P/2016/00980

Received 12/07/16

Phase 1 Habitat Survey
&
Protected Species Assessment

Land to the rear of No 2, Harbury Street, Burton on Trent

Report Reference: BG14.236

October 2014

brindle& green
ecological consultants

Brindle & Green Ecological Consultants specialise in delivering high quality and affordable ecological surveys and reports-tailored for their suitability for informing planning applications.
Brindle & Green surveyors have the necessary experience, technical ability, qualifications and accreditations to meet the high demands increasingly enforced by Local Authorities and Natural England.
Projects are undertaken against the recognised guidelines for the species or habitats being studied.
Brindle & Green reports are uniquely designed to provide the reader with the best possible understanding of our client's proposals and to ensure that the information requested by the Local Planning Authority is easily found and understood.
This report has been prepared in accordance with the Institute of Ecology and Environmental Managements (IEEM) Professional Issue Series 13, ***Guidance for Ecological Report Writing****.*

www.brindlegreen.co.uk

Head Office
Brindle & Green Limited
Office 302
The Old Court House
Saint Peters Churchyard
Derby.
DE1 1NN

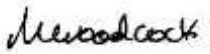
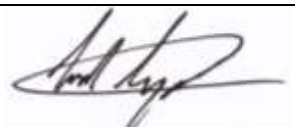
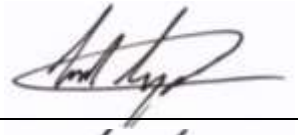
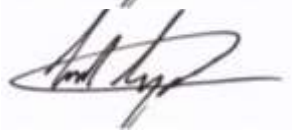
Sheffield Office
Brindle & Green Limited
Horizon House
Whiting Street
Sheffield.
S8 9QR

Barnsley Office
Brindle & Green Limited
Sergeants House
36 Edderthorpe Lane
Barnsley.
S73 9AT

Kent Office
Brindle & Green Limited
18 Sandy Lane
Sevenoaks
Kent
TN13 3TP

Tel: 0800 222 9105

Document Control

Report	Name	Signature	Date
Prepared by	Mark Woodcock		October 2014
Checked by	Jack Roper		October 2014
Approved by	Jack Roper		October 2014
Revision Record	Jack Roper		October 2014

Liability

Brindle & Green has prepared this report for the sole use of:

Andrew Granger & Co

The report is in accordance with the agreement under which our services were performed. No warranty, express or implied, is made as to the advice in this report or any other service provided by us. This report may not be relied upon by any other party except the person, company, agent or any third party for whom the report is intended without the prior written permission of Brindle & Green.

The content of this report is, at least in part, based upon information provided by others and on the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from any third party has not been independently verified by Brindle & Green unless otherwise stated in the report.

Project Details

Project carried out by:

Brindle and Green
Office 302
Old Court House
Derby.
DE1 1NN
Head Office: 0800 222 9105
Email: info@brindlegreen.co.uk
Website: www.brindlegreen.co.uk

Project carried out for:

Andrew Granger & Co
52 High Street,
Market Harborough,
Leicestershire
LE16 7AF
Tel: 01858 431315
Contact: Stephen Mair
email: stephen.mair@andrewgranger.co.uk

Project site:

Land at the Rear of 2 Harbury St,
Burton-on-Trent
DE13 0RY

Grid ref. SK 23512 24854

Contents

1 Summary 6

2 Introduction 7

3 Site Context 8

4 Relevant Policy and Methodology 9

5 Methodology 12
5.1 Desk Study 12
5.2 Protected Species Assessment 12
5.3 Surveyors 12
5.4 Limitations 13
5.5 Report Lifespan 13
5.6 Potential Bat Roost Assessments 14

6 Results 15
6.1 Habitat Survey 15
6.2 Bat Building Assessment 18
6.3 Building assessment 20
6.3 Interpretation of Ecological Data Search 24
6.4 MAGIC MAPS 24
6.5 Protected Species and Ecological Features Assessment 25

7 Evaluation & Recommendations 26
7.1 Habitats and Botanical Interest 26
7.2 Breeding Birds 26
7.3 Bats 26

8 Ecological Enhancement 28
8.1 House sparrow (*Passer domesticus*) 29
8.2 Native planting for pollinators 30

9 References 31

Appendix 1 32
Phase 1 habitat plan 32

Appendix 2 33
Magic Data 33

Appendix 3 34
Map supplied by client. 34

Appendix 4 35
Ecological Data Search Information 35

1 Summary

1.1

Brindle & Green have been commissioned by Andrew Granger & Co to undertake a Phase 1 Habitat Survey & Protected Species Assessment at the Land to the rear of No 2 Harbury Street, Burton-on-Trent, Staffordshire. The purpose of this assessment was to provide a preliminary appraisal of the ecological value of the site and its likelihood for supporting protected species. The survey provides details on the need for any additional, more detailed protected species surveys, likely mitigation and any opportunities for enhancement.

