ADDITIONAL AMENDMENTS

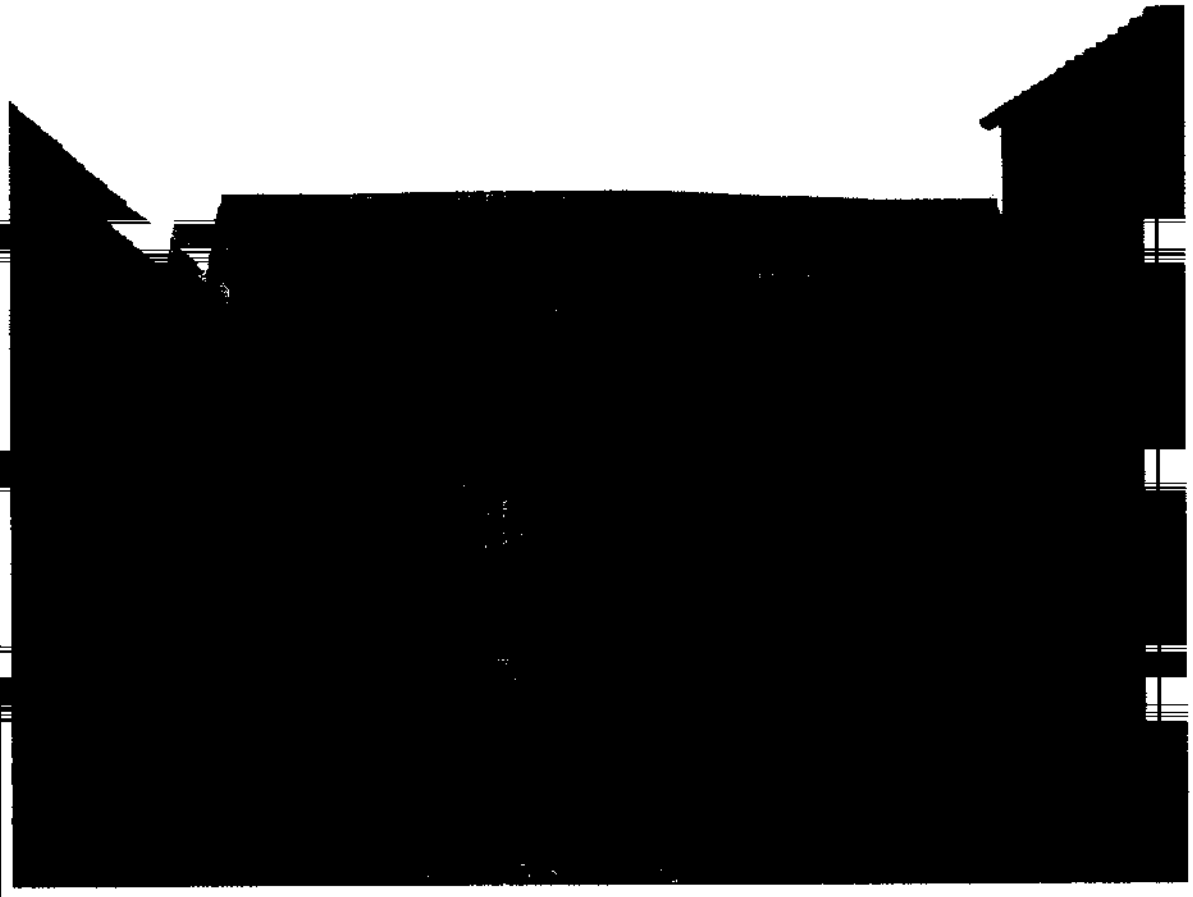
- [ ] Amended layout of buildings/outside areas
- [x] Additional background information — BAT SURVEY
- [ ] Amended design
- [ ] Revised access arrangements
- [ ] Change of description of proposed development - as indicated on the previous page
- [ ] Change in site boundaries
- [ ] Other (as specified below)

