site: 'The Birds' Public House, 18 Halmer Gate, Spalding, PE11 2EL

Presented to: DWA Architects

Date of Survey: 19th May – 20th June 2019

Prepared by Chris Crow BSc (Hons), ACIEEM.

NE Bat License No: 2015-11015-CLS-CLS
NE Great Crested Newt License No: 2015-18094-CLS-CLS
NE Barn Owl License No: CL29/00149

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Validity of survey data and report. The findings of this report are valid for 12 months from the date of the last survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required.

Property Services Insurance Services Planning Services Consumer Services Data Services

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1.Disclaimer & Limitations

1.1 – Field Surveys

Field surveys are undertaken or supervised by a company ecologist. In certain circumstances, full survey coverage may not be possible due to land permission requirements or health and safety restrictions. Where possible, visual assessment is undertaken and photographic evidence documented. If appropriate, full details of any constraint to survey or special circumstances are given in the report.

1.2 - Limitations and Seasonal Constraints

Owing to seasonal variances and prevailing weather, conditions may sometimes be sub-optimal for surveying and this may delay or disrupt planned survey programmes. If applicable, full details are given in the report.

1.3 - Quality Assurance

The ecologist delivering or supervising this report is bound by company policy and their own institute's Code of Professional Conduct when undertaking surveys on behalf of Property Risk Inspection.

2.Report Checking Procedures

This report has been prepared in accordance with Property Risk Inspection quality assurance procedures.

2.1 - Survey

The survey has been completed and/or supervised by a practice consultant.

2.2 - Drawings

Drawings have been delivered by the project manager and have been cross checked against field data and annotated field plans.

2.3 - Report and Findings

The report and findings have been prepared and/or quality checked by a practice consultant prior to issue to the client.

Report prepared by:	**Report checked by:**
Chris Crow BSc (Hons), ACIEEM of Crow Ecology	Paul Allen DipArb(RFS) MICFor MAE
Consultant Ecologist	**Head of Technical Services**
For and on behalf of Property Risk Inspection	

3.Summary

Crow Ecology was commissioned by Property Risk Inspection Ltd. on behalf of their client to undertake an Emergence/Re-Entry (Presence/Absence) Bat Survey following the report from Landscape Planning in 2018, the report May, P (2018) '*Ecological Appraisal*' Landscape Planning is referred to throughout this report. Results from this Ecological Appraisal of the public house triggered an Emergence/Re-Entry (Presence/Absence) Bat Survey. The aim of this survey is to determine the presence/absence of bats at the time of the survey and the need for further survey and/or mitigation. The survey is required to inform a proposed planning application which is to be lodged with the local planning authority, in this case South Holland District Council.

The project site is a recently closed public house with associated parking, outdoor seating and a play area. Copies of the proposed development were downloaded from the South Holland District Council Planning website and the Landscape Planning report were provided by the Property Risk Inspection Ltd, 2 The Courtyards, Phoenix Square, Wyncolls Road, Severalls Park, Colchester, CO4 9PE. The proposal is:

- Demolition of existing public house and landscape cleared or modified
- Creation of a 61-bedroom Care home with associated parking and landscaping

The Emergence/Re-Entry surveys were undertaken on the 19/05/19 (Dusk), 02/06/19 (Dawn) and 20/06/19 (Dusk) in suitable weather conditions for this type of survey.

No bats were found to be using the building during the three visits. The building was inspected prior to each emergence/re-entry surveys to check for bat evidence. No bat evidence was found. A small number of bats from the surrounding area passed by the building while following their foraging/commuting routes.

No breeding birds were present during the Emergence/Re-Entry Bat Survey.

No further surveys or an EPS licence is required in order for the proposed development to proceed.

A Bat Method Statement (see section 10.1.1) should be followed if the proposed development goes ahead. In the unlikely event that bats are present at the start or during the renovation work, work must be halted until a licensed bat holder can attend the site and give further advice where necessary.

In the unlikely scenario that breeding birds are present prior to development no works can commence between 1st March-31st August. If works need to be carried out during the nesting period (1st March to 31st August) checks should be made by an ecologist for nesting birds, the day before the works are due to commence. Any nesting birds found should be left to complete their breeding cycle (e.g. until the young have fully fledged) before any works can take place.

To increase the net gain to biodiversity and to comply with national and local planning policies the erection of bat boxes and a hedgehog box are recommended.

4.Introduction

Crow Ecology was commissioned by the Property Risk Inspection Ltd. on behalf of their client to undertake an Emergence/Re-Entry (Presence/Absence) Bat Survey following the report from Landscape Planning in 2018, the report May, P (2018) '*Ecological Appraisal*' Landscape Planning is referred to throughout this report[1]. Results from this Ecological Appraisal of the public house triggered an Emergence/Re-Entry (Presence/Absence) Bat Survey.

The aim of this survey is to determine the presence/absence of bats at the time of the survey and the need for further survey and/or mitigation. The Emergence/Re-Entry survey involves visiting the site at dusk and dawn to watch, listen and record any bats entering or exiting the building/s of interest.

Recommendations for mitigation and/or further survey work can be made to reduce the impact on any bat species found and thereby also reducing potential constraints to any development which might take place.

The project site is a recently closed public house with associated parking, outdoor seating and a play area. Copies of the proposed development were downloaded from the South Holland District Council Planning website and the Landscape Planning report were provided by the Property Risk Inspection Ltd, 2 The Courtyards, Phoenix Square, Wyncolls Road, Severalls Park, Colchester, CO4 9PE.

4.1 Site Location

Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

4.2 Site Description

Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

Please see appendices 1 for existing site layout.

4.3 Site Proposal

The proposal is:

- Demolition of existing public house and landscape cleared or modified
- Creation of a 61-bedroom Care home with associated parking and landscaping

Please see appendices 2 for proposed site layout.

5.Methods

This report has been written in accordance with the following guidelines:

- The Bat Conservation Trust: Bat Surveys for Professional Ecologists - Good Practice Guidelines (3rd edition 2016)[2]
- Natural England Bat Mitigation Guidelines (2004)[3].
- The current (March 2015) Natural England Standing Advice for bats[4] can be found at: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects
- Bat Workers Manual 3rd Edition (2004)[5]
- The Code of Professional Conduct and guidelines as laid down by the Chartered Institute of Ecology & Environmental Management (CIEEM).
- Reference to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

5.1 Desktop Study

Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

5.2 Preliminary Roost Assessment

Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

5.3 Emergence/Re-Entry – Presence/absence Survey

The Emergence/Re-Entry surveys took place on the following days: 19/05/19 (Dusk), 02/06/19 (Dawn) and 20/06/19 (Dusk). All surveys where carried out in suitable weather conditions for this type of survey.

5.3.1 Survey Methodology[2]

This survey involves visiting the site at dawn and or dusk to watch and listen (using a bat detector) and record any bats that enter or exit the building/s in question. The information recorded should illustrate the species, numbers, access points and roost location, the latter two will have already been noted from the preliminary roost assessment.
The aims and objectives of the survey are to determine the presence/absence of bats at the time of the surveys and the data collected to recommend further surveys and or mitigation.
If bats are present then a roost characterisation survey may need to be carried out depending on how much information your presence/absence survey has gleaned.
A Presence/Absence survey is triggered by the following[2]:

- The preliminary roost assessment has not ruled out the likelihood of a roost been present due to some or all of the features highlighted in the assessment
- A detailed assessment of the building/s was not possible due to restricted access but the building may suggest there is a likelihood of a roost
- A PRF (Potential Roost Feature) of the trees has highlighted a moderate-high suitability but no definitive record of a roost has been identified

- There is the possibility that some bat evidence has been removed by the weather or by human activities

The access points and potential roost locations are where the main focus of the survey concentrates although observation on other areas should be performed as bats can be unpredictable. These access points also dictate the number of surveyors needed to adequately complete the survey to a satisfactory standard. Before the start of the survey, the lead ecologist briefs each surveyor about the area they are surveying and highlights the access points of interest. Briefing each surveyor prevents overlap and the potential for double counting. Another way to avoid this is using radio contact so each surveyor can discuss any sightings.

