

NYMNP

15/03/2021

## Design and Access Statement

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Conversion of Redundant Barn to form 2 Holiday Cottages  
South East of the Granery, Suffield, YO13 0BJ



imaginative architecture + engineering design

<sup>TM</sup>  
**bhd**  
partnership

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## Contents .....

### 1.0 General

#### 1.1 The Statement

#### 1.2 Property & Background

### 2.0 Proposals

#### 2.1 Design & Proposals

#### 2.2 Requirement

### 3.0 Context/Policies

#### 3.1 Policies & Context

### 4.0 Access

#### 4.1 External

#### 4.2 Internal

## 1.0 General

### 1.1 The Statement

This statement is submitted to accompany an application to North York Moors National Park Authority, for the conversion of an existing redundant barn into two self-contained Holiday Cottages.

Details of the proposals are shown on drawings: -

- D11893-01 Location & Block Plan
- D11893-02 Existing Plans and Elevations
- D11893-03 Proposed Plans and Elevations

Other documents provided with this application are: -

- Bat Scoping Survey, by Wold Ecology
- Structural Report of the Building, by Richard Birdsall I.C.E
- Heritage Statement
- Design & Access Statement

### 1.2 Property & Background

The building sits within a former range of buildings once creating a 'Farmstead.' This range of buildings now houses a variety of uses, including retail, residential and business. Other farm buildings are situated immediately to the east.

The range is of traditional construction, with walling formed out of a local coursed stone. The roof is a timber construction, with timber trusses supporting purlins and rafters. The roof is finished externally with clay tiles. It also incorporates a series of 4 No. rooflights to the west elevation roof.

Only two elevations of the building are visible, these are the front (east) and side (south elevations).

The rear (west) elevation has both a traditional stone and tiled building abutting it, along with a large modern sheeted building, which appears to fill the former farm yard.

The side (north) elevation continues as a traditional range. This is the subject of recent Planning approvals.

To the east is a 'Pole Barn,' with sheeted roof and part clad side.

The large opening to the east is partly covered by this Pole Barn.

The building is also 'Listed'. Its Heritage relevance, asset description, etc. are covered in the Heritage Statement.

Parking areas and storage are located on the east elevation.

Internally the building is open to the underside of the roof. The floor is a modern concrete finish. There are 4 No. rooflights in the rear roof slope.



Photograph 1  
East Elevation inc. Pole Barn





Photograph 2  
South gable elevation

## 2.0 Proposals

### 2.1 Design and Proposals

As mentioned in section 1.0, the scheme involves conversion of this building to form two holiday cottages.

A dividing wall will split the entrance into 2 sections. This wall will 'dog legged' to improve the space available for Cottage B.

The only other internal walling will be used to create a storage cupboard and shower room in each cottage.

A staircase will provide access to open mezzanine bedrooms, one per property.

The ground floors will accommodate living, dining and kitchen areas, along with a shower room and cupboard. The mezzanine will provide sleeping areas.

This form of design allows the full height and proportions of the existing building to be visualized.

The large entrance opening is to be fully glazed. It's 3.3m height creates a large area for natural light and ventilation.

This is complimented by the 4 existing rooflights and the proposed 2 new rooflights in the east elevation. It is also proposed to reinstate a former opening at high level in the gable and create 2 small windows at ground floor in the same gable.

These new openings will be small and have no glazing bars to give a simple rural appearance.

For compliance with Building Regulations, the first-floor gable window in Cottage A and a rooflight in Cottage B, will provide adequate means of escape. This will be complimented by the required fire detection and alarm system.

Externally the Pole Barn will be refurbished to provide external covered amenity space for both cottages.

A parking space is also being created for each cottage. As can be seen from the photographs, this area is already used for such things.

## 2.2 Requirement

As with most rural former farmsteads, diversification is a requirement to create income.

Tourism is a major part of the sustainability of the National Park as a whole and the reuse of existing buildings is an ideal use for buildings which, due to their age, do not often provide suitable spaces for modern commercial uses.

Our clients have continued forward planning for their property to ensure its survival and create facilities which benefit the area in general.

They run a farm supplies store, which serves the areas more traditional industry from the same site. This should be recognised as a major asset for the Authority because as previously mentioned, utilising traditional farmsteads is difficult. The large steel framed, profiled sheeted building serves the Farm Stores spatial requirements. This leaves the rural traditional buildings ideal for conversion.

The two Holiday Cottages will compliment the existing activity on the site and provide the required commercial input.

### 3.0 Context/Policies

#### 3.1 Context & Policies

- Strategic Policy J      Tourism & Recreation
- Policy UE1              Location
- Policy UE4              New Holiday Accommodation within Residential Curtilages
- Policy CO12             Conversion of Existing Buildings in open Countryside
- Strategic Policy I        (See Heritage Statement)
- Policy ENV 11          (See Heritage Statement)

These policies all seek to protect the special qualities of the National Park, by allowing development like this proposal but within a framework.

The provision of the Cottages will not lead to harm of the local landscape. The conversions will be kept within the shell of the existing building. Also, the covered area within the Pole Barn will provide visual barriers for outside storage such as bikes, etc.

The cottages are to be located on a site which will continue to be dominated by other existing traditional uses, agriculture, farm store and dwellings.

It is set within an area of substantial space so that there will not be harm to the neighbourhood.

Policy UE1 supports the development of tourism spaces such as the cottages where it involves the conversion of an existing building.

As the property is within the curtilage of our clients other buildings, UE4 should also be considered. Again, it recommends the use of existing buildings which are of architectural or historical interest, which in the case of the subject building, is correct.

Should the existing building be classed as sited in open countryside, then Policy CO12 becomes relevant.

This supports such development provided change is kept to a reasonable level without extension and that the building is structurally sound.



## 4.0 Access

### 4.1 External

External access is via the country lanes running through Suffield. Once on the site the access which already exists is good, with clear visibility and a wide entrance.

Parking is provided immediately adjacent to the Cottages.

### 4.2 Internal

The cottages have good level access from the parking areas and internally the open plan space creates a very accessible environment. This is compliant with Building Regulations Part M.

NYMNP

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## Heritage Statement

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**Contents .....**

- 1.0 General Introduction
  
- 2.0 Property & Background
  
- 3.0 Proposals, Impact and Mitigation
  
- 4.0 Policies and Influence

## 1.0 General Introduction

This statement is submitted to accompany an application to North York Moors National Park Authority, for the conversion of an existing redundant barn into two self-contained Holiday Cottages.

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- Heritage Statement
- Design & Access Statement



## 2.0 Property & Background

Northfield Farmhouse which is the pre-eminent building on the site and situated to the north east of the subject barns, is a Listed Building. Its List Entry is 1172831.

The subject building is, we believe, to be treated as a curtilage building to Northfield Farmhouse.

Whilst there is a description of the Farmhouse, it is noted there is no description of the subject building or other curtilage buildings.