John Drewett
Ecological Consultant

Redmire Farm, Tranmire, Whitby, YO21 2BW

Bat survey report

9 November 2007



John Drewett BSc MIEEM – Ecological Consultant
3 Victoria Row, Eppleby, Richmond, North Yorkshire, DL11 7BE
Tel/Fax : 01325 718133 Email johndrewett@btinternet.com

Contents

Record of report and revisions

Date	Details	Issued by
9 November 2007	Original report	John Drewett

1 Summary

1.1.1 A bat survey of outbuildings at Redmire Farm, Tranmire, North Yorkshire was commissioned by Vandome Interiors on behalf of the owners Mr & Mrs Thompson.

1.1.2 The survey was carried out on 8 November 2007.

1.1.3 A Brown long-eared bat feeding perch was located in one part of the building and two further bat droppings were located in another part of the building.

1.1.4 The site also has some potential for roosting bats between tiles and underfelt and limited potential for hibernating bats in external wall crevices.

1.1.5 Even if bats do use the spaces detailed in 1.1.4 it should be possible to include provision in the project to enable this use to continue. However, it is necessary to carry out a bat activity survey in summer 2008 to confirm or deny such usage.

1.1.6 If work is judged likely to have a significant impact on bats, then as Habitats Regulation (EPS) licence will be required.

1.1.7 There is evidence of nesting birds using the building. All wild birds are protected by law throughout the UK when they are nesting. It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. This includes commonly seen birds, such as blackbirds and robins.

2 Introduction

2.1 Site description

Site name and address: Redmire Farm, Tranmire, Whitby, YO21 2JW

OS Grid Ref. NZ769106 Altitude 191m

Local Planning Authority: North York Moors National Park Authority

Features on site and adjacent to site

Feature	*On site*	*Adjacent*	*Comments*
Buildings (more or less continuous)	✓		House, stables, agricultural sheds and adjoined buildings on site
Trees with visible cavities		✓	Visible from site, but several hundred metres away
Other trees	✓	✓	Small trees on site and very small woodlands in vicinity
Rivers or streams bordered by trees		✓	Small stream 150m to north
Walls		✓	
Livestock	✓	✓	Horses on site. Sheep within 300m.
Improved grassland		✓	

2.1.1 The site is located at the narrow valley bottom in an elevated position. The buildings are partly sheltered from the sun by a bank immediately behind the farmhouse.