Surveyor coverage is crucial to accurately access all access points. Simple structure buildings require fewer surveyors but always a minimum of two and vice versa for larger/complex buildings. If there are not enough surveyors another visit will be required this time with surveyors standing at other access points of interest. Surveyors should remain stationery and as close as possible without sacrificing coverage throughout the survey to avoid any bats being missed. This is especially important during dusk as bats tend to exit straight away and fly off. At dawn they tend to swarm near the access point so it makes it a little easier to identify the access point.

The surveyors then record any bat activity on the recording forms. They indicate on the building plan the point at which the bat came out/went in, the time and the species. Bats passing by are also recorded on the recording forms as this information may be useful for mitigation purposes.

5.3.2 Method Justification

This building triggered an Emergence/Re-Entry survey because bat droppings were found[1] (Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]). In addition, due to the buildings features it is deemed high roosting potential[1]. The surveying timings were also performed at these timings to co-inside with the peak active season from May to the end of August[2].

5.3.3 Areas Surveyed and Justification



Figure 3.1 – Dusk & Dawn survey positioning on the outbuilding (Source – Property Risk Inspection Ltd, 2018)

Dusk & Dawn survey positions

Pettersson M500-384 Ultrasound Microphone location for the three surveys

The dusk and dawn survey positions cover all elevations of the building. The Pettersson M500-384 Ultrasound microphone was placed where the microphone is not inhibited by temporary structures and therefore has full access to the roof void.

5.3.4 Survey Personnel

Chris Crow BSc (Hons), ACIEEM of Crow Ecology. Chris Crow has 8 years surveying experience and holds the following Natural England (NE) licences;

Bat Licence No: 2015-11015-CLS-CLS (Class 2)
Great Crested Newt Licence No: 2015-18094-CLS-CLS (Level 2)
Barn Owl Licence No: CL29/00149

In addition to Chris Crow (CC), the following other surveyors took part in this survey:

Josh Shea (JS) – 3rd Year student studying Zoology (BSc) at the University of Hull. Josh has been surveying with Crow Ecology for two seasons now. Josh has a keen interest in the ecology, evolution and management of British wildlife. During his time at university he has been involved in terrestrial and aquatic surveying on behalf of the University and the Forest Stewardship Council. I have been tutoring Josh in all aspects of ecology, including bat activity surveys.

Liam Walker (LW) – is actively pursuing a change in career and has worked with me over the past 6 years. I have been tutoring Liam in all aspects of ecology, including bat activity surveys.

Ryan Goring (RG) - graduated with a degree with honours in Costal Marine biology in 2017, currently enrolled in a masters by research in biological sciences with the University of hull. Across Ryan's undergraduate degree he has developed various ecological surveying skills as well as experience working alongside the environment agency and the sea watch foundation. I have been tutoring Ryan in all aspects of ecology, including bat activity surveys.

Charlie Hobbs (CH) is currently studying MSc Biological Sciences at the University of Hull. She has experience of ecological surveying techniques and has attended bat surveys previously with members of another consultancy. Charlie has surveyed a variety of habitats and buildings including woodlands, urban parkland and an old farm building. I have been tutoring Josh in all aspects of ecology, including bat ecology and bat activity surveys.

5.3.5 Limitations

There were no limitations to the survey. All elevations could be observed and surveyed accurately.

6.Survey Results

6.1 Desktop Study

Please refer to May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]

6.2 Presence/Absence Survey Results

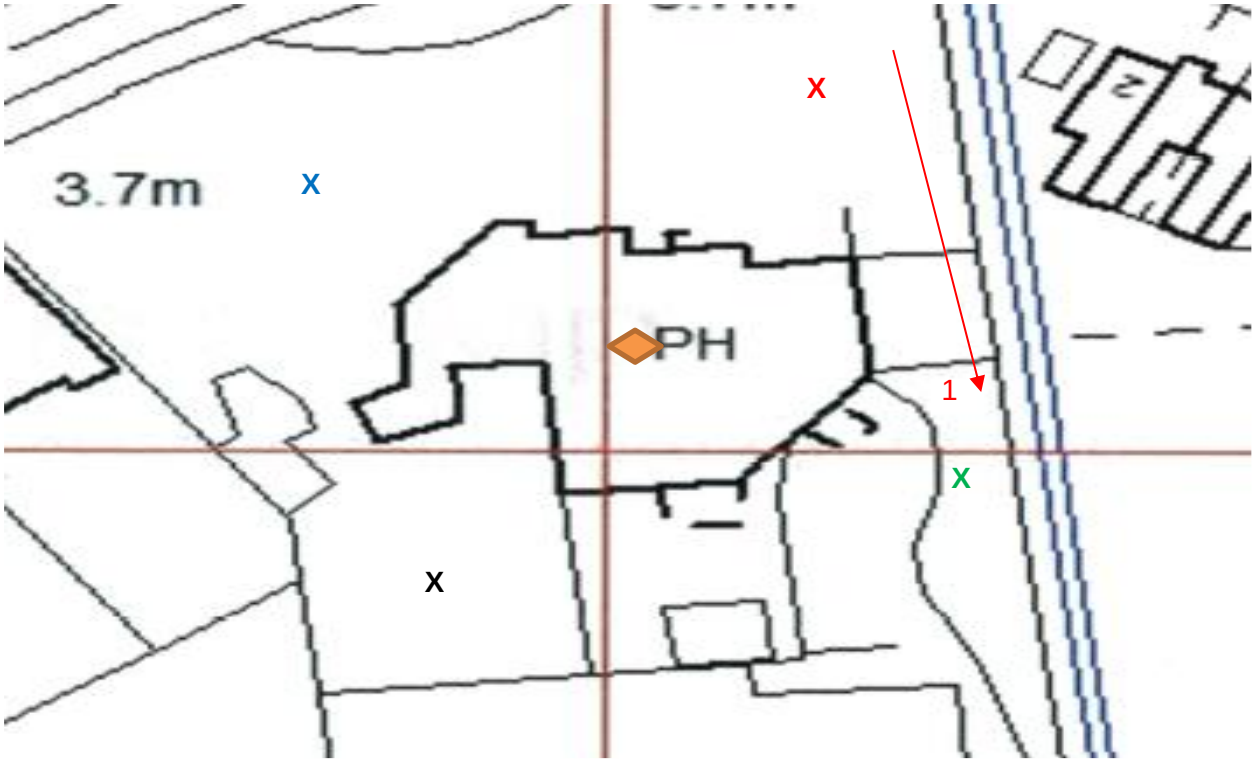
The report May, P (2018) '*Ecological Appraisal*' Landscape Planning [1] identified bat droppings. This, along with the reports evaluation that the building has high roosting potential was the evidence needed to trigger a presence/absence survey[2].