1.2

All ecological issues relating to the habitat type were considered during the survey. The recommendations are as follows:

1.2.1 **Roosting Bats**

Roosting bats were not found to be using the buildings on site during initial building assessments. However internal bat building surveys could not be undertaken at the time of the initial Phase One Survey due to access issues. No evidence of bats were detected in the area.

1.2.2 **Breeding Birds**

The trees and scrub on and around the surroundings of the site will offer suitable breeding habitat for bird species. Consequently vegetation removal or clearance should avoid the bird breeding season. Where this is not possible then vegetation removal should be done under the supervision of a suitably qualified ecologist.

Timing: Building work and vegetation clearance should avoid March to August inclusive.

1.2.3 **Ecological Enhancement**

The site could contribute to supporting local biodiversity through the erection of bat and bird boxes on walls and trees and the inclusion of native planting where possible.

2 Introduction

2.1

Brindle & Green have been commissioned by Andrew Granger & Co to undertake an ecological assessment at the Land to the rear of No 2 Harbury Street, Burton-on-Trent, Staffordshire. This survey has been undertaken to identify baseline information on the ecological value of the site. The purpose of this assessment is to identify any ecological constraints relating to the proposed works.

2.2

A protected species assessment of the site was carried out on **3rd October 2014**. The purpose of this assessment is to clarify with some certainty whether the proposed development work could have an impact on protected species and habitats. This survey has been undertaken to identify baseline information on the ecological value of the site. The purpose of this assessment is to identify any ecological constraints relating to the proposed works. Current proposals suggest that the site will be cleared for residential development.

2.3

The site comprises an area of land approximately 0.3386 hectares (0.8367 acres) in size. The site possesses 4 buildings, consisting of 1 residential property, a shed, garage and one large structure made up of 20 garages. Poor scrubland area encompasses the buildings on site. A selection of mature and immature trees are situated around the project site. Residential housing surrounds the site. It is understood proposals are for residential development. Proposed works will see the current buildings demolished.

2.4 Zone of Influence

The zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. This is determined by the type of development proposed in relation to individual species and their dependence on their habitat requirements, mobility and distances from the site.

3 Site Context

Maps and aerial photographs were examined to assess the relationship of the location and its connection to the surrounding environment and habitats beyond the site boundaries. This is an important consideration as it relates to the potential of the site to attract protected species from outlying areas.

Aerial view of the project area marked in red.

The site is located within the town of Burton-on-Trent. Urban development surrounds the site on all sides providing poor connectivity for outlying biodiversity.

The project area can be found at Grid ref. SK 23512 24854.

4 Relevant Policy and Methodology

4.1 General Policy

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2010
- Department for Communities and Local Government. National Planning Policy Framework. March 2012
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- National Parks and Access to the Countryside Act 1949

- Land Drainage Act 1991
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- The United Kingdom Biodiversity Action Plan 2006
- Hedgerow Regulations 1997
- Town and Country Planning Act 1990
- Local Biodiversity Action Plan (LBAP).

4.3 Relevant Policy & Guidance

The following is an outline of wildlife legislation and guidance in relation to the habitat type found at the site.

Biodiversity Issue	Legislation and Guidance
Breeding Birds	All 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. Depending on the species, the bird breeding season can start in February and continue through until August. Areas of concern; vegetation clearance, building work, water table fluctuations. Breeding Bird Surveys (BBS) are carried out in accordance with: Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods: Breeding Bird Survey* (pages 389-393). RSPB.
Roosting Bats	All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981. It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat. Areas of concern; can be encountered in many types of structure and care should therefore be taken when undertaking maintenance or demolition of suitable structures and trees. Site assessments are undertaken in accordance with: Bat Conservation Trust's '*Good Practice Survey Guidelines*' (Rev 2012).
Noxious Weeds	Japanese Knotweed (*Fallopia japonica*) and Giant Hogweed (*Heracleum mantegazzianum*) are classified as noxious weeds under Part II of Schedule 9 of the Wildlife and Countryside act 1981. Any person who causes these species to grow or spread in the wild by dumping or other means is guilty of an offence. The plant and the soil these species are found growing in are classified as waste material and should be treated as such. Ragwort (*Senicio jacobaea*) is another species which requires control along with other weeds such as Spear thistle (*Cirsium vulgare*), Creeping or field thistle *(Cirsium arvense*), Curled dock (*Rumex crispus*), Broad leaved dock (*Rumex obtusifolius*). These species are usually found on disturbed sites such as river banks and derelict sites.