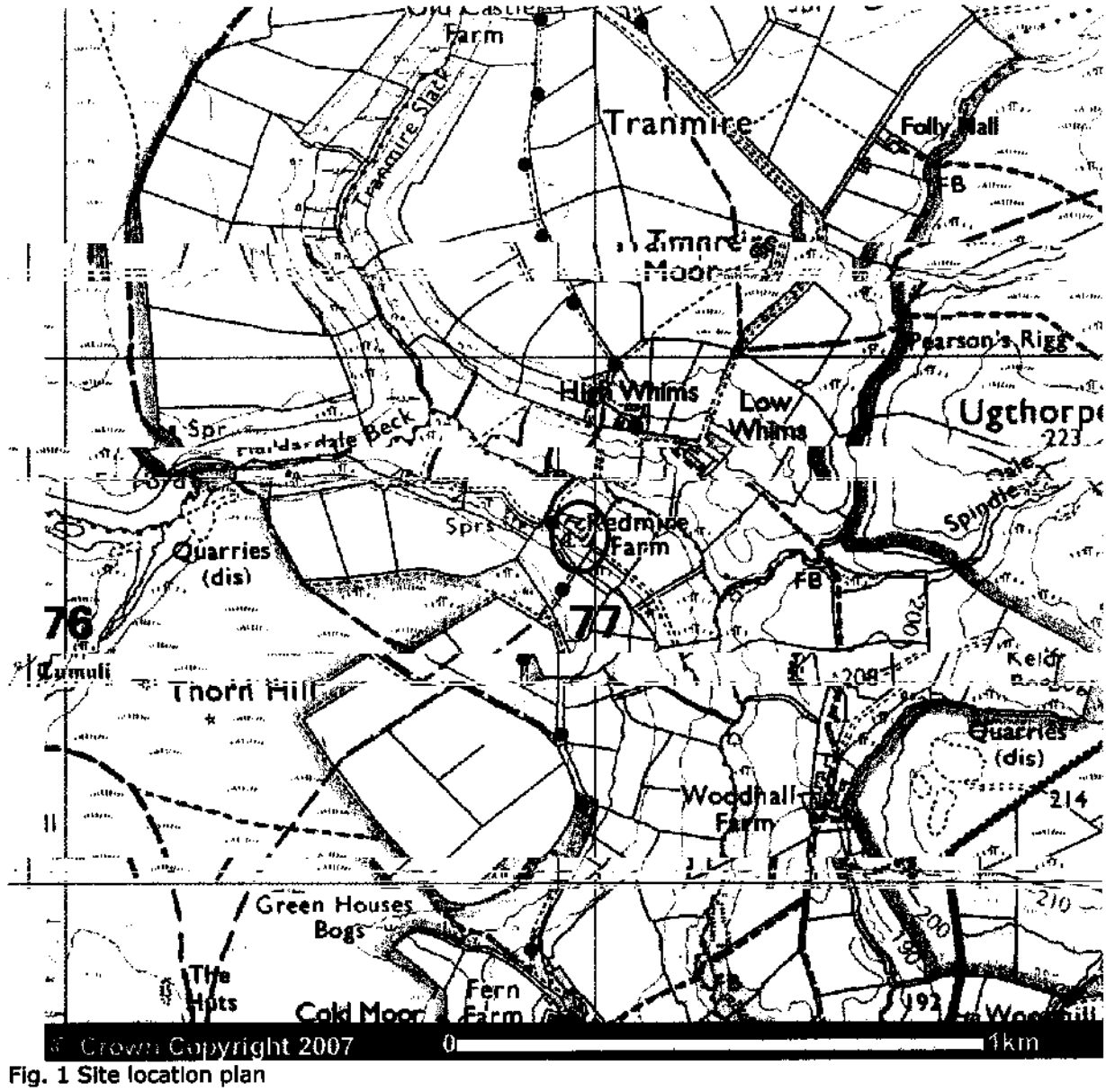


Fig. 1 Site location plan

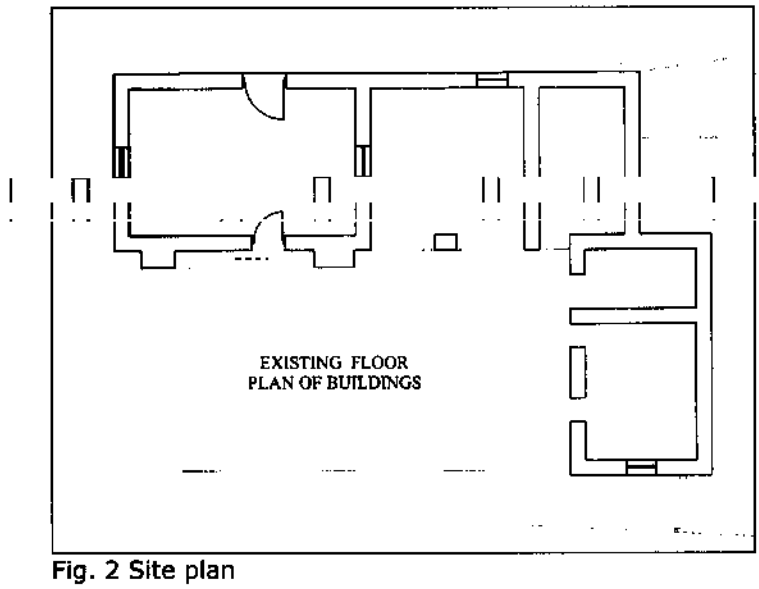


Fig. 2 Site plan

2.2 Proposed works

2.2.1 The proposal is for the conversion of stone barns to form two holiday apartments. It is the subject of planning application NYM/2007/0852/FL to North York Moors National Park Authority.