The building sits within a former range of buildings once creating a 'Farmstead.' This range of buildings now houses a variety of uses, including retail, residential and business. Other farm buildings are situated immediately to the east.

The range is of traditional construction, with walling formed out of a local coursed stone. The roof is a timber construction, with timber trusses supporting purlins and rafters. The roof is finished externally with clay tiles. It also incorporates a series of 4 No. rooflights to the west elevation roof.

Only two elevations of the building are visible, these are the front (east) and side (south elevations).

The rear (west) elevation has both a traditional stone and tiled building abutting it, along with a large modern sheeted building, which appears to fill the former farm yard.

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The large opening to the east is partly covered by this Pole Barn.

Parking areas and storage are located on the east elevation.

Internally the building is open to the underside of the roof. The floor is a modern concrete finish. There are 4 No. rooflights in the rear roof slope.



Photograph 1  
East Elevation inc. Pole Barn



Photograph 2  
Existing Roof Truss

### **3.0 Proposals, Impact & Mitigation**

As mentioned in section 1.0, the scheme involves conversion of this building to form two holiday cottages.

A dividing wall will split the entrance into 2 sections. This wall will 'dog legged' to improve the space available for Cottage B.

The only other internal walling will be used to create a storage cupboard and shower room in each cottage.

A staircase will provide access to open mezzanine bedrooms, one per property.

The ground floors will accommodate living, dining and kitchen areas, along with a shower room and cupboard. The mezzanine will provide sleeping areas.

This form of design allows the full height and proportions of the existing building to be visualized.

The large entrance opening is to be fully glazed. It's 3.3m height creates a large area for natural light and ventilation.

This is complimented by the 4 existing rooflights and the proposed 2 new rooflights in the east elevation. It is also proposed to reinstate a former opening at high level in the gable and create 2 small windows at ground floor in the same gable.

These new openings will be small and have no glazing bars to give a simple rural appearance.

For compliance with Building Regulations, the first-floor gable window in Cottage A and a rooflight in Cottage B, will provide adequate means of escape. This will be complimented by the required fire detection and alarm system.

To conserve the structural integrity of the building, an internal block skin will be constructed which the existing stone walls can be tied back to. This allows the variation in horizontal and vertical alignment to be retained without any rebuilding.

The floor is relatively new concrete construction. It is intended to retain this and provide an insulated floating floor on top. The insulation would be provided by Hemp blocks, by 'Isohemp' or similar, laid over the existing concrete and finished by either a limecrete screed or a 'floating' layer of timber.

The roof is to be re-laid. Existing tiles are to be removed and rotten timber also stripped out. Repair and replace timber before laying a breathable roofing felt with battens and clay handmade tiles.

The roof is to be underdrawn with Steico Flex Woodfibre insulation and plasterboard.



The main roof purlins and roof trusses are to be left exposed where appropriate.

Truss 'T1' will form the edge of the mezzanine and will remain fully visible and unaltered.

Truss 'T2' will remain unaltered and be partly visible and part within the separating wall.

Truss 'T3' will be fully visible. Some alteration will be required to the bottom cord to allow passage in the sleeping area.

In respect of the south gable wall, a first-floor window is to be inserted within a previous opening.



Photograph 3  
South gable with outline of previous opening visible

Two further openings are proposed in this gable to the ground floor. They traditionally sized at 1m square and plain in appearance. They have been positioned to give symmetry to the gable.

Two new conservation style rooflights, with black frames are to be positioned in the north roof slope. They will be visually obscured by the Pole Barn roof.

Externally the Pole Barn will be refurbished to provide external covered amenity space for both cottages.

A parking space is also being created for each cottage. As can be seen from the photographs, this area is already used for such things.

The walls of the building are, where required, to be repaired using the existing stone. They are then to be fully repointed using a lime-based mortar.

All windows and door frames are to be timber and painted with a heritage colour.

The Pole Barn fencing is to be vertical board up to 2m high. The board is to be sawn finished with no added colour just preservative.

Parking bays are to be topped with gravel.

#### 4.0 Policies & Influence

In respect of this Heritage Statement, it is anticipated that the following policies will be used when considering the application: -

- Strategic Policy I      The Historic Environment
- Policy ENV11          Historic Settlements and Built Heritage

Listed Buildings and therefore those within the curtilage are specifically mentioned within the above policies.

The buildings are, by virtue of their heritage, assets to the area and add to the amenity of that area.

Developments are to be carried out to ensure the impact of the 'asset' is not eroded. This is set out in more detail within section 4.0.

The proposals seek to comply with this requirement. It is also considered relevant that the subject buildings are fronting away from Northfield Farmhouse. The inner, west and south elevations view towards the farmhouse but are separated by the steel frame building.

We consider that the proposals will conserve the buildings by stimulating financial investment, which will be ongoing as the cottages themselves become an asset for the sustainability of the site itself.

Section 4.0 sets out mitigation proposed in both the design and the construction methods proposed.



NYMNP A

25/01/2021

# Inspection of a Barn

at

Northfield Farm, Suffield, YO13 0BJ

for

Christine Maw

By R.O. Birdsall M.Sc, M.I.C.E

Chartered Engineer



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**Contents .....**

1.0 Introduction

2.0 Observations

3.0 Conclusion and Recommendations

4.0 Photographs

## **1.0 Introduction**

- 1.1 We confirm that we made an inspection of a barn at Northfield Farm, Suffield, YO13 0BJ, on 11<sup>th</sup> January 2021.
- 1.2 The inspection and report is confined to matters directly relating to structural stability.
- 1.3 The external walls consist of sandstone, approximately 400mm thick.

## **2.0 Observations**

- 2.1 The east facing elevation can be seen in photograph 1. The wall is in reasonable condition except for some isolated areas with lack of mortar, see photograph 2. Some render has been applied over the lower part of the wall, see photograph 3. There is a timber lintel over the doorway, see photograph 4.
- 2.2 The south facing gable wall can be seen in photograph 5. The wall is in reasonable condition except for some slight cracking near the northern corner, see photograph 6.
- 2.3 Part of the west facing wall can be seen in photograph 7. A diagonal and vertical crack can be seen in photograph 8.
- 2.4 The main part of the west facing wall can be seen in photograph 9. The wall is in reasonable condition except for an area at the south end, which will need to be filled with masonry, see photograph 10.
- 2.5 The external face of the roof is in reasonable condition, see photographs 1 and 7.
- 2.6 The internal roof support consists of timber rafters, timber purlins and 3 no. timber roof trusses, see photograph 11.
- 2.7 The internal face of the walls are in reasonable condition except for some cracking in the south-east corner, see photograph 12. Also, there is an area on the south gable which will need to be re-constructed, see photograph 13.
- 2.8 We have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

### **3.0 Conclusions and Recommendations**

- 3.1 We are satisfied that the barn can be safely converted into residential use subject to the following:
- 3.2 A new blockwork internal leaf should be constructed on a reinforced concrete floor slab. The blockwork should support roof loads and first floor loads.
- 3.3 Timber lintels should be replaced with hidden steel lintels.
- 3.4 The external walling should be re-pointed and all areas of cracking carefully repaired.
- 3.5 The panel of missing masonry on the west wall should be constructed on a new concrete foundation.
- 3.6 The missing masonry on the internal face of the south wall should be carefully reconstructed.
- 3.7 We understand that the roof tiles are to be removed and then re-laid. Once the tiles are removed, the existing timbers should be overhauled and providing they comply with Building Regulation, they could be re-used.
- 3.8 All aspects of the conversion should comply with current Building Regulation.