6.3 Summary of Survey Information

Date	**Timings**	**Weather**	**Structure (Numbered if more than 1 structure)**	**Equipment used**
19/05/19	Dusk – 20.57 Start time – 20.40 End Time – 22.30	Start temp – 14ºC End temp - 11ºC Wind – None Rain - None Cloud – 100%	Public House	• Clulite CB2 1 million candle light powered torches • Echo Meter Touch 2 Pro Bat detectors • Magneta Bat 5 Bat Detectors • Pettersson M500-384 USB Ultrasound Microphone • Head torches • Digital thermometer • Bat recording forms • Cobra MT645 Walkie Talkie Radios • Camera • Ladders • CAT S60 Camera
Comments – None				
Date	**Timings**	**Weather**	**Structure (Numbered if more than 1 structure)**	**Equipment used**
02/06/19	Dawn – 04.42 Start time – 02.40 End Time – 04.57	Start temp - 16ºC End temp - 16ºC Wind – None Rain - None Cloud – 0%	Public House	• Clulite CB2 1 million candle light powered torches • Echo Meter Touch 2 Pro Bat detectors • Magneta Bat 5 Bat

				Detectors • Pettersson M500-384 USB Ultrasound Microphone • Head torches • Digital thermometer • Bat recording forms • Cobra MT645 Walkie Talkie Radios • Camera • Ladders • CAT S60 Camera
Comments – None				
Date	**Timings**	**Weather**	**Structure (Numbered if more than 1 structure)**	**Equipment used**
20/06/19	Dusk – 21.29 Start time – 21.10 End Time – 23.10	Start temp - 13ºC End temp - 12ºC Wind – None Rain - None Cloud – 80%	Public House	• Clulite CB2 1 million candle light powered torches • Echo Meter Touch 2 Pro Bat detectors • Magneta Bat 5 Bat Detectors • Pettersson M500-384 USB Ultrasound Microphone • Head torches • Digital thermometer • Bat recording forms • Cobra MT645 Walkie Talkie Radios • Camera • Ladders • CAT S60 Camera
Comments – None				

6.3.1 Dusk Survey Report Map Summary 19.05.19



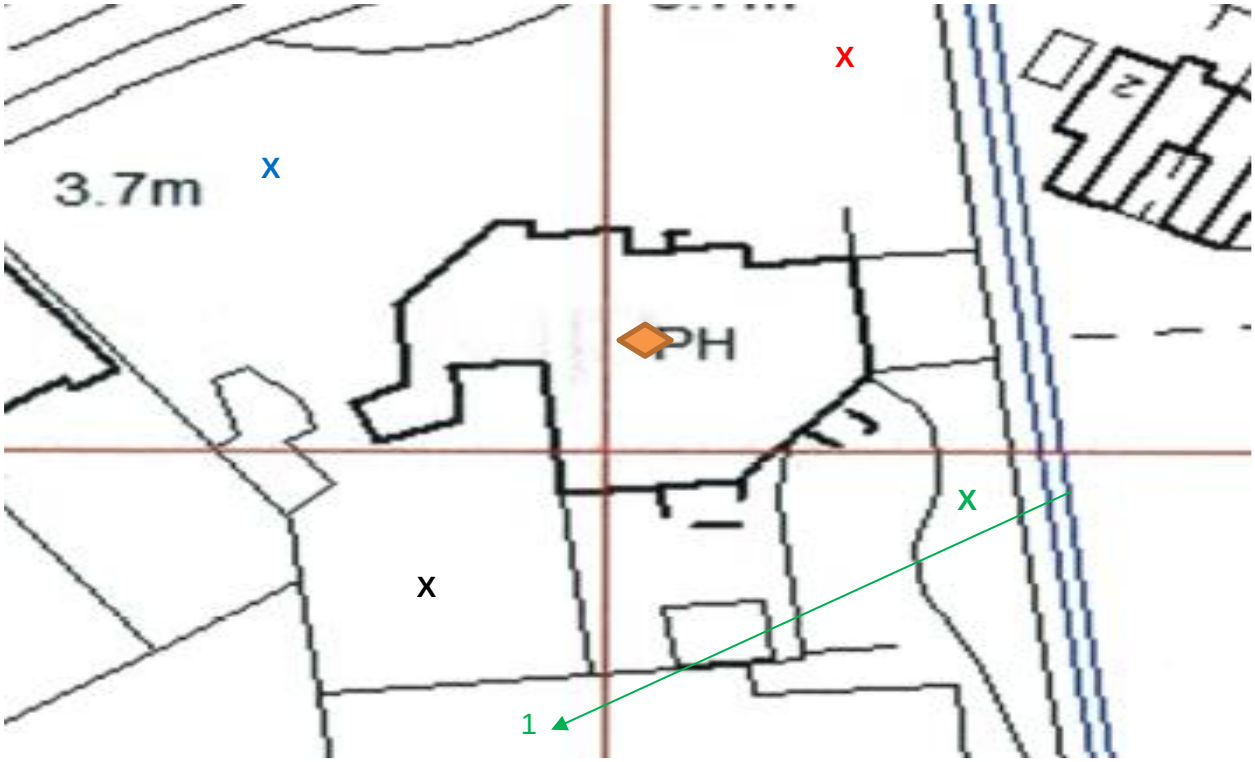
Key –
X = Surveyors location
Pettersson M500-384 Ultrasound Microphone location for the three surveys

6.3.2 Dusk Record Sheet Summary 19.05.19

Surveyor & Map Points	Time		Bat Species	No.	Behaviour**	Comments
	From	Until				
CC	No recordings					
RG 1	21.17	21.17	C.Pip	1	Comm	
RG ANV	22.21	22.21	C. Pip	1	Comm	
CH ANV	21.17	21.18	C. Pip	1	Comm	
JS ANV	21.26	21.26	C. Pip	1	Comm	

** Comm – Commuting, For – Foraging/Feeding, Swr – Swarming, Soc – Socialising, Emrg – Emerge/Enter roost feature
Abbreviations – ANV = Audio no visual, C. Pip = Common Pipistrelle

6.3.3 Dawn Survey Report Map Summary 02.06.19



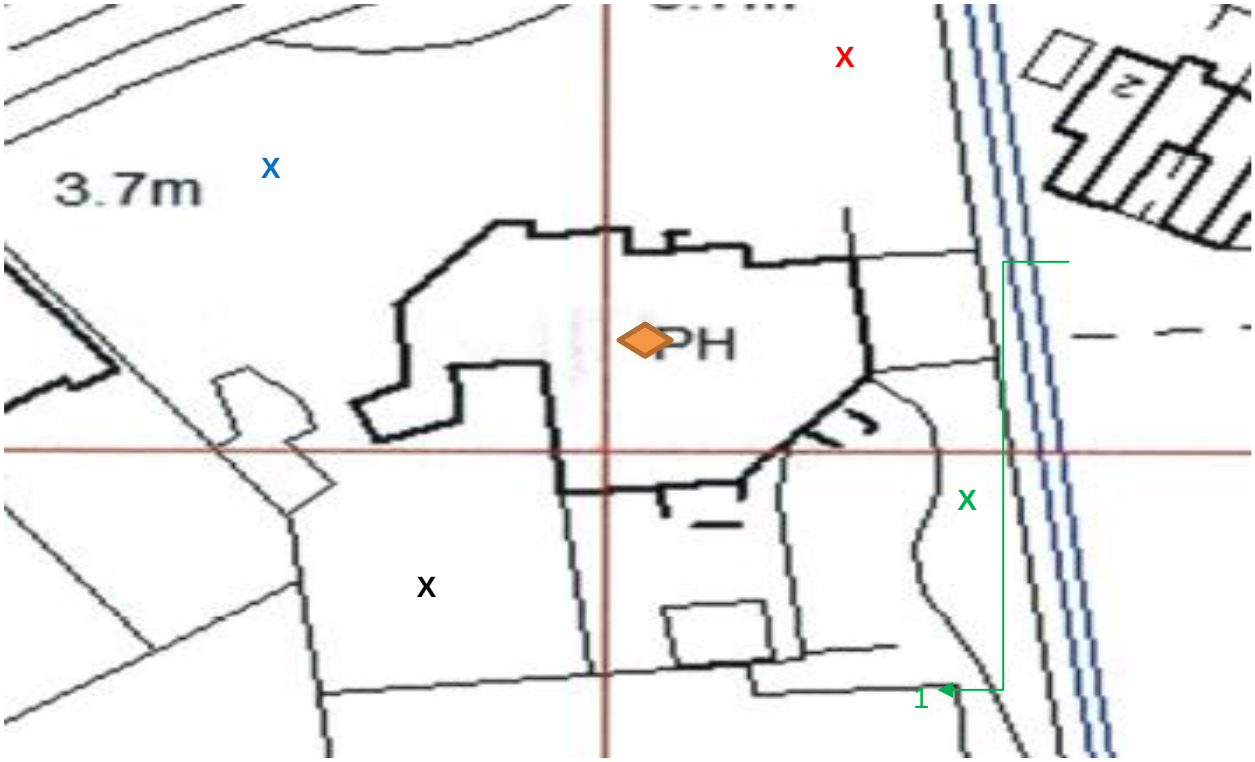
Key –
X = Surveyors location
Pettersson M500-384 Ultrasound Microphone location for the three surveys