Trees and Hedgerows	Permission from the Local Planning Authority should be gained to remove hedgerows through regulations contained within the Hedgerow Regulations 1997. Also individual trees and hedgerows can be protected by the Town and Country Planning Act 1990.
Botanical Value	There are 60 plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 where it is an offence to intentionally pick or uproot or destroy any of theses plant species.
Ecological Enhancement	In March 2012 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged*. Usually when reviewing how ecological enhancements can be implemented the Local Biodiversity Action Plan for the area is considered. For new buildings guidance such as in the following will be used: Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing.
Designated Protected Areas	Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives. European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats supports. Laws stipulate that SSSIs, SPAs and SACs have to be maintained in a 'favourable condition' which requires efforts to preventing any potential impacts to these sites.

5 Methodology

5.1 Desk Study

Data regarding any known statutory or non-statutory sites in addition to any records for protected species was requested from the following sources:

Consultee	Requested Data	Search Radius
Local Ecological Records Centre	Protected and notable species records	2km
MAGIC Maps	National and International Site Designations	2km

5.2 Protected Species Assessment

5.2.1

The habitats on site were assessed for the suitability to support protected species in relation to the habitat type found at the site. It is important as in some cases the legal protection of a protected species extends to the habitat in which it lives. Any incidental sightings of field signs were noted at the time of survey.

5.2.2

Where evidence of, or the confirmed presence of a Protected Species is identified, further, species specific surveys may be recommended to ensure that the presence or otherwise of a legally protected species is fully considered prior to the determination of any planning approval.

5.3 Surveyors

The survey was carried out by Mark Woodcock BA (Hons). Ecologist.
Supervised by Chris Needham BSc (Hons) MSc, MCIEEM who has been a professional ecologist for 15 years and is appropriately qualified and experienced to undertake this kind of work.

5.4 Limitations

Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, and the results of the desk study and our survey of the site. This report pertains to this information only.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats, know distribution of the species is the local area and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group.

5.5 Report Lifespan

Given the transient nature of the subject we would consider the survey results contained to be accurate for 2 years.

5.6 Potential Bat Roost Assessments

All ecological issues were considered in relation to the habitats at the site and in the vicinity - although bats were a minor consideration due to the building on the site. Bats often use different roosting sites at different times of the year. Consequently, it is not always possible to confirm usage by bats in a structure such as a building or a tree. Surveys have therefore to search the structure for obvious use, such as the presence of bats or bat droppings, but also the survey has to assess the potential of a structure (building or a tree) for roosting bats in accordance with best practice guidelines (Hundt *et al* 2012).

The assessment is placed into the following categories:

No Potential: The building is wholly unsuitable for a bat roost.

Negligible Potential: Bats are very unlikely to use the structure for roosting. Suitable cavities may exist but these are open to wind, rain or disturbance. However, single bats are capable of turning up in the most improbable of places. It is always stressed that in the unlikely event that bats are found within the structure of the building while work is in progress, work should stop immediately in that area and advice sought from an ecological consultant or Natural England.

Low Potential: This category describes a structure that has some potential to support roosting bats but is less than ideal in some way. For example, the feature may be subject to some kind of intermittent disturbance. Therefore the structure would require a precautionary further additional (one) presence/absence survey at a time of year when bats are active.

Moderate Potential: This category describes a structure considered to have suitable habitat or features for roosting bats but no evidence of occupation by bats has been found during the survey. Features considered to have adequate potential would include cavities of appropriate dimensions that are generally free from disturbance and free from fluctuations in the weather. Such features are likely to be subject to three further surveys (presence/absence surveys) at a time of year when bats are active.

Confirmed: This category is where positive evidence of bats has been recorded. For example, bats are found; bat droppings may be present at a suitable location for roosting bats; existing bat records may be associated with the structure. A licence from Natural England is likely to be required if a bat roost is to be disturbed by the development.