#### 4.0 Photographs



Photograph 1  
Northfield Farm, Suffield, YO13 0BJ



Photograph 2  
Northfield Farm, Suffield, YO13 0BJ





Photograph 3  
Northfield Farm, Suffield, YO13 0BJ



Photograph 4  
Northfield Farm, Suffield, YO13 0BJ





Photograph 5  
Northfield Farm, Suffield, YO13 0BJ



Photograph 6  
Northfield Farm, Suffield, YO13 0BJ





Photograph 7  
Northfield Farm, Suffield, YO13 0BJ



Photograph 8  
Northfield Farm, Suffield, YO13 0BJ





Photograph 9  
Northfield Farm, Suffield, YO13 0BJ



Photograph 10  
Northfield Farm, Suffield, YO13 0BJ





Photograph 11  
Northfield Farm, Suffield, YO13 0BJ



Photograph 12  
Northfield Farm, Suffield, YO13 0BJ





Photograph 13  
Northfield Farm, Suffield, YO13 0BJ



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Northfield Barn, Suffield, Y013 0BJ

Preliminary Bat Roost Assessment, January 2021.

NYMNP

25/01/2021

	Staff Member	Position
Lead surveyor(s) :	Chris Toohie M Sc., MCIEEM	Ecologist.
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## TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	3
2.0	INTRODUCTION	4
3.0	BACKGROUND TO SPECIES	6
4.0	ASSESSMENT METHODOLOGY	9
5.0	RESULTS	11
6.0	IMPACT ASSESSMENT – in the absence of mitigation	19
7.0	MITIGATION & COMPENSATION	19
8.0	BIRDS	22
9.0	REFERENCES	23
10.0	APPENDICES	24



## 1.0 EXECUTIVE SUMMARY

1.1 In January 2021, Wold Ecology was commissioned by Christine Kay to undertake a bat scoping survey at Northfield Barn, Suffield. The site is located at approximate National Grid Reference SE 98680 90732 in North Yorkshire.

1.2 The preliminary bat roost assessment results are summarised below:

		Application Site Status
Proceed with caution, timing constraints	Birds	Birds are afforded various levels of protection and levels of conservation status on a species by species basis. The most significant general legislation for British birds lies within Part 1 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation, it is an offence to, kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, take or destroy an egg of any wild bird. All nests should remain undisturbed and intact until after the breeding bird season – mid February to early September. Planning consent for a development does not provide a defence against prosecution under this act. No bird's nests were observed in the barns (refer to section 8.0).
No further surveys required – Barn 1 Pole Barn	Bats	There was no evidence to suggest the presence of bats and in its current condition; it is extremely unlikely that the studied barns supports a bat roost. It is considered that the proposed development will have none/negligible impacts on bat species.
No constraints	Barn owl	There was no evidence of barn owls <i>Tyto alba</i> roosting in the buildings. No further surveys recommended.

1.3 **Bat roosts are protected throughout the year, whether bats are present or not.**

1.4 All bats and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and are further protected under the Conservation of Habitats and Species Regulations 2017 (as amended). Should any bats or evidence of bats be found prior to or during development, work must stop immediately, and Natural England contacted for further advice. This is a legal requirement under the aforementioned acts and applies to whoever carries out the work.

1.5 Planning consent for a development does not provide a defence against prosecution under this act.

1.6 Habitat enhancement for bats should be implemented as outlined in section 7.0, in order to improve foraging opportunities to bats in the local area.

1.7 The data collected to support the output of this report is valid for one year. This report is valid until **January 2022**. After this time, additional surveys need to be undertaken to confirm that the status of the building, as a bat roost, has not changed.

## 2.0 INTRODUCTION

### 2.1 Background Information

2.1.1 In January 2021, Wold Ecology was commissioned by Christine Kay to undertake a bat scoping survey at Northfield Barn, Suffield. The site is located at approximate National Grid Reference SE 98680 90732, in North Yorkshire.

2.1.2 The Application Site comprises the following:

- Barn
- Pole barn

2.1.3 The proposed development includes the demolition of the pole barn and the conversion of the barn into accommodation including two new skylights.

### 2.2 Survey Objectives

2.2.1 The site was visited and assessed on 8<sup>th</sup> January 2021; this was to determine whether the barns contained bat roosts or was suitable to support roosting bats during other times of the year. The work involved the following elements:

Survey objective	Yes/No	Comments
<b>Determine presence/absence of roosting bats</b>	Yes	A daytime, visual inspection for bat roosts and roosting bats. Internal inspection of all roof voids. An assessment of the on-site suitability for bats and the likelihood of their presence. Desktop study.
<b>Determine bat usage e.g.s maternity roost, summer roosts</b>	Yes	An assessment of whether bats are a constraint to the development. Hibernation survey. Endoscope survey (where accessible) A bat activity survey has not been undertaken.
<b>Identify swarming, commuting, or mating sites</b>	No	N/A
<b>Other</b>	Yes	The production of a non-technical summary of the legal implications behind bat presence. Report the findings of the field survey work and identify recommendations for a potential mitigation strategy.
<b>Birds</b>	Yes	The visual inspection also recorded any other visible active/disused nests and bird activity within the barns.