2.3 Aims of survey

2.3.1 The survey was carried out to establish the following:

- Likelihood of particular buildings, structures, trees or other features to support bats
- The presence of absence of bats e.g. in a particular building, structure or tree
- The number of bats present
- Specific features used within the survey area by roosting bats
- Bat behaviour that may be affected by the proposed activity or development in terms of emergence, foraging, commuting or mating

3 Methodology

3.1 Desk study

3.1.1 Information concerning designated sites was obtained from www.magic.gov.uk.

3.1.2 Information regarding bats previously recorded at the site or within 2km was obtained from North Yorkshire Bat Group.

3.2 Field survey

3.2.1 The following personnel took part in this survey:

Surveyor	**Natural England Licence No. or status**
John Drewett BSc. (Hons.), MIEEM	20070172 (Conservation & scientific)
Val Kirk	Field assistant and trainee

3.2.2 The following activities were carried out during this survey:

- An examination and assessment of the site and habitats present within 300m
- An examination of each building to record its main structural features and condition and to identify features that may be suitable for roosting bats
- The making of a photographic record of the site, its features and any evidence of bats to illustrate the findings in this report
- A detailed check of the interior and exterior of buildings to look for bat droppings; feeding remains such as moth & butterfly wings; live bats; dead bats; stains and marks on surfaces indicating regular use by bats

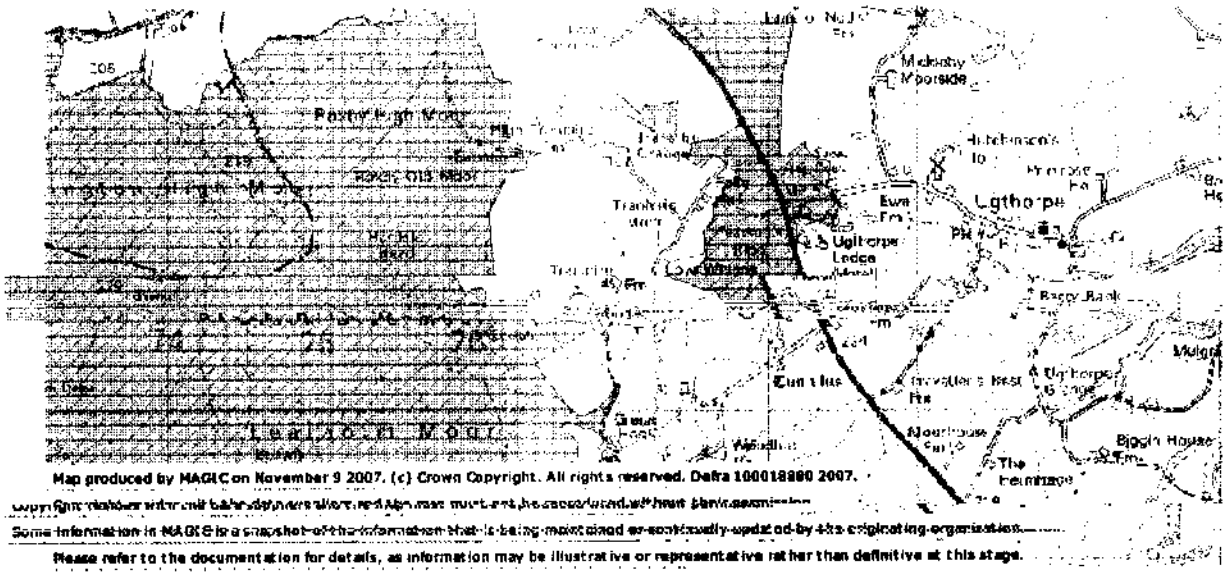
3.2.3 The following equipment was used in conducting this survey:

- Digital camera
- Powerful torch

4 Results

4.1 Desk study

4.1.1 The map below shows the location of sites designated for their conservation interest within the vicinity of the site. The areas marked green with horizontal orange lines is the North York Moors Site of Special Scientific Interest, Special Area of Conservation and Special Protection Area. The smaller green area approximately 1km north of the site is Tranmire Site of Special Scientific Interest. None of the sites were specifically designated for their bat interest.



4.1.2 The following records of bats previously recorded within 2km of the site were supplied by North Yorkshire Bat Group. As is usual with remote rural areas such as this, the records are likely to severely under-represent the bat fauna present in the area.

Species	Site	Grid ref.	Date	Comment
Unknown	Ugthorpe House, Ugthorpe	NZ7811	16 Sep 2004	Several bats in living areas

4.2 Field survey

4.2.1 Descriptions of each building are given below along with information about any evidence of bats found within and potential for roosting bats.

Building type	Wall	Roof	Evidence of bats	Bat roost potential	Comments
Single storey stone barns.	Solid stone walls. External pointing reasonable except east facing wall of E section and N gable end.	Pantiles lined with underfelt. A few gaps between tiles but ridge well pointed.	About 20 Brown long-eared droppings, butterfly & moth wings in most southerly room. Two bat droppings in most easterly room.	Potential for roosting bats between tiles and felt. Some potential for hibernating bats in wall crevices.	L-shaped range divided into 5 rooms.

4.2.2 There is extensive evidence of nesting Swallows in all parts of the building.

5 Assessment

5.1 Summary and evaluation of findings

5.1.1 The site is in a remote location at the end of an unclassified road in the North York Moors, approximately 7km inland from the North Sea. The building is relatively sheltered in a shallow valley, 1km from a stream. There are potential bat foraging areas along the stream and local woodland / shrub edges. All these factors make this a location of high bat roost potential.

5.1.2 The surveyed buildings are rather shaded by adjacent buildings and by a small hill to the south, somewhat reducing their attractiveness as bat roosting sites. However, the

roof areas are likely to receive some direct sun during the summer and the presence of underfelt does offer the opportunity for bats to roost between tiles and felt. There are few gaps into this area, other than between some slightly raised tiles.

5.1.3 Deep crevices in the external walls, especially at the north gable end, provide some potential for hibernating bats.

5.1.4 There is clear evidence that Brown long-eared bats have used the most southerly room as a feeding perch. The number of droppings is small, suggesting that this is probably not a regular or long-established feeding site.

5.2 Constraints on survey information

Constraint	Significance
Time of year	The survey was carried out in winter, so [illegible] surveys were not appropriate. This could result in [illegible] such as between tiles and roofing felt being overlooked.

5.3 Potential impacts in the absence of mitigation

	During works	Following completion
Designated sites	The site is located close to some major designated sites. However, these sites are not designated for their bats and the proposed development will not impact on the sites.	The site is located close to some major designated sites. However, these sites are not designated for their bats and the proposed development will not impact on the sites.
Bat roosts	The proposed works will cause the loss of occasional feeding perch used by Brown long-eared bats. There is the potential for roosts between tiles and felt to be disturbed if such roosts exist. Hibernacula could be lost through inappropriate pointing if these exist.	[illegible]
Individual bats	Even where surveys have not located bats, individual bats may be found during works. There is the risk of these being injured or killed.	None.
Nesting birds	Work during the breeding season (May to August) would cause disturbance to nesting Swallows.	The building would no longer be accessible to nesting birds.

5.4 Legislation and policy guidance

5.4.1 Bats receive protection under the Wildlife and Countryside Act, 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations, 1994 (as amended).