6 Results

6.1 Habitat Survey

The site comprises an area of land approximately 0.3386 hectares (0.8367 acres) in size. The site possesses a 4 buildings, consisting of 1 residential property, 1 shed, 1 garage and one large structure made up of 20 garages. Poor Scrubland area encompasses the buildings on site. A selection of mature and immature trees are situated around the project site. Residential housing surrounds the site. It is understood proposals are for residential development. Proposed works will see the current building demolished.

Scattered Scrub

The site comprises of mostly rough scrub land, with some cleared areas. The scrub land is made up of common species such as Bramble (*Rubus fruticosa*), Nettle (*Urtica dioica*), Ragwort (*Jacobaea vulgaris*) and Cleavers (*Galium aparine*). The species listed are common, widespread and indicative of disturbed land with low ecological value.

Trees

The site includes a number of mature and immature trees. Species on site comprise of Sycamore (*Acer pseudoplatanus*), Alder (*Alnus glutinosa*), Sliver Birch (*Betula pendula*), Hawthorn (*Crataegus monogyna*) and immature apple trees (*Malus domestica*). The trees on site were seen to have negligible potential for supporting roosting bats due to the lack of rot holes and suitable habitats such as ivy. A number of pollarded trees exist on site showing efforts have been made to stop the land becoming too over grown.

Photograph 1 Rear of Building 2. Small allotment area containing rough scrub and immature apple trees.	
Photograph 2 Northern boundary Rough scrub land and tree cuttings cover the area, with mature trees present.	
Photograph 3 Mature Sycamore (*Acer pseudoplatanus)* within the North of site.	

Photograph 4 Open area of the site where vegetation has been cleared.	
Photograph 5 NE of site Scattered scrub land with conifer trees.	

6.2 Bat Building Assessment

Building 1

External

Building 1 is a two storey brick built building with a pitch tiled roof. The fascia boards fit flush to the elevations leaving no access points for bats. The roof is in good condition with no cracked or slipped roof tiles detected. An elevated survey of the roofing structure could not be undertaken safely on initial survey. The building is pebble dashed offering no brickwork that could harbour suitable refugia e.g. gaps / crevices.

Internal

An internal inspection of the building could not be undertaken at the time of the survey. This building was awarded **Negligible Potential** for roosting bats

Building 2

External

Building 2 is a small wooden shed with pinned felt roof. The building was in a poor state of repair with openings between roof and elevation limiting the buildings sheltering properties. The low elevation presents poor predator protections for roosting bats.

Internal

An internal inspection of the building could not be undertaken at the time of the survey. This building was awarded **Negligible Potential** for roosting bats.

Building 3

External

Building 3 is a small concrete and corrugated metal garage with a flat roof. The garage was sealed and tight however a small gap existed above the garage door. This building was small and heavily stored with tools and gardening equipment limiting its potential to support roosting bats.

Internal

An internal inspection of the building could not be undertaken at the time of the survey. This building was awarded **Negligible Potential** for roosting bats

Building 4

External

Building 4 was a large single storey block of garages made of corrugated material with corrugated metal doors, the building was in a poor state of repair with damaged and holes in the elevations around the structure, fascia boards were fitted around the building flush to the elevations offering no potential refugia for roosting bats. The presence of ivy was also seen growing on the building.

Internal

An internal inspection of the building could not be undertaken at the time of the survey. However the interior could be seen through holes in the exterior elevations and the roof was made up of corrugated sheets bolted directly to metal beams offering no sheltered bat refugia opportunities.

This building was awarded **Negligible Potential** for roosting bats

6.3 Building assessment

	Building Number: Building 1	
Bat Risk Category:	**Negligible**	**Layout/Photographs:**
Building Description:	Two storey (northern end single storey) building. Roof structure/tiles in good condition.	
Protected Species Evidence:	<u>Bats</u> No evidence of bats recorded. Internal inspection not achieved. No gaps between fascia and elevation recorded.	
Recommendations:	Based on the external survey this building was awarded a negligible category, it must be noted however that an internal inspection could not be achieved at time of survey.	

	Building Number: Building 2	
Bat Risk Category:	**Negligible**	**Layout/Photographs:**
Building Description:	Felt lined wooden shed. Felt tight and well-sealed. Building in well maintained condition.	
Protected Species Evidence:	<u>Bats</u> No evidence of bats recorded. Internal inspection not achieved. Access points for bats seen however due to its state of repair and size, highly unlikely to be used by bats	
Recommendations:	Although gaps existed externally on the structure that allow access for roosting bats, these are greatly exposed and would be mostly unattractive as bat refugia. No further surveys recommended.	