**NORTH** 

Scale: 1:25,000

Drawing title:  
Location Map

**KEY**

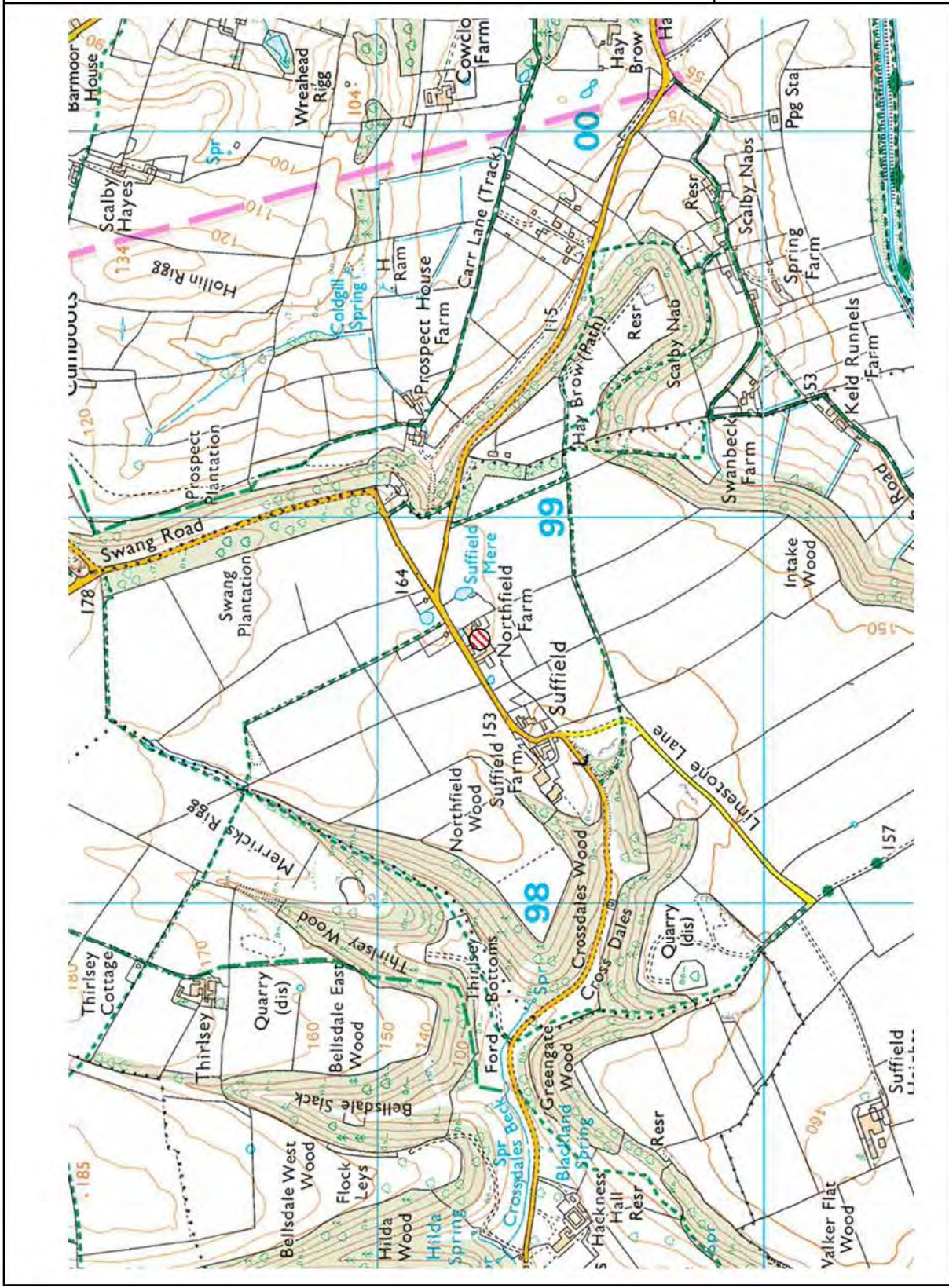
 Application Site

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### **3.0 BACKGROUND TO SPECIES**

#### **3.1 Ecological overview**

3.1.1 There are seventeen species of bat that currently breed in the UK. There is a wide variety of roost type and ecological characteristics between species and for this reason it is necessary to determine the species of bat and the type of roost resident in a structure prior to development. Roosts are utilised by different species of bat, at different times of year for different purposes i.e. summer, breeding, hibernating, and mating etc. (for more detailed information see section 9.0).

3.1.2 Bat populations have undergone a significant decline in the latter part of the 20<sup>th</sup> century; the main factors cited for causing loss and decline include:

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows, and other suitable prey habitats.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

#### **3.2 Legal Framework**

3.2.1 A bat survey is required prior to planning permission being granted for a development, in order to prevent the potential disturbance, injury and /or death of bats and the disturbance, obstruction and/or destruction of their roosting places. This is in compliance with the Conservation of Habitats and Species Regulations 2017 (as amended), provision 41 states an offence is committed if a person:

- (a) Deliberately captures, injures, or kills any wild animal of a European protected species (i.e. bats),
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal.

3.2.2 Section 9 of the Wildlife and Countryside Act (1981) states:

- It is an offence for anyone without a licence to kill, injure, disturb, catch, handle, possess or exchange a bat intentionally. It is also illegal for anyone without a licence to intentionally damage or obstruct access to any place that a bat uses for shelter or protection.

3.2.3 Bat roosts are protected throughout the year, whether or not bats are occupying a roost site.

#### **3.3 Planning Policy Guidance**

3.3.1 A bat survey is a requirement of the Local Planning Authority (LPA), as part of the planning application process. This is specified in the following legislation:

- National Planning Policy Framework (NPPF): Conserving and Enhancing the Natural Environment.

3.3.2 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.

- 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.

3.3.3 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.

3.3.4 The LPA has to assess whether the development proposal would breach Article 12(1) of the Habitats Directive. If Article 12(1) would be breached, the LPA would have to consider whether Natural England was likely to grant a European protected species licence for the development; and in so doing the LPA would have to consider the three derogation tests:

- a) 'Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.

In addition, the LPA must be satisfied that:

- (b) 'That there is no satisfactory alternative'
- (c) 'That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

3.3.5 Relevant Case Law

- Woolley v Cheshire East Borough (2009).
- R. (Morge) v Hampshire County Council (2011).
- Prideaux v. Buckinghamshire County Council and Fcc Environmental UK Limited (2013).



- 3.3.6 The rulings summarise that if it is clear or perhaps very likely that the requirements of the Directive cannot be met because there is a satisfactory alternative or because there are no conceivable ‘other imperative reasons of over-riding public interest’ then the authority should act on that and refuse permission.’
- 3.3.7 The conclusion of the judgement is that LPAs must ensure that the option/alternative that best takes into account all the relevant considerations (not just EPS) should be the preferred option assuming that the other two tests specified in Article 16 (1) are also met.
- 3.3.8 The judgements also clarified that it was not sufficient for planning authorities to claim that they had discharged their duties by imposing a condition on a consent that requires the developer to obtain a licence from Natural England. Natural England considers it essential that appropriate survey information supports a planning application prior to the determination. Natural England does not regard the conditioning of surveys to a planning consent as an appropriate use of conditions.

## 4.0 ASSESSMENT METHODOLOGY

### 4.1 Status of species present in Yorkshire

Bat Specie	UK Status	UK Distribution	Yorkshire Distribution
Common Pipistrelle	Not threatened	Common & widespread	Common & widespread.
Soprano pipistrelle	Not threatened	Common & widespread	Less common than common pipistrelle but fairly widespread.
Nathusius's pipistrelle	Rare	Restricted. Throughout British Isles.	Scarce, bat detector records only.
Brown long-eared	Not threatened	Widespread	Widespread.
Daubenton's	Not threatened	Widespread	Widespread.
Natterer's	Not threatened	Widespread (except N & W Scotland)	Present
Brandt's	Endangered	England and Wales	Few confirmed records.
Whiskered	Endangered	England, Wales, Ireland & S Scotland.	Present.
Noctule	Vulnerable	England, Wales, S Scotland.	Widespread
Leisler	Vulnerable	Widespread throughout the British Isles, except N Scotland.	Rare (locally common in West Yorkshire).
Barbastelle	Rare	England.	No records since 1950's.