6.3.4 Dawn Record Sheet Summary 02.06.19

Surveyor & Map Points	Time		Bat Species	No.	Behaviour**	Comments
	From	Until				
CC ANV	03.30	03.30	C. Pip	1	Comm	
JS ANV	03.22	03.22	C. Pip	1	Comm	
CH	No recordings					
RG 1	03.49	03.49	C. Pip	1	Comm	
RG ANV	03.22	03.22	C. Pip	1	Comm	

** Comm – Commuting, For – Foraging/Feeding, Swr – Swarming, Soc – Socialising, Emrg – Emerge/Enter roost feature
Abbreviations – ANV – Audio no visual, C. Pip = Common pipistrelle

6.3.5 Dusk Survey Report Map Summary 20.06.19



Key –
X = Surveyors location
Pettersson M500-384 Ultrasound Microphone location for the three surveys

6.3.6 Dusk Record Sheet Summary 20.06.19

Surveyor & Map Points	Time		Bat Species	No.	Behaviour**	Comments
	From	Until				
CC	No recordings					
LW ANV	22.39	22.39	C. Pip	1	Comm	
LW ANV	22.45	22.45	C. Pip	1	Comm	
RG	No recordings					
CH 1	21.55	21.56	C. Pip	1	Comm	

** Comm – Commuting, For – Foraging/Feeding, Swr – Swarming, Soc – Socialising, Emrg – Emerge/Enter roost feature
Abbreviations – ANV – Audio no visual, C. Pip = Common pipistrelle

Raw Data Recording Maps, Survey Forms and Sonograms are available upon request.

7.Evaluation

7.1 - Bats

7.1.1 – Preliminary Roost Assessment (PRA)

The data collated from the survey: May, P (2018) '*Ecological Appraisal*' Landscape Planning [1] concluded that the bat roosting suitability was high[1]. During that survey bat droppings were identified[1]. During this Emergence/Re-Entry Survey bat droppings were no longer present and have likely been washed away during the winter weather. These findings along with the roost suitability triggered the Presence/Absence survey[2].

7.1.2 – Emergence/Re-Entry Surveys

There were no bats recorded either visually (surveyors) or digitally (Pettersson M500-384 Ultrasound Microphone and EMT Pro 2) emerging or returning from and to the buildings. The buildings where checked prior to Presence/Absence surveys commencing. During the three surveys no new additional evidence of bat presence was found in the form of: droppings, feeding remains, urine splashes or staining, grease marks around potential roost points, or scratch marks.

All cracks and crevices were checked for bat presence/evidence either visually or via an endoscope. Some cracks and crevices were heavily cobwebbed. Bats prefer cobweb free areas[6,7]. Cobweb accumulation is also an indicator that no significant flight is taking place within the building as bats and birds prevent the propagation of webbing. Thermal imaging was also used before and after each survey in any points of interest; no bats presence/evidence was found. There were no grease marks on the tiles or walls and no urine splashes. Suitable perching points such as the ridge beams, trusses, purlins and joists had no feeding remains or droppings directly underneath them. Feeding remains and droppings directly under these structures are again an indicator of bat presence and more specifically of species such as Brown Long Eared Bat *Plecotus auritus*.

7.1.3 – Bat numbers, Species and Commuting Routes

There was a very low number of bats commuting/foraging close to the project site over the three surveys (total – 11 bats recorded, only three visually). A total of 4 bats were recorded during the 19/05/19 dusk survey, 4 bats during the 02/06/19 dawn survey and 3 bats during the 20/06/19 dusk survey. All species recorded were Common pipistrelle *Pipistrellus pipistrellus*. This species is very typically found in urban settings such as this project site and surrounding area.

The major commuting route of the bats identified visually were coming from the eastern boundary. They were either commuting along the hedge and tree boundary or flying from behind the hedge and tree boundary heading west.

Evaluating the Dusk and Dawn data and particularly the low numbers detected during the surveys one would conclude that the evidence found (small number of droppings[1]) was the

result of a temporary day roost. The likelihood is a bat may have been caught out by a change in the weather during their commuting route back to their normal roost and has sought shelter in the project site building that is adjacent to their commuting route.

It is also possible that the conditions within the building have become sub-optimal and therefore the bat/s are no longer roosting in the areas identified or anywhere else in the building.

There were no limitations to the survey and therefore the data gained is accurate at the times of the survey.

7.2 Evaluation Conclusion

- Bat droppings found during the survey: May, P (2018) '*Ecological Appraisal*' Landscape Planning [1] are no longer present and likely washed away during the winter weather
- No additional evidence found before each presence/absence visit
- No bats were present during the Maternity roosting period (May-August)
- There was a very low number of bats foraging/commuting nearby, with a majority of commuting routes coming from the east and flying west.

No roosting bats were evident during the Emergence/Re-Entry surveys. Therefore, a European Protected Species (EPS) license is not required for this building. However, should the unlikely presence of bats be found during the proposed development and work continues then you would be breaking the law under the Wildlife and countryside Act 1981[8] and Habitat and Species Regulations 2017[9].

7.2.1 - Conclusion

See chapter 10 for recommendations.

7.3 - Birds

No breeding birds were present during all three surveys

7.3.1 - Conclusion

See chapter 10 for recommendations.

8.Wildlife Legislation and Planning Policies

Bats and their roosts are protected by UK and European laws. Bat roosts are protected all through the year, whether or not they are occupying a roost site.

8.1 The Wildlife and Countryside Act (WCA) 1981 (as amended)[8]

The long title of the WCA 1981 as amended;
An Act to repeal and re-enact with amendments the Protection of Birds Acts 1954 to 1967 and the Conservation of Wild Creatures and Wild Plants Act 1975;

- to prohibit certain methods of killing or taking wild animals;
- to amend the law relating to protection of certain mammals;
- to restrict the introduction of certain animals and plants;
- to amend the Endangered Species (Import and Export) Act 1976;
- to amend the law relating to nature conservation, the countryside and National Parks and to make provision with respect to the Countryside Commission;
- to amend the law relating to public rights of way; and for connected purposes.

Bats are a Schedule 5 listed species. Section 9 of this makes it an offence to:

- deliberately capture, injure or kill bats
- damage or destroy a breeding or resting place
- obstruct access to their resting or sheltering places
- possess, sell, control or transport live or dead bats, or parts of them intentionally
- or recklessly disturb a bat while it's in a structure or place of shelter or protection

8.1.1 Birds

Birds, their eggs and nest are protected under by UK law under the following act:
Wildlife & Countryside Act (as Amended) 1981: Schedules 1-4 and in some cases 9.
To summarise, you would be breaking the law by;

- intentionally kill, injure or take birds
- intentionally take, damage or destroy a nest while it's being used or built
- intentionally take or destroy a bird's egg/s
- possess, control or transport live or dead bird, or parts of them, or their eggs
- sell birds or put them on display for sale
- use prohibited methods to kill or take birds

Birds that are listed as a schedule 1 bird are provided further protection. Additionally, it is an offence to:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young
- disturb their dependent young

8.2 Habitat & Species Regulations 2017[9]

The Conservation of Habitats and Species Regulations 2017 is an EU directive and consolidates all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species. These sites form a network termed Natura 2000 and include Special Areas of Conservation and Special Protection Areas. All European bats species and their roosts are listed in Annex IV and some bat species are also listed in Annex II giving those species even greater protection. Section 41 of this law states that it is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat and more specifically which is likely:
    - to impair the bats ability to survive, breed, reproduce, or to rear or nurture their young, or
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
    - to affect significantly the local distribution or abundance of the species to which they belong.
    - Damage or destroy a breeding site or resting place of a bat
    - Possess, control, transport, sell or exchange a bat or body parts of a bat both alive or dead.