	Building Number: Building 3	
Bat Risk Category:	**Negligible**	**Layout/Photographs:**
Building Description:	Small concrete and sheet metal garage. Building in an un-maintained condition.	
Protected Species Evidence:	<u>Bats</u> No evidence of bats recorded. Internal inspection not achieved. Access point above door noted but due to the nature of the buildings construction, bat presence is unlikely.	
Recommendations:	Although gaps existed externally on the structure that allow access for roosting bats, these are greatly exposed and would be mostly unattractive as bat refugia. No further surveys recommended.	

	Building Number: Building 4	
Bat Risk Category:	**Negligible**	**Layout/Photographs:**
Building Description:	Corrugated material structure comprising of 20 garages. Edges tight and well-sealed. Building in an unmaintained condition.	
Protected Species Evidence:	<u>Bats</u> No evidence of bats recorded. Internal inspection not achieved. Access points seen but due to the nature of the buildings construction, bat presence is unlikely.	
Recommendations:	Although crevices existed externally on the structure that could house roosting bats, these are greatly exposed and would be mostly unattractive as bat refugia. No further surveys recommended.	

6.3 Interpretation of Ecological Data Search

Ecological Data Search

The requested Ecological Data Search data has yet to be received at time of writing.

6.4 MAGIC MAPS

A search of the online geographic mapping tool MAGIC revealed the following National or International site designations within 2km of the project area.

- Kingfisher Trail LNR: This urban fringe LNR is a trail that runs alongside the Trent and Mersey Canal, through the Shobnall, Horninglow and Eton districts of Burton upon Trent. Construction on site will not affect this nature reserve due to the fact the site is land locked and approximately 800 metres from the water course.

6.5 Protected Species and Ecological Features Assessment

The following lists the Findings relating to the ecological issues relevant to the project area:

Biodiversity Constraints	Relative Issues	Findings
Breeding Birds	**Yes**	Shrubs and trees within the project area offer some suitable nesting opportunities for breeding birds.
Roosting Bats	**No**	Signs of bats were not found. The buildings have **Negligible Potential** for roosting bats. It should be noted that internal inspections of the buildings could not be achieved due to access issues. Only immature and mature trees exist on site that are unsuitable for roosting bats.
Reptiles	**No**	The site is surrounding by residential housing with a lack of connectivity for outlying biodiversity.
Weeds	**No**	Noxious weeds were not found.
Trees and Hedgerows	**Yes**	A variety of mixed deciduous trees were found on site and a beech hedgerow exists against the western boundary.
Botanical Value	**No**	The area consists of hard standing areas and scattered scrub consisting of common species.
Ecological Enhancement	**Yes**	Where possible efforts should be made to incorporate ecological enhancements.
Designated Protected Areas	**No**	One local nature reserve (LNR) was found within a 2km radius of the project area. However, the proposed development work will not impact this LNR.

7 Evaluation & Recommendations

7.1 Habitats and Botanical Interest

Overall the habitats on site are considered to be of a low ecological value. No notable or protected floral species were noted within the site boundary which consisted of residential property and hard-standing.

Ecological value of the site is largely concentrated within the fragmented hedgerow and semi mature and mature trees on site. Consequently, retaining and/or enhancing this features would be complimentary towards the sites ecology.

7.2 Breeding Birds

The trees and scrub on site offer suitable habitat for breeding birds. Consequently building work on this building should avoid the bird breeding season. Where this is not possible then building work should be done under the supervision of a suitably qualified ecologist. Timing: Building work and vegetation clearance should avoid March to August inclusive.

7.3 Bats

The principle concern was the likelihood and potential of the site to accommodate roosting bats within buildings and trees.

The mature trees on site possessed a lack of rot holes / crevices that could support bat roosts.

No evidence of bats were recorded during an external inspection of the buildings. There was no access to the internal space of the buildings during the survey. Consequently an internal inspection of the buildings was not possible.

Suitable gaps were not found along the edge of the roofs. However, Building 1 expressed areas of fascia board that had been damaged, offering potential refugia for roosting bats/ Cobwebs were present along all of these damaged areas indicating

that bats had not recently been using them. Bat dropping were not found in the vicinity.

All the other buildings were wholly unsuitable for supporting bat roosts due to their structural design and building material composition.