Source - <http://www.nyorkbats.freeseve.co.uk/bats.htm>

### 4.2 Data Review and Desk Study

4.2.1 Wold Ecology undertook a preliminary bat roost assessment on the adjoining barn during May 2019 and no evidence of bats were observed.

4.2.2 Wold Ecology employees, field surveyors and network of associate ecologists have recorded brown long-eared *Plecotus auritus*, noctule *Nyctalus noctula*, Natterer's *Myotis nattereri*, Daubenton's *Myotis daubentonii*, Brandt's *Myotis brandtii*, whiskered *Myotis mystacinus*, soprano pipistrelle *Pipistrellus pygmaeus* and common pipistrelle *Pipistrellus pipistrellus* within 5km of the Application Site. Wold Ecology bat records date from 2006 and include over 1000 bat activity surveys.

4.2.3 The following Natural England development licenses are located within 2km of the Application Site (source - [magic.gov.uk](http://magic.gov.uk)):

Specie	Distance from site	Destruction of a breeding site	Destruction of a resting site
Common pipistrelle	1.9km: W	Y	Y



### 4.3 Daytime and Visual Inspection

4.3.1 The daytime assessment identified whether the area had any signs of occupancy and/or bat usage. This took the form of a methodical search, both internally and externally, for actual roosting bats and their signs. Specifically, the visual survey involved:

- Assessment for droppings on walls, windowsills and in roof spaces
- Endoscope survey.
- Scratch marks and staining on beams, other internal structures and potential entrance and exit holes
- Wing fragments of butterfly and moth species underneath beams and other internal structures
- The presence of dense spider webs at a potential roost can often indicate absence of bats
- Assessment of crevices and cracks in the buildings to assess their importance for roosting bats
- The duration of the daytime, visual inspection was 35 minutes

#### 4.3.2 Summary of daytime inspection and visual survey

Date of each survey visit	Structure reference/location	Equipment used/available	Weather
08/01/21	Barn Pole Barn	Binoculars, 1million candle power clu-lite torch, micro Dart endoscope, Dewalt DW03050 Laser Measure. 3.9m telescopic ladders	2°C, 100% cloud. Beaufort 1, N. Light rain and sleet throughout
<b>Comments (to include # of surveyors used for each visit):</b> 1 surveyor undertook the visual inspection.			
<b>Personnel:</b> Chris Toohie (Class 2 bat license - 2019-44215-CLS-CLS and RC027) – 8 <sup>th</sup> January 2020			

#### 4.3.3 Personnel

Chris Toohie MCIEEM	Project Manager of Wold Ecology with over 11 years' experience surveying bat roosts for development licences. Chris has conducted over 850 bat surveys since 2006, held over 110 development licenses and is one of only 186 (January 2020) Natural England Registered Consultants who can hold a Bat Mitigation Class Licence.	RC027 and 2019-44215- CLS-CLS
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## 5.0 RESULTS

### 5.1 Habitat description

5.1.1 The Application Site is located 300m east of the small village of Suffield; in a rural location. The farmyard and complex of agricultural buildings are less than 1ha and the studied barns are immediately surrounded by a farmyard and is adjoined to the west by a large workshop/barn and a residential dwelling to the north. There are a number of agricultural buildings on site that have bat roosting potential.

#### 5.1.2 Adjacent Landscapes

5.1.2.1 Northfield Farm is surrounded by mixed agricultural land dominated by arable with grazed pastures. Woodland cover within 2km is good and occurs as interconnected plantations escarpments too steep for agriculture, shelterbelts adjacent to farms and small holdings and semi natural woodland. Whilst the Application Site is not directly connected to any optimum bat foraging habitat, habitats connectivity within 500m is provided by hedgerows that bound most arable fields and woodland cover.

5.1.2.2 Wold Ecology concludes that the immediately adjacent habitats could be used by small numbers of commuting and foraging bats. These habitats are not extensive and are similar to surrounding far yard and agricultural habitats and consequently, the Application Site and immediately adjacent habitats are not considered to be integral to the favourable conservation status of local bat populations. However, optimum bat foraging habitats are located in abundance within 500m of the studied granary.

#### 5.1.3 Habitat Summary

5.1.3.1 A summary of the surrounding habitat is (radius of < 2km from the site):

- Buildings – farm buildings and residential properties
- Hedgerow
- Hedgerows with trees
- Mature trees and woodland
- Hilda Wood
- Bellsdale Slack
- Thirsley Wood
- Crossdales Wood
- Greengate Wood
- Walker Flat Wood
- Everley Bank Wood
- Chapman Banks Wood
- Hackness Head Wood
- Loffyhead Wood
- Highgarth Wood
- Holly Wood
- Hawthorn Wood
- Swang Plantation
- Prospect Plantation
- Arable
- Mature private gardens






Scale: 1:25,000

Drawing title:  
Aerial Photograph

**KEY**

 Application Site

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## 5.2 Building descriptions

5.2.1 The bat survey and assessment targeted the following (see section 5.5):

- a. **Barn** – is two storeys and comprises local stone walls and a pitched roof covered with pan tiles; the roof was replaced circa 2010. The roof is supported by smooth sawn timbers and is underdrawn with a breathable roof membrane. The barn is used for storage.
- b. **Pole barn** - is two storey and comprises a smooth sawn timber and telegraph poles. The pitched roof and north elevation is covered in corrugated tin sheets. The barn is used for storage.

5.2.2 **Barn** (see 5.5 plates 1 - 4) – a small number of roosting opportunities were present within the fabric of the barn but are unlikely to support roosting bats due to the following:

- There are no gaps beneath the ridge tiles, and none are missing.
- A small number of gaps beneath the pan tiles although the majority are tight fitting following the re-roofing works circa 2010.
- The timber roof frame was tightfitting.
- A small number (less than 5) of gaps in the external mortar were inspected with an endoscope and no evidence of bats were observed. The majority of the gaps were either too shallow or thick with debris and cobwebs.
- A subsidence crack on the west elevation was inspected with an endoscope and no evidence of bats were observed.
- A gap adjacent to the timber lintel on the east elevation was too shallow to support roosting bats and was thick with debris and cobwebs.
- There are no gaps in the internal mortar suitable for roosting bats.
- Gaps above the internal wall plates are thick with cobwebs.
- The timber doors and timber window frames were tight fitting.
- There are no gaps in the roof structure to support roosting bats.
- There was no open doors/window access into the barn.
- Skylights ensure that the building is light.
- No evidence of bats was observed.
- The barn has been assessed as having a **NEGLIGIBLE SUITABILITY** to support bats.

5.2.3 **Pole Barn** (see 5.5 plate 5) - no roosting opportunities were present within the fabric of the pole barn due to the following:

- There are no gaps beneath the ridges that are suitable for roosting bats.
- The timber frame and corrugated tin sheets were tightfitting and unsuitable for roosting bats.
- No evidence of bats was observed.
- The pole barn has been assessed as having a **NEGLIGIBLE SUITABILITY** to support bats.