8.3 The Natural Environment and Rural Communities (NERC) Act (2006)[10]

'An Act to make provision about bodies concerned with the natural environment and rural communities; to make provision in connection with wildlife, sites of special scientific interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes'.
In regards to the planning process sections 40 and 41 are of particular importance:
'Section 40 (1) Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.'
Section 41 lists habitats and species of primary importance to the conservation of biodiversity therefore making these habitats and species a consideration in the planning process.'

8.4 National Planning Policy Framework (NPPF) (February 2019)[11]

This policy states under section 15 'Conserving and enhancing the natural environment' under the Habitats & Biodiversity section that;

174. To protect and enhance biodiversity and geodiversity, plans should:
a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

175. When determining planning applications, local planning authorities should apply the following principles:
a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts),
adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

176. The following should be given the same protection as habitats sites:
a) potential Special Protection Areas and possible Special Areas of Conservation;
b) listed or proposed Ramsar sites; and
c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

8.5 Department for Communities & Local Government Circular 06/2005 Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System[12]

'This circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance' (Department for Communities and Local Government, 2005).

8.6 The 'UK Post-2010 Biodiversity Framework' (July 2012)[13]

The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP and 'Conserving Biodiversity – the UK Approach'. It is the result of a change in strategic thinking. The UKBAP is still used as a source of reference with regards to habitats and species. UK Biodiversity Action Plan was a government initiative and contains a list of priority habitats and species of conservation concern in the UK which are the same as those listed within Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006. The plan also outlines biodiversity initiatives designed to enhance their conservation status. The UKBAP requires conservation of biodiversity to be addressed at a county level via a Local BAP and are usually targeted towards species of conservation concern within each separate area.

8.7 UK Biodiversity Action Plan (UKBAP) and Local BAP (LBAP)[14,15]

UK BAP priority species and habitats were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). The original lists of UK BAP priority species and habitats were created between 1995 and 1999, and were subsequently updated in 2007, following a 2-year review of UK BAP processes and priorities, which included a review of the UK priority species and habitats lists. The aim of the 'Species and Habitats Review' was to ensure that the UK BAP lists of priority species and habitats remained up-to-date and focussed on the correct priorities. This was the first full review of the lists, generated over 10 years previously, and provided an opportunity to take into account emerging new priorities, conservation successes, and the huge amount of new information that had been gathered since the original lists were created. Selection of priority species and habitats for the priority lists followed consideration by expert working groups against a set of selection criteria, based on international importance, rapid decline, high risk, and habitats of importance for key species.
As a result of new drivers and requirements, the' 'UK Post-2010 Biodiversity Framework, published in July 2012, has succeeded the UK BAP. In particular, due to devolution and the creation of country-level biodiversity strategies, much of the work previously carried out under the UK BAP is now focussed at a country level.

The UK BAP lists of priority species and habitats remain, however, important and valuable reference sources.

LBAP have two targets: to reflect and help implement the national priorities identified in the UK Action Plans, and to identify and address local priorities and local distinctiveness.

8.8 Local Planning Policy[16]

The South East Lincolnshire Local Plan 2011 – 2036 Strategy Document outlines the council's planning policy targets. Policy 28 is the leading planning policy with regards to biodiversity.

Policy 28: The Natural Environment

A high quality, comprehensive ecological network of interconnected designated sites, sites of nature conservation importance and wildlife-friendly greenspace will be achieved by protecting, enhancing and managing natural assets:

1. Internationally-designated sites, on land or at sea:
   a. development proposals that would cause harm to these assets will not be permitted, except in exceptional circumstances, where imperative reasons of overriding public interest exist, and the loss will be compensated by the creation of sites of equal or greater nature conservation value;
   b. all major housing proposals within 10km of The Wash and the North Norfolk Coast European Marine Site, including the Sustainable Urban Extensions in Boston (site Sou006 & Wes002), Spalding (site Pin024/Pin045) and Holbeach West (site Hob048), will be the subject of a project-level Habitats Regulations Assessment (HRA) to assess the impact of recreational pressure on The Wash and North Norfolk Coast European Marine Site. This should include:
      i. locally-specific information relating to access and site sensitivities;

Where the project-level HRA concludes that avoidance and/or mitigation measures are required, it is expected that:

   ii. Suitable Alternative Natural Greenspace (SANGs) should be provided on site Sou006 and Wes002, site Pin024/Pin045 and site Hob048 as part of their package of mitigation measures; or
   iii. all other major housing proposals should provide SANGs on-site and/or through a financial contribution to provide and/or enhance natural greenspace in the locality;
   iv. Suitable Alternative Natural Greenspaces should be designed in accordance with capacity and facility requirements in relation to

the developments they mitigate for, best practice elsewhere and relevant evidence.

2. Nationally or locally-designated sites and protected or priority habitats and species:

   a. development proposals that would directly or indirectly adversely affect these assets will not be permitted unless:

      i. there are no alternative sites that would cause less or no harm; and
      ii. the benefits of the development at the proposed site, clearly outweigh the adverse impacts on the features of the site and the wider network of natural habitats; and
      iii. suitable prevention, mitigation and compensation measures are provided.

3. Addressing gaps in the ecological network:

   a. by ensuring that all development proposals shall provide an overall net gain in biodiversity, by:

      i. protecting the biodiversity value of land, buildings and trees (including veteran trees) minimising the fragmentation of habitats;
      ii. maximising the opportunities for restoration, enhancement and connection of natural habitats and species of principal importance;
      iii. incorporating beneficial biodiversity conservation features on buildings, where appropriate; and maximising opportunities to enhance green infrastructure and ecological corridors, including water space; and
      iv. conserving or enhancing biodiversity or geodiversity conservation features that will provide new habitat and help wildlife to adapt to climate change, and if the development is within a Nature Improvement Area (NIA), contributing to the aims and objectives of the NIA.

Figure 8.1 – Planning policy 28 of The South East Lincolnshire Local Plan 2011 – 2036

9. Impact Assessment

No bat presence has been found in the building and therefore there is no impact on bats with regards to the proposed development[3].

Bats can be susceptible to disturbance. Based on the survey data, assessment and guidance from the Bat Mitigation Guidelines[3] the overall collective impact of the development on bat populations locally, regionally and nationally from the proposed development is considered to be LOW[3].

Please see Chapter 10 for Recommendations.

10. Recommendations

10.1 - Bats

10.1.1 – Bat Method Statement

This method statement must be made available to any contractors who will be involved in any future developments of the project site.

The building still has moderate roosting potential and even though no bats were present in the surveys undertaken on this project site, bats are highly mobile and move between roost sites and hence why it is important to check the below features first and daily before work commences each day. The buildings should be treated as if bats were present

Prior to the start and then-on the following places must be checked on the building prior to demolition[5]:
These include:

- Crevices in stone/brick work and gaps in mortar
- Roof tiles
- Mortise joints
- Above the eaves
- Under any lead flashing
- Roof timbers including ridge beams, rafters, trusses and purlins
- Door frames
- Window Frames
- Behind any boarding

During the works, careful removal by hand of all fittings and fixtures will be exercised. Any wall cavities should be checked prior to pointing. It the roof needs to be removed, remove roof covering by hand. Remove half on the first day and the other the day after[5]. This will create sub-optimal conditions for any bats that maybe roosting within the roof structure and thereby inspire the bats to leave on their own will and not return. Before any door or window frames are fitted checks will be carried out.