The buildings on site were therefore assessed to have **Negligible Potential** for supporting roosting bats. The buildings do not require any further surveys.

7.4
Bats, particularly immature individuals, can be very transient when seeking roosting opportunities. It is always stressed that in the unlikely event that bats are found within the structure of the building while work is in progress, work should stop immediately in that area and advice sought from an ecological consultant or Natural England.

8 Ecological Enhancement

As with all development sites; efforts should be made to support Local Biodiversity Action Plans where possible. Where possible opportunities should be explored to incorporate ecological enhancement schemes within the proposed development such as native planting for pollinators and erecting bat and bird boxes for species such House Sparrow (*Passer domesticus*). Strategically placed bat tubes would also add to the ecological value of the site.

Timing of enhancement schemes: Post construction.

8.1 House sparrow (*Passer domesticus*)

The site, with its location and set proposals, presents itself as an ideal candidate to undertake simple House sparrow conservation endeavours. This species is RSPB red listed due to an estimated 71% decline nationally across both urban and rural environments. The erection of sparrow specific design nest boxes would express well considered ecological enhancement measures and be viewed positively in light of the NPPF (2012) which seeks biodiversity enhancements through the planning process. See below for potential House sparrow nest box designs. Such nest boxes are widely available.

House sparrow nest box designs. Suitable for mounting on all building structures.

8.2 Native planting for pollinators

Over the last 10 years 72% of UK butterfly species have declined in abundance and a national awareness exists regarding the continued fall of bee populations. It is widely accepted that a 97% decline in our flower-rich grassland since the 1930's has played its part in these conservation issues. The planting of native wildflower species is an ideal approach to benefiting local biodiversity. Establishing such species will attract pollinators and other invertebrates; which in turn will provide suitable foraging opportunities for bird and bat species. Such endeavours would express well considered ecological enhancement measures and be viewed positively in light of the NPPF (2012) which seeks biodiversity enhancements through the planning process.

Ideal planting species are as follows:

Common name	Scientific name
Birdsfoot trefoil	*Lotus corniculatus*
Cornflower	*Centaurea cyanus*
Evening primrose	*Oenothera biennis*
Field scabious	*Knautia arvensis*
Foxglove	*Digitalis purpurea*
Lady's bedstraw	*Galium verum*
Common knapweed	*Centaurea nigra*
Ox-eye daisy	*Leucanthemum vulgare*
Red campion	*Silene dioica*
Vipers bugloss	*Echium vulgare*

Wildflower seed mixes encompassing such species are widely available.

9 References

Bat Conservation Trust's '*Good Practice Survey Guidelines*' (Rev 2012).

Bell, S. McGillivary, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Burns F, Eaton MA, Gregory RD, et al. (2013) *State of Nature report*. The State of Nature partnership

Byron, H (2000) *Biodiversity and Environmental Impact Assessment: A Good Practice Guide for Road Schemes*. The RSPB, WWF-UK, English Nature and the Wildlife Trusts, Sandy.

English Nature. (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods: Breeding Bird Survey* (pages 389-393). RSPB.

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Joint Nature Conservation Committee (JNCC) *Handbook for Phase 1 habitat survey* (2003). JNCC.

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

Mitchell-Jones A.J. *Bat Mitigation Guidelines* 2004. English Nature.

Strachan R. (1998) *Water Vole Conservation Handbook*. English Nature, the Environment Agency and the Wildlife Conservation Research Unit.

Sutherland, W.J. (1996) *Ecological Census Techniques*. Cambridge University Press.

Treweek, J. (1999) *Ecological Impact Assessment*. Blackwell Science.

Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing.

Appendix 1

Phase 1 habitat plan

Key

Poor-scrub land		Shed	
Corrugated Garage		Immature tree	
Hard standing		Project boundary	
Mature tree		Beech hedge	

Harbury Street, Burton upon Trent
October 2014

Appendix 2

Magic Data

Two kilometre radius search of the project site.

Local Nature Reserves (England)

Reference	1475817
Name	KINGFISHER TRAIL
Hectares	1.81
Hyperlink	http://www.lnr.naturalengland.org.uk/special/lnr/lnr_deta thareid=1475817

Areas of Outstanding Natural Beauty (England)
No Features found

Environmentally Sensitive Areas (England)
No Features found

National Nature Reserves (England)
No Features found

Sites of Special Scientific Interest (England)
No Features found

Appendix 3

Map supplied by client.

Appendix 4

Ecological Data Search Information

Not yet received.