5.3 Based on the field survey and the criteria in table 4.1 (Bat Surveys for Professional Ecologists – 3<sup>rd</sup> Edition, p35. Bat Conservation Trust, 2016), the Application Site and studied barns have the following suitability for bats:

	Negligible	Low	Moderate	High
Application Site habitats (<2km)		X		
Barn	X			
Pole Barn	X			

**Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.**

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions <sup>a</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation <sup>b</sup> ).  A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. <sup>c</sup>	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.  Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.  Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.  High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.  Site is close to and connected to known roosts.

Source - Bat Surveys for Professional Ecologists – 3<sup>rd</sup> Edition, p35. Bat Conservation Trust, 2016.

## 5.4 Results of Activity Surveys

5.4.1 There is no current (with the previous 2 years) bat activity survey data available for this site.



5.5 Photographs of key features – January 2021

Plate 1 – barn, south gable and west elevation.



Plate 2 – barn, south gable and east elevation.



Plate 3 – barn, west elevation.



Plate 4 – barn, internal roof void.



Plate 5 – pole barn, south elevation and east gable.







Not to Scale

Drawing title:  
Layout plan of the  
Application Site.

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## 5.6 Summary of field surveys conducted in 2021

Date	Type of survey	Results
08/01/21	Habitat assessment	World Ecology concludes that the adjacent habitats could be used by small numbers of commuting and foraging bats. These habitats are not extensive and are similar to surrounding far yard and agricultural habitats and consequently, the Application Site and immediately adjacent habitats are not considered to be integral to the favourable conservation status of local bat populations. However, optimum bat foraging habitats are located in abundance within 500m of the farm.
	Visual Inspection	<i>Barn</i> There were no signs of roosting bats or bat activity observed during the endoscope survey and the barn has very few features to support roosting bats. Consequently, the barn has a NEGLIGIBLE SUITABILITY to support bats (see 5.3 plates 1 - 4).
		<i>Pole Barn</i> There were no signs of roosting bats or bat activity and the building has no features to support roosting bats. Consequently, the building has a NEGLIGIBLE SUITABILITY to support bats (see 5.3 plate 5).
08/01/21	Hibernation	No hibernating bats were observed during the endoscope inspection.

## 5.7 Interpretation and Evaluation of Survey Results

### 5.7.1 Presence/absence

5.7.1.1 The information collected to date is based on the findings of one visit to the site in January 2021. No bats or signs of bat activity were observed during the field survey.

5.7.1.2 Currently, from the data collected during one visit, the likelihood that bats are present within the barn and pole barn is negligible. This is supported by the fact that the barn is in relatively good condition, it has been re-roofed, and no evidence of roosting bats were observed during the detailed endoscope survey; no roosting opportunities for bats were observed in the pole barn. The daytime assessment detected no signs of bat usage or activity and consequently, the impact to bats from the conversion of the barn and demolition of the pole barn is considered to be **negligible**.

### 5.7.2 Site Status Assessment

5.7.1 The assessment is based on one daytime survey conducted in January. During this time of year bats are usually in hibernation, therefore, bats are inactive. Natural England and the Bat Conservation Trust state that the optimum bat activity survey season is early May to late August although bat activity surveys during late April, September and early October may also provide useful survey data in addition to optimum season bat activity surveys. Consequently, it is not always possible to fully determine whether bats are actually roosting in a building. However, due to the presence of a small number of suitable features likely to support bats and the absence of any bat evidence during the endoscope survey, the studied barns have been assessed as having a NEGLIGIBLE SUITABILITY for bats.

### 5.7.3 Constraints

5.7.3.1 There are no survey constraints.



## 6.0 IMPACT ASSESSMENT – in the absence of mitigation

- 6.1 It is not always possible to predict the full pre-, mid-development and long-term impacts on bat populations based on a single daytime survey conducted in January. Based on the current information, the studied barn and pole barn do not support a bat roost. However, bats are by nature highly mobile and secretive mammals and there is always a possibility that bats may turn up at a site at any time. Therefore, taking into consideration all the information collected to date, it has been determined that the proposed development would pose none/negligible impacts to local bat populations.

## 7.0 MITIGATION & COMPENSATION

### 7.1 Legal Protection

- 7.1.1 Legal obligations towards bats are generally concerned with roost protection. All developments, known to contain bat roosts, require a development licence from Natural England. Under the Wildlife and Countryside Act (1981) and the Habitats and Species Regulations 2017 (as amended), it is an offence for anyone without a licence to:

- Deliberately take , injure or kill a wild bat
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

- 7.1.2 Planning consent for a development does not provide a defence against prosecution under these acts.

### 7.1.3 **Bat roosts are protected throughout the year, whether bats are present or not.**

- 7.1.4 As no bat roosts or signs of bat activity were detected during the daytime inspection and the barns have negligible suitability to support roosting bats, building work can commence with adherence to the following Method Statement (see 7.2 below).

### 7.2 Method Statement

- 7.2.1 **This statement should be copied to contractors and all those involved with timber treatment and building works, whose work may affect bats and their roosts on site.**

#### 7.2.2 Timing

- 7.2.2.1 There will be no mandatory timing constraints if roosting bats are not found and the barns have negligible suitability to support roosting bats.

- 7.2.2.2 In the highly unlikely event that bats are discovered:

- Immediately stop the work that you are undertaking.
- Do not expose the bat or cause it to fly out of the roost on its own accord.

- Contact Wold Ecology on 01377 200242 or 07795 071504 for advice.
- Advise colleagues in the vicinity of your work why you have stopped and advise them to be aware of the potential for bats being disturbed, injured or killed.
- Immediately report the matter to your site manager/line manager who will inform relevant personnel.
- Grounded bats must be carefully placed in a lidded, ventilated box with a piece of clean cloth and a small shallow container with some water. The box must be kept in a safe and quiet location.
- Any underweight or injured bats must be taken into temporary care by an experienced bat carer and looked after until such time that the bat can be transferred to a suitable replacement roost at the same site, or weather conditions are suitable for release at the same site.

7.2.2.3 Bats will only be handled by a licensed bat ecologist, wearing gloves, who has received a rabies vaccination. The bat will be placed either into a holding box, with water provided, and re-released close to the farm at dusk, or placed into a bat box located on site.

7.2.2.4 Injured bats will be taken into care (as directed by the Bat Workers Manual, section 7.3, pages 64 – 66: 3<sup>rd</sup> edition 2004) and fed and cared for until such time when conditions are suitable (night time temperature are >6°C) for them to be released at dusk in the mitigation area.

### 7.3 Bat boxes

7.3.1 Specially designed bat boxes can be located on site. Schwegler Bat Boxes are recommended and well tested boxes. The following bat boxes provide additional roost habitats and are available from Wold Ecology:

- The **1FQ** is an attractive box designed specifically to be fitted on the external wall of a house, barn, or other building. Equally appealing to bats as a roost or a nursery, it features a special porous coating to help maintain the ideal temperature inside along with a rough sawn front panel to enable the bats to land securely.