In the unlikely event that bats are present at the start or during the renovation work, work must be halted until a licensed bat holder (Crow Ecology 07813900097or other ecologists) can attend the site and give further advice where necessary[5].

Bats should not be handled by unlicensed personnel. If it is absolutely necessary to remove a bat from the premises for overruling health and safety reasons or to avoid it being harmed gloves must be worn and the bat placed carefully in a breathable container and placed in a dark, quiet place, safe from predators, until a licensed bat holder arrives[5].

10.1.2 Timings

As no bats are present work can commence any time of the year[3]. Even though no bats were present during these surveys as stated above, bats are highly mobile and may have taken up residence prior to works commencing and therefore it is important to adhere to the Method Statement as stated in chapter 10.1.
To minimise the impact on foraging/commuting bats from the surrounding area, works should ideally take place between the 1st October - 1st May[5] and in the daytime during light hours if the proposed development timetable allows this because bats are in their hibernation state and less frequently go foraging/commuting[3]. Therefore, in particular, any works such as demolition, re-roofing or re-innovation of the building will not disturb the local bat populations' foraging/commuting routes.

10.2 - Bat Boxes

Although no bats were roosting in the building during the Emergence/Re-Entry Survey, bat droppings were identified under one of the barge boards from the previous survey: May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]. Providing bat boxes will ensure that bats will still have a roosting opportunity within the project site post-construction. Please see appendices 5 for locations on the proposed development.

Location & Product	Justification
The '1FF Schwegler Bat Box with Built-in Wooden Rear Panel' (External box) **or** 'Ibstock Enclosed Bat Box 'B' (Integrated box) are suitable for this project site. See appendices 3 for bat box recommendations. • The ideal locations of a bat boxes would be on the South, West and East- facing elevation • These boxes should be placed[17]: 1) Where bats are known to feed/commute 2) Ideally at least 4m above the ground (where safe installation is possible) 3) Sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west) • These boxes are 'self-cleaning' so very little maintenance is needed.	• Bat droppings were identified from this survey and from the survey: May, P (2018) '*Ecological Appraisal*' Landscape Planning [1]. • Bats are no longer present in this building but they have been in the past. Therefore, these types bat box will still provide a suitable roosting opportunity within the project site. • This facility will, in the long term may provide roosting areas that the site has not got/had and bring them directly onto their foraging area. This therefore is not only allowing the bats to forage closer to their roost but also this action enhances the biodiversity of the site. • As typical of an urban setting Common pipistrelle were recorded commuting through the site. These boxes recommended are suitable for such crevice dwelling species.

Table 10.1 – Bat box recommendations, where to locate them and why

10.2 - Breeding birds

No breeding birds were present during the PRA and Presence/Absence surveys; however, the building has the potential to support breeding birds.

If breeding birds are present in the trees/hedge/scrub/building then no demolition/clearing or felling works can commence between 1st March-31st August[18]. This is the time when adult birds are rearing their young. It is an offence under the WCA 1981 to in relation to this proposed development to:

- intentionally kill, injure or take birds
- intentionally take, damage or destroy a nest while it's being used or built
- intentionally take or destroy a bird's egg/s

If works need to be carried out during the nesting period (1st March to 31st August) checks should be made by an ecologist for nesting birds, the day before the works are due to commence[18]. Any nesting birds found should be left to complete their breeding cycle (e.g. until the young have fully fledged) before any works can take place.

10.3 - Lighting considerations[19]:

Although the foraging and commuter routes of bats are not legally protected it would be good practice to follow lighting guidelines in relation to bats and in particular to the project sites East and Western boundaries as this is the main commuting route for bats within the project site.

Mitigation Strategy	Impact
No Light	The best solution for bats but probably not for the public
Variable lighting regimes (VLR)	This is controlled by a CMS (Central Monitoring System). This involves switching off or dimming lights for a period in the night at set times. This would be useful for high periods of bat activity for example, emergence and commuting.
Spacing and Height	Lights should be spaced as far apart as possible but not at the expense of coverage. The height should be as low as possible to the ground and there-by reducing the illuminated light.
Reducing Intensity	This will have the same effect as dimming and will result in less light pollution.
Changing the Light Type	Avoid lights that have a short blue/white wavelength. Long wavelength types such as warm white will be suitable. Avoid lights with a high UV content. Use UV filters or glass housings to reduce UV emittance.
Reduce Spill	This can be done by using reducing the angle under 70º or by installing accessories to direct the light.

Table 10.2 – Mitigation strategies to reduce the impact of lighting on bats

11. Biodiversity Enhancements

To increase the net gain to biodiversity and to comply with national (NPPF[11] & NERC[10]) and local planning policies (Policy 28)[16] the below recommendations in addition to section 10 of: May, P (2018) '*Ecological Appraisal*' Landscape Planning [1] are suitable for this project site.

11.1 – Bats

11.1.1 - Planting

Under the current proposals, there are opportunities for planting species that provide a food-source for plants. These plants could be bedding areas within the surrounding grassland or in pots within the project site. This planting will further boost the biodiversity on-site post development. Please see[20]: http://www.bats.org.uk/publications_detail.php/231/encouraging_bats for more details on the best plants to grow. Please see appendices 6 for a possible location within the project site.

11.2 – Hedgehog box

Hedgehogs *Erinaceus europaeus* are in a state of decline. Since 2000, rural populations have declined by at least a half and urban populations by up to a third in the same period[21]. Hedgehogs are listed on the UKBAP[14] and LBAP[15] (see appendices 4 for an example of a suitable box). This box/es could be placed along either the eastern, southern and western boundaries. If a fence or wall is to be erected then a little gap should be created in the boundary wall/fence to allow the hedgehogs to move freely. Please see appendices 6 for a possible location within the project site.

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.



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June 2019
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Report printed on recycled paper

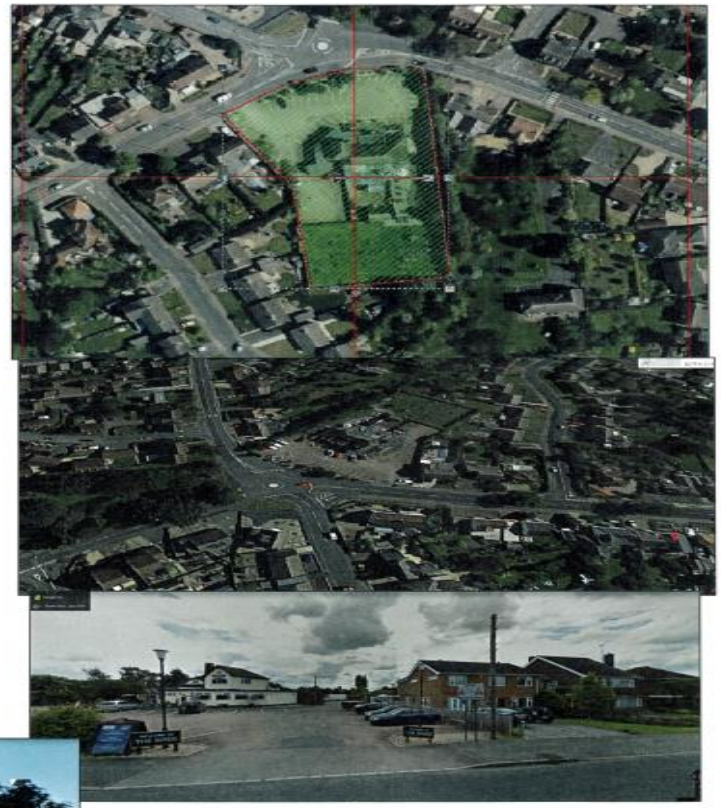
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13. Appendices

Appendix 1 – Existing Layout

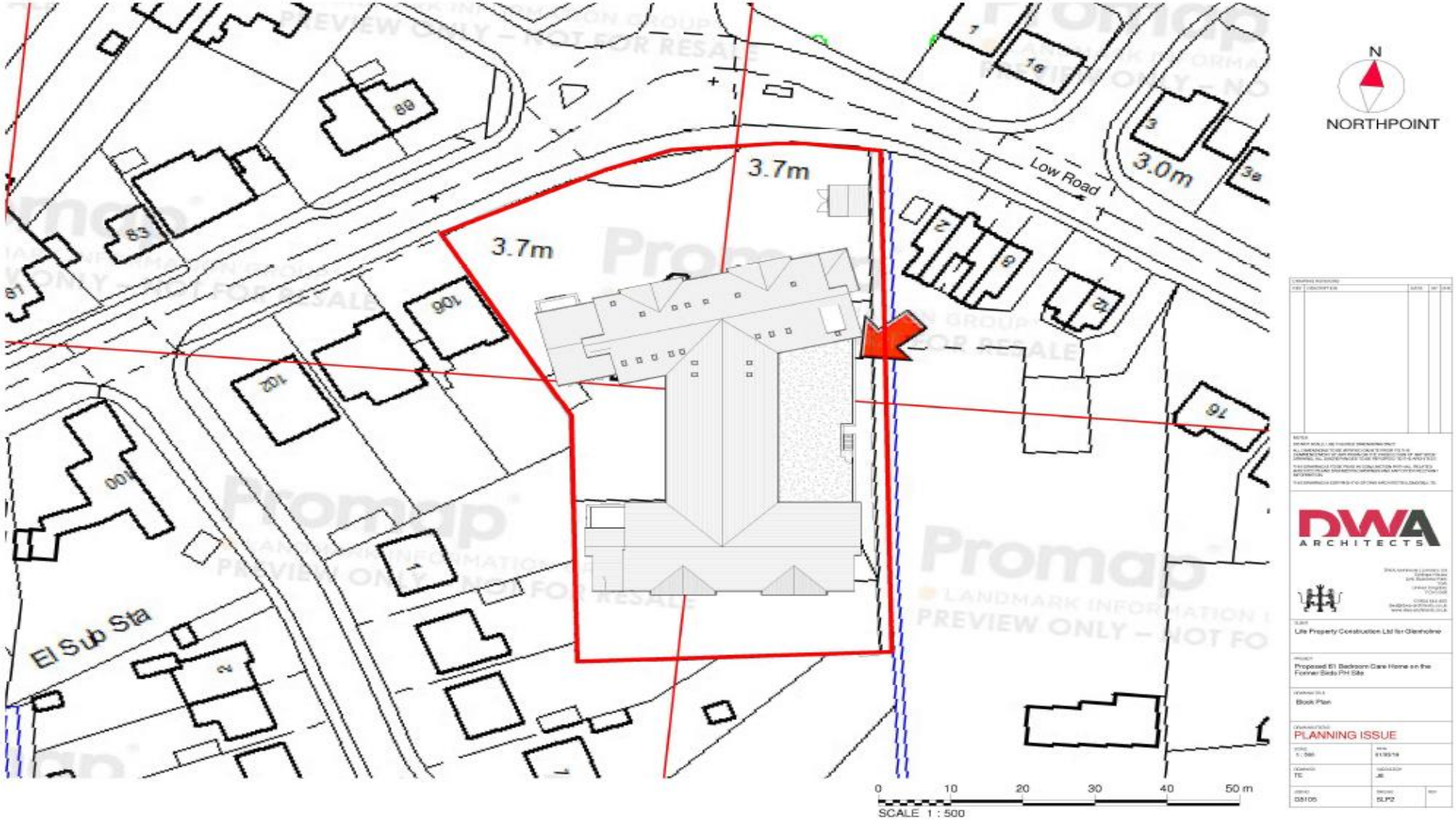






Scale
1:500

Appendix 2 – Proposed Layout



Appendix 3 – Bat Box

External Bat Box

1FF Schwegler Bat Box with Built-in Wooden Rear Panel



View Images



Robust roosting and nursery bat box for inaccessible locations

Schwegler

#174821 | Availability: **In stock**

NHBS Price: **£69.95** inc VAT $91/€78 approx.

About this product

The Schwegler 1FF bat box is spacious enough for bats to use as a summer roost or nursery site and is open at the bottom, allowing droppings to fall out so it does not need cleaning. The 1FF is, therefore, especially suitable for hanging in inaccessible places such as high in trees, or on steep slopes and house walls. The 1FF is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. Woodcrete is breathable and maintains a stable temperature inside the box and the 1FF is painted black to absorb warmth. It also provides a good rough surface for bats to cling on to and climb. To compensate for fluctuations in temperature in spring and autumn, the 1FF is provided with a roughened rear panel made of hard-wearing wood. Depending on their individual temperature requirements, the bats can choose between the cooler Woodcrete surface or the warmer wooden panel. The inner dimensions of the 1FF have a reducing width making it ideal for bat species which inhabit crevices such as pipistrelle and noctule bats. For conservation projects and studies, the entire front of the box can be easily swung open for inspection purposes. The 1FF bat box can be sited in trees or on buildings and is best positioned at a height of between 4 to 6 metres. Please note that once bats have inhabited a roost or nursery site they may only be disturbed by licensed bat workers.

Schwegler bat and bird boxes are backed by conservation organisations, government agencies and forestry experts and have the highest occupation rates of all nest boxes. They are carefully designed to mimic natural nest and roost sites and to provide a stable environment.

Height 43cm x width 27cm x depth 14cm. Entrance hole 12cm x 24cm. Weight 9.5kg. Aluminium nail and hanger included.

Specifications

Dimensions: 43 x 27 x 14cm
Entrance hole dimensions: 12cm x 24cm
Weight: 9.5kg
Material: Schwegler Woodcrete
Colour: Black with stable hard-wearing wooden insert
Supplied with: Galvanised steel hanger and aluminium tree-friendly nail

Source – www.NHBS.com

Please Note – This is an example of a suitable bat box, other crevice boxes are available

Integrated Bat Box

Ibstock Enclosed Bat Box 'B'



View Images



Small Red▼

Availability: **Usually dispatched within 2-4 weeks** Details

NHBS Price: **£128.00** inc VAT $166/€143 approx.

About this product

The Ibstock Enclosed Bat Box 'B' is designed for integration into the wall of new buildings or conservation projects and is intended to provide summer roosting space for pipistrelles specifically. It provides a discrete home for bats, with several roosting chambers to provide zones of differing temperatures within the box. The bats are contained within the box itself and the entrance at the bottom allows droppings to fall out, meaning that the box is maintenance free. The Enclosed Bat Box 'B' is available in two sizes and three colours.

Dimensions:

* Small Enclosed Bat Box 'B': 215 x 215mm
* Large Enclosed Bat Box 'B': 215 x 290mm

Source - www.NHBS.com

Please Note – This is an example of a suitable integrated bat box, other integrated boxes are available

Appendix 4 – Hedgehog box

Hedgehog House



View Images



SPECIAL OFFER

- Provide shelter for hedgehogs in your garden
- Waterproof roof
- Predator protection tunnel

Wildlife World

#234035 | Availability: **In stock**

NHBS Price: **£26.99** inc VAT ~~£36.95~~ (Save £9.96)

About this product

Hedgehog numbers are rapidly declining across the UK and providing a refuge in your garden with the Wildlife World Hedgehog House will help to protect hedgehogs from predators and disturbance. Underneath the textured brushwood finish there is a sturdy steel frame covered with a waterproof felt lining. The wooden entrance door is manufactured from FSC wood and forms a short predator defence tunnel, small enough to deter access by dogs or badgers. The edges of the house can be pegged down using tent pegs to provide extra security. To encourage hedgehogs to use the house site it in a quiet corner of the garden and cover with leaves for extra camouflage. The edges of the hedgehog house are finished with decorative rattan and the box is supplied in a decorative hedgehog gift box, making it an ideal gift.