7.3.2 The majority of these boxes are self-cleaning as they are designed so that the droppings fall out of the entrance. This reduces the possibility of smell during the summer months. For more information on designs and installation of bat boxes see: [www.schwegler-natur.de](http://www.schwegler-natur.de) and [www.bct.org.uk](http://www.bct.org.uk).

7.3.3 Wold Ecology recommends that at least 1 bat box is sited on the barn. Bat boxes should be erected on south, east or west elevations; 3-5 metres above ground level or close to roof lines.

### 7.4 Lighting

7.4.1 Lighting has a detrimental effect on bat activity; many bats will actually avoid areas that are well lit. Lighting can cause habitat fragmentation by preventing bats from commuting between roosts and foraging grounds (A.J Mitchell-Jones 2004).



#### 7.4.2

It is recommended that a lighting consultant is employed to design a lighting plan based on the following principles:

- Luminaire and light spill accessories - Lighting should be directed to where it is needed, and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only.
- If applicable, the height of lighting columns in general should be as short as is possible as light at a low level reduces the ecological impact. However, there are cases where a taller column will enable light to be directed downwards at a more acute angle and thereby reduce horizontal spill. For pedestrian lighting, this can take the form of low level lighting that is as directional as possible and below 1 lux at ground level.
- Aim for lighting column of 5m or less, hooded and cowled to prevent light spill, for main lighting columns.
- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used.
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.
- Light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding

#### 7.4.3

At this site, new lighting design will ensure lights will **not** be mounted where they will shine directly on to bat boxes or the surrounding hedgerows habitat used by foraging and commuting bats. A light intrusion lux level besides hedgerows along the southern boundary will be 1 lux or below.

#### 7.5

Timber treatment

##### 7.5.1

It is good practice, where bats may come into contact with roof timbers, to carry out timber treatment using Permethryn type chemicals on the Natural England list of approved safe chemicals. New pre-treated timbers i.e. tanalised timber will be allowed to dry thoroughly before use, if applicable. A list of Natural England approved paints and timber treatments is available at <https://www.gov.uk/guidance/bat-roosts-use-of-chemical-pest-control-products-and-timber-treatments-in-or-near-them>

## 8.0

## BIRDS

- 8.1 Birds are afforded various levels of protection and levels of conservation status on a species by species basis. The most significant general legislation for British birds lies within Part 1 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation, it is an offence to, kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, take or destroy an egg of any wild bird.
- 8.2 The daytime assessment identified whether the studied barns had any signs of residency and/or barn owl usage. Specifically, the visual survey involved:
- An assessment of the suitability of buildings or stone feature to enable access for breeding barn owls.
  - A thorough check for pellets, feathers or signs of old nest remains in the form of pellet debris and/or old broken egg shells.
- 8.3 The visual inspection also recorded any other visible active/disused nests and bird activity within the barns.
- 8.4 Field survey results
- 8.4.1 There was no evidence of barn owls *Tyto alba* roosting in the barns. No further surveys are recommended.
- 8.4.2 No birds' nests were observed in the barns.
- 8.5 Biodiversity Gains and Recommendation
- 8.5.1 All nests should remain undisturbed and intact until after the breeding bird season – mid February to early September. Any building work should be cleared outside of the bird nesting season (i.e. clearance should be undertaken between mid-September and early February inclusive) or be carefully checked by an ecologist to confirm no active nests are present - prior to removal during the summer period. If nesting birds are found during the watching brief, works will need to stop until the young have fledged.
- 8.5.2 In order to increase nesting opportunities for birds, it is recommended that Schwegler bird boxes are erected throughout the site. Local Authority guidance recommends that 25% of houses within a development should contain a bird box.
- 8.5.3 Bird boxes will target species of conservation concern. A summary of recommended bird boxes are listed below:
- | Name                           | Description        | Number |
|--------------------------------|--------------------|--------|
| Schwegler sparrow terrace #1SP | Brick building box | 2      |
- 8.5.4 Boxes should be placed so that the entrance does not face the prevailing wind, rain and strong sunlight. The sector from north to south east should be used, with south facing boxes positioned in more shaded areas.
- 8.5.5 Many species will use boxes at a wide variety of heights however to give the box protection in areas with a lot of human or mammalian predator activity they should



be placed approximately 3-4 metres above ground level. A clear flight path should be available to and from the nest box.

## 9.0 REFERENCES

Bat Conservation Trust. 'Bats in Churches' leaflet.

Bat Conservation Trust. 'Bat Surveys for Professional Ecologists, 3<sup>rd</sup> Edition (2016).

Bat Conservation Trust. 'Biodiversity for Low and Zero Carbon Buildings: A Technical Guide to New Build'. Dr Carol Williams, 2010.

Mitchell-Jones A.J. (2004). 'Bat Mitigation Guidelines'. English Nature, Peterborough.

English Nature (2003). 'Focus on Bats'.

English Nature (1993) 'Bats in Roofs; A Guide for Surveyors'.

English Nature Northumbria Team (2004) 'Bat surveys for development proposals in North-East England'. English Nature.

Habitat Management for Bats. (2001). A guide for land managers, land owners and their advisors. JNCC.

Horacek, I. Notes on the ecology of bats of the genus *Plecotus*. Vestník Československé Společnosti Zoologické.

Mitchell-Jones, A.J. & McLeish, A.P. (1999) 'The bat workers' manual' 2<sup>nd</sup> edition. Joint Nature Conservation Committee.

Mitchell-Jones, A.J. (2004) 'Bat mitigation guidelines.' English Nature, Peterborough.

The Bat Conservation Trust [www.bats.org.uk](http://www.bats.org.uk) Much additional information is available on bats at this website.

Thomas, D.W. 1995. The physiological ecology of hibernation in vespertilionid bats. *Symposia of the Zoological Society of London* 67: 233–244.