Specification

Dimensions: (H) 210 x (W) 380 x (D) 490mm

Weight: 1.9kg

Material: Steel frame, waterproof felt roof, brushwood exterior, FSC wooden door (painted brown), rattan edge

Source – www.nhbs.com

Please Note – This is an example of a suitable hedgehog box, other boxes are available

Appendix 5 – Bat box locations



1 3D View - Front entrance



2 3D View 5 - Raised Courtyard



3 3D View Axo 1

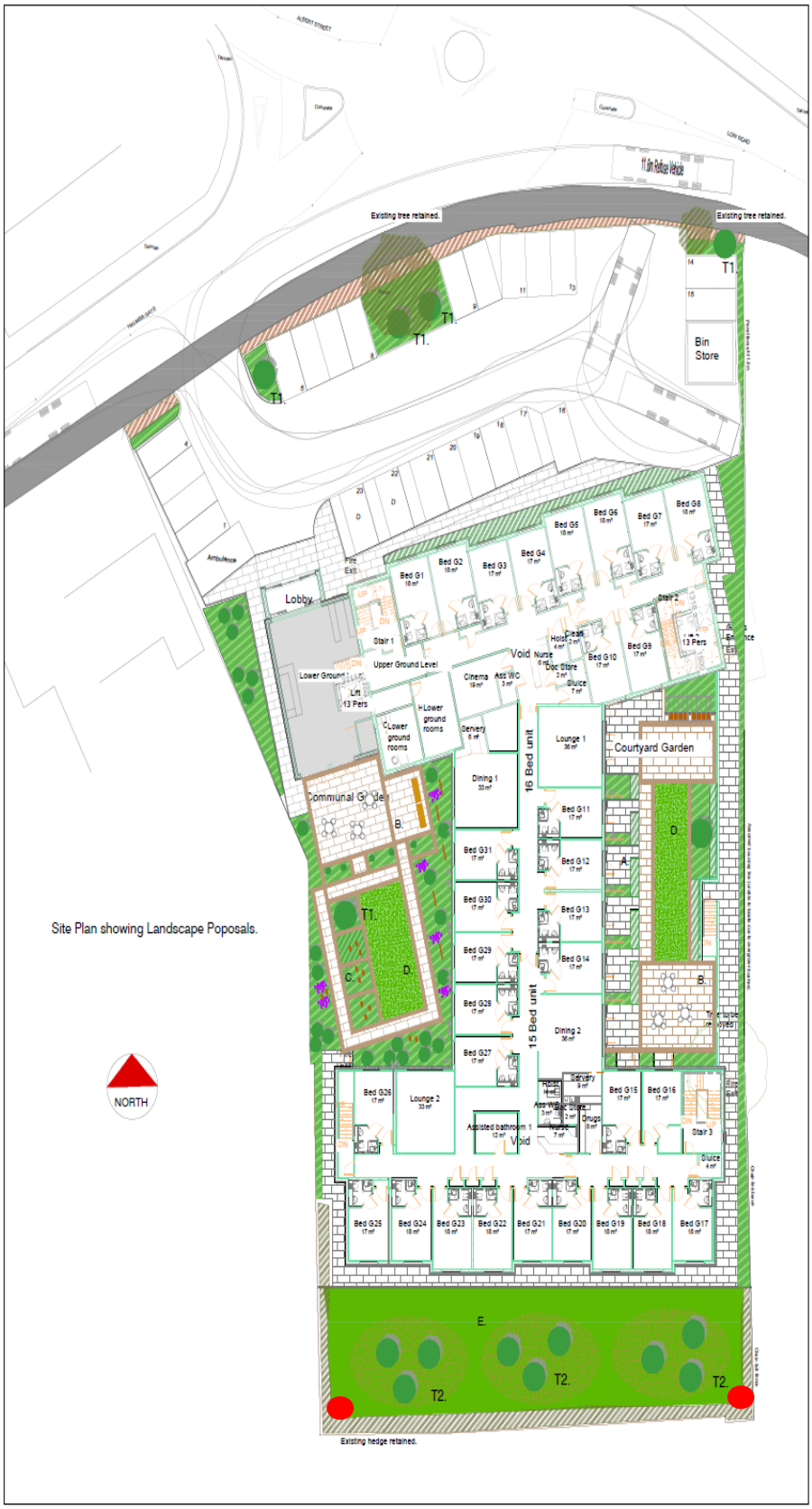


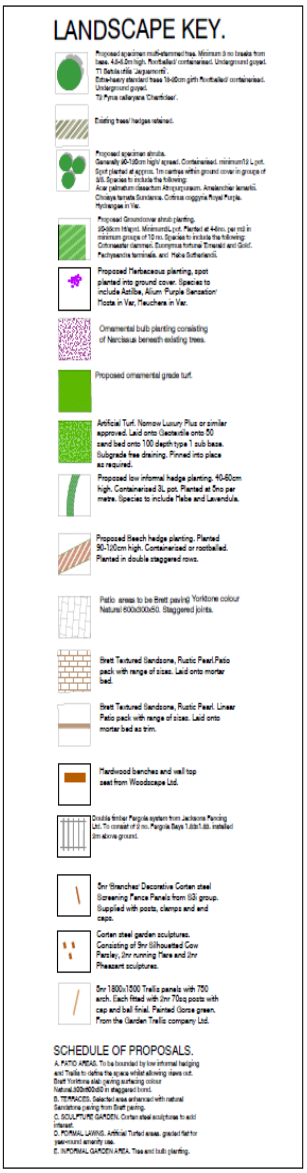
4 3D View Axo 2



Bat box locations

Appendix 6 – Hedgehog box location





PLANTING NOTES:
Topsoil should generally be a minimum of 400mm depth over planting beds and graded to fall. Imported topsoil to be to BS3882:2007
Herbicide and cultivation: Existing Topsoil is to be treated with selected, non-residual, translocated herbicide prior to planting or screefed to remove unwanted Vegetation, removing from site. All planting areas to then have 50mm depth planting compost spread evenly over surface and worked into top 150mm, with Ericaceous compost added to Rhododendron species. removing all stones greater than 50mm dia. roots and other debris. Ensure subsoil is free-draining, if necessary carrying out ripping to a suitable depth, although avoid areas beneath existing protected trees.
Trees: To be planted in pits 900x900x600mm or dimensions of rootball, whichever is greater.with a addition 25L planting compost.All trees to be underground- guyed. Where planted in grass areas to have 900mm dia. area free of turf and mulched.Native hedge and trees to be rabbit proofed.
Mulch: Immediately following planting, areas are to be watered to field capacity and muched with 50mm depth pulverised bark.
Grass: All turf/seeded areas to be cultivated to a fine tilth and levelled , removing any stones greater than 25mm dia, together with any other debris. Pre-seeding fertilizer applied at 35gms per m2 to ornamental turfed areas. Prior to hand over areas are to managed to create a uniform and dense sward, free of weeds. All planting areas are to be maintained reasonably free of weed growth and litter, with all dead, dying and otherwise defective plant material to be replaced prior to handover.
Poisonous plants: Please note that we have made every effort to avoid use of poisonous plant materials on the site; however, it should be noted that consumption of any ornamental plant may lead to adverse symptoms.

Possible hedgehog box location