Town and Country Planning Association 'Biodiversity Positive: Eco-towns biodiversity positive'. 2011. <http://www.tcpa.org.uk/pages/biodiversity.html>

UK Mammals: Species Status and Population Trends. JNCC / Tracking Mammals Partnership. 2005

[www.bats.org.uk](http://www.bats.org.uk)

<https://www.gov.uk/government/collections/bat-licences>

## 10.0 APPENDICES

### 10.1 Background to Bats - Bat Biology.

- 10.1.1 Bats roost in a variety of places such as caves, mines, trees, and buildings. Woodlands, pasture, ponds and slow flowing rivers or canals provide suitable feeding areas for bats as they support an abundance of suitable insect forage. Bats tend to feed during the first two to three hours after sunset and again before dawn, when insect activity is at its most intense (JNCC 2004).
- 10.1.2 Bat activity over the course of a year reflects the seasonal climate and the availability of food as follows (The Bat Conservation Trust, undated):  
**January - March** - insect prey is scarce, and bats will hibernate alone or in small groups.  
**April - May** - insects are more plentiful and bats will become active. They may become torpid (cool and inactive) in bad weather. Females will start to form groups and will roost in several sites.  
**June - July** - females gather in maternity roosts and give birth to young, which are suckled for several weeks. Males roost alone nearby.  
**August - September** – mothers leave the roost before the young. Bats mate and build up fat for the winter.  
**October - December** – Bats search for potential hibernacula. They become torpid for longer periods and then hibernate.
- 10.1.3 Bats do not stay in the same roost throughout the year. They have different requirements of roosts at different times of the year. During late April/May the bats leave their winter roosts and the females come together to form ‘nursery roosts’, these usually consist of pregnant females along with a few non-breeding and immature females. At this time, the males roost either singly or in small numbers. The single offspring is born during late June early July and can fly within 3-5 weeks.
- 10.1.4 Typical roost sites are cracks and crevices in buildings and other structures but more typically under hanging tiles, slates, soffits and cavity walls of fairly modern buildings or holes and splits in trees.
- 10.1.5 The conditions needed by bats for hibernation require the maintenance of a relatively stable low temperature (2 – 6°). Suitable sites include; old trees, caves, cellars, tunnels, and icehouses.
- 10.1.6 Whilst the summer roosts consist of single species (although 2 – 3 species can be found within one large structure but occupying separate roost sites), winter sites often consist of 4 – 6 different species of bat, although there is often niche separation.
- 10.1.7 Bats have a complex social structure based on ‘meta populations’ and also utilise other transitional or intermediate roost sites. The several different types of roost, which bats occupy throughout the year, are as follows:
- **Day roost:** a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
  - **Night roost:** a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.



- **Feeding roost:** a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
- **Transitional/occasional roost:** used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
- **Swarming site:** where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites
- **Mating sites:** sites where mating takes place from later summer and can continue through winter.
- **Maternity roost:** where female bats give birth and raise their young to independence.
- **Hibernation roost:** where bats may be found individually or together during winter. They have a constant cool temperature and high humidity. These have to be cold and free from any temperature fluctuation with high humidity. The coldness enables bats to lower their body temperature and become torpid. This saves a lot of energy, enabling them to survive on the fat stores within their bodies that they have built up throughout the summer.
- **Satellite roost:** an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

10.1.8 The main threats to bats include:

- Habitat loss (e.g. deforestation)
- Loss of feeding areas as a result of modern forestry and farming practices.
- Use of toxic agrochemicals and remedial timber treatment chemicals.
- Disturbance and damage to bat roosts.

10.1.9 Bats have been in decline both nationally and internationally during the latter part of the 20<sup>th</sup> Century. Bats require a variety of specific habitats in order to meet the basic needs of feeding, breeding, and hibernating and are therefore extremely vulnerable to change such as the loss of flight lines through the removal of hedgerows. It is thought that even the two most common and widespread bats, the common pipistrelle and the soprano pipistrelle, have declined by an estimated 70% (1978-1993 figures). There are a number of bat species, which are now considered seriously threatened with one species, the greater mouse-eared bat being classed as extinct as it is no longer breeding in the U.K.

10.1.10 All European bats are listed in Annex IV of the EC Directive 92/94/EEC ‘The Conservation of Natural Habitats and of Wild Fauna and Flora’ as needing “strict protection”. This is translated into British Law under the Habitats and Species Regulations 2017 (as amended). British bats are included under Schedule 5 of the Wildlife & Countryside Act 1981. They can therefore be described as a ‘fully protected’ or ‘protected’ species.

10.1.11 A summary of the legal protection afforded to bats under both European and British law is provided by the Bat Conservation Trust (BCT, 2010): ‘All European bat species and their roosts are listed in Annex IV of the EC Directive 92/94/EEC ‘The Conservation of Natural Habitats and of Wild Fauna and Flora’ as needing “strict protection”. This is implemented in Britain under the Conservation of Habitats and Species Regulations 2017 (as amended) which has updated the Conservation (Natural Habitats &c.) Regulations (as amended). In summary, in the UK, it is an offence to:



- Deliberately capture, injure, or kill a bat;
- Deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young, hibernate or migrate or significantly affect the local distribution or abundance of the species;
- Damage or destroy a roost (this is an absolute offence); and
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.’

10.1.12 The species is also listed in Appendix II of the Bonn Convention (and its Agreement on the Conservation of Bats in Europe) and Appendix II of the Bern Convention (and Recommendation 36 on the Conservation of Underground Habitats). Although these are recommendations and not statutory instruments.

10.1.13 Natural England is the Government body responsible for nature conservation. Local planning authorities must consult them before granting planning permission for any work that would be likely to result in harm to the species or its habitat. Natural England issue “survey” licenses for survey work that requires the disturbance or capture of a species for scientific purposes. They also issue “conservation” licenses that are required for actions that are intended to improve the natural habitat of a European protected species or to halt the natural degradation of its habitat.

10.1.14 ‘Development’ licences are issued by Natural England for any actions that may compromise the protection of a European protected species, including bats, under the Conservation of Habitats and Species Regulations 2017 (as amended). This includes all developments and engineering schemes, regardless of whether or not they require planning permission.

10.1.15 The UK Biodiversity Action Plan states that although the pipistrelle is one of the most abundant and widespread bat species in the UK, it is still thought to have undergone a significant decline in the latter part of this century. The main factors cited for causing loss and decline include:

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows, and other suitable prey habitats.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

**10.2 Significance of bat roosts, appraising the nature conservation value;**

10.2.1 The significance of bat roosts should be appraised against the following table. Where the extent of the bat roost is unclear a precautionary approach should be taken in evaluating the significance of the roost and the highest potential category should be selected.

Table 9.2.1 Appraisal of significance of bat roosts.

Scale	Summary	Examples
International	Any significant roosting sites for European Annex 2 species	Barbastelle bat roosts are only known applicable feature in East Anglia.

National	Any roosts qualifying as SSSI under the EN criteria.	Details of criteria are given in 9.1.2 Site Selection Guidelines for Biological SSSI's.
Regional	Any significant bat roosts and features, equivalent in interest to qualifying a site as a Country Wildlife Site.	Breeding and hibernation roosts of most species.
Local	All other sites supporting feeding bats as Wildlife and Countryside Act protected species.	Bats foraging within a structure, night roosts and minor transition roosts.

10.3 Summary of conservation significance of roost types (Bat Mitigation Guidelines, 2004).

Roost type	Development effect	Scale of impact		
		Low	Medium	High
Maternity	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside breeding season	✓		
	Post-development interference			✓
Major hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference			✓
Minor hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Modified management		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference		✓	
	Temporary destruction, then reinstatement	✓		
Mating	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
Night roost	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		

**NB** This is a general guide only and does not take into account species differences. Medium impacts, in particular, depend on the care with which any mitigation is designed and implemented and could range between high and low.