5.4.2 It is an offence to:-

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of any significant group of animals of that species to survive, breed, rear or nurture their young or likely to significantly affect the local distribution or abundance of the species, whether in a roost or not
- Damage or destroy the breeding or resting place (roost) of a bat
- Possess a bat (alive or dead), or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

5.4.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires states to develop national strategies and to undertake a range of actions aimed at

maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.

5.4.4 Individual Species Action Plans (SAPs) have been developed to address the causes of decline for those species that have been identified as priorities for UK conservation action. Country-level lists contain species considered of national importance in biodiversity strategies. The current list includes Bechstein's Bat, Greater Horseshoe Bat, Lesser Horseshoe Bat, Barbastelle, Noctule, Soprano Pipistrelle and Brown Long-eared bat. At a more local level there are also Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.

5.4.5 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, *"to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"*. It notes that *"conserving biodiversity includes restoring or enhancing a population or habitat"*.

5.4.6 Where it is proposed to carry out works which will have an adverse impact on bats or on a bat roost, a European Protected Species (EPS) licence must first be obtained from Natural England, even if no bats are expected to be present when the work is carried out.

5.4.7 An EPS licence application requires details of the proposed works, the bats which may be affected and the mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up on behalf of the client by a specialist ecological consultant. The consultant is likely to be required to check that work is proceeding in accordance with the method statement and to also carry out monitoring of the impact on bats for sometime after completion of the works.

5.4.8 When considering an application, the Natural England licensing section may consult with the local planning authority ecologist or conservation officer. This process may take a considerable length of time. Natural England presently states that it aims to make a decision on an application within 30 working days of receipt. There is no guarantee that a licence will be granted and no fast track process to obtaining a licence. Applications can only be made once planning permission has been granted (where appropriate).

5.4.9 EPS licences can only be issued if Natural England is satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

5.4.10 PPS9: Biodiversity and Geological Conservation is the relevant national planning statement in relation to protected species. It provides guidance on how the Government's policies on nature conservation should be implemented through the land use planning system. PPS9 states that "the aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that... adequate mitigation measures are put in place... If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.

5.4.11 All wild birds are protected by law throughout the UK when they are nesting. It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. This includes commonly seen birds, such as blackbirds and robins.

6 Recommendations and mitigation

6.1 Further survey

6.1.1 A summer bat activity survey should be undertaken to determine if small crevices are being used by roosting bats.

6.2 Mitigation measures

6.2.1 The following mitigation measures are indicative only at this stage. Detailed mitigation will be determined following the results of the summer survey.

Reason for mitigation	***Methods to follow***
To avoid impacting on roosting bats (if present) and nesting birds.	Carry out works to roof areas between October and April only.
To make provision for bats to roost in roof area.	Incorporate bat access tiles at the eaves to provide access to the area between tiles and underfelt (see fig. 3 below).
To provide for bats to hibernate in external walls.	Gaps should be left in the external north wall during pointing. The gaps should slope up slightly to shed water and have a height of 18mm (range 15-20mm) and be a minimum of 80mm wide. These are best achieved by inserting a batten in the wall prior to pointing and removing this once the mortar has set.
To avoid risks of poisoning bats through timber treatment.	In the event that timber treatment should be necessary only products based on permethrin or cypermethrin may be used. A careful search must be undertaken first to ensure that no bats are present. Treatment must not take place when bats are in the roof.
To minimise risk to individual bats that may be encountered during works.	The greatest risk of casual bat use is in early autumn when non-breeding bats, including males and juveniles, are using casual roosts. However, casual use cannot be ruled out at any time of the year. Work practice should be such that potential roost sites are exposed and examined for bats before they have the potential to be damaged. This will require roofing, guttering, beams, rafters and any other woodwork and fixtures to be removed by hand. Should bats be found during works then work in that part of the site must stop and further advice be sought via the consultant's natural England.
To provide new nesting sites for swallows.	Nesting ledges should be erected in adjacent stables buildings (see fig. 4 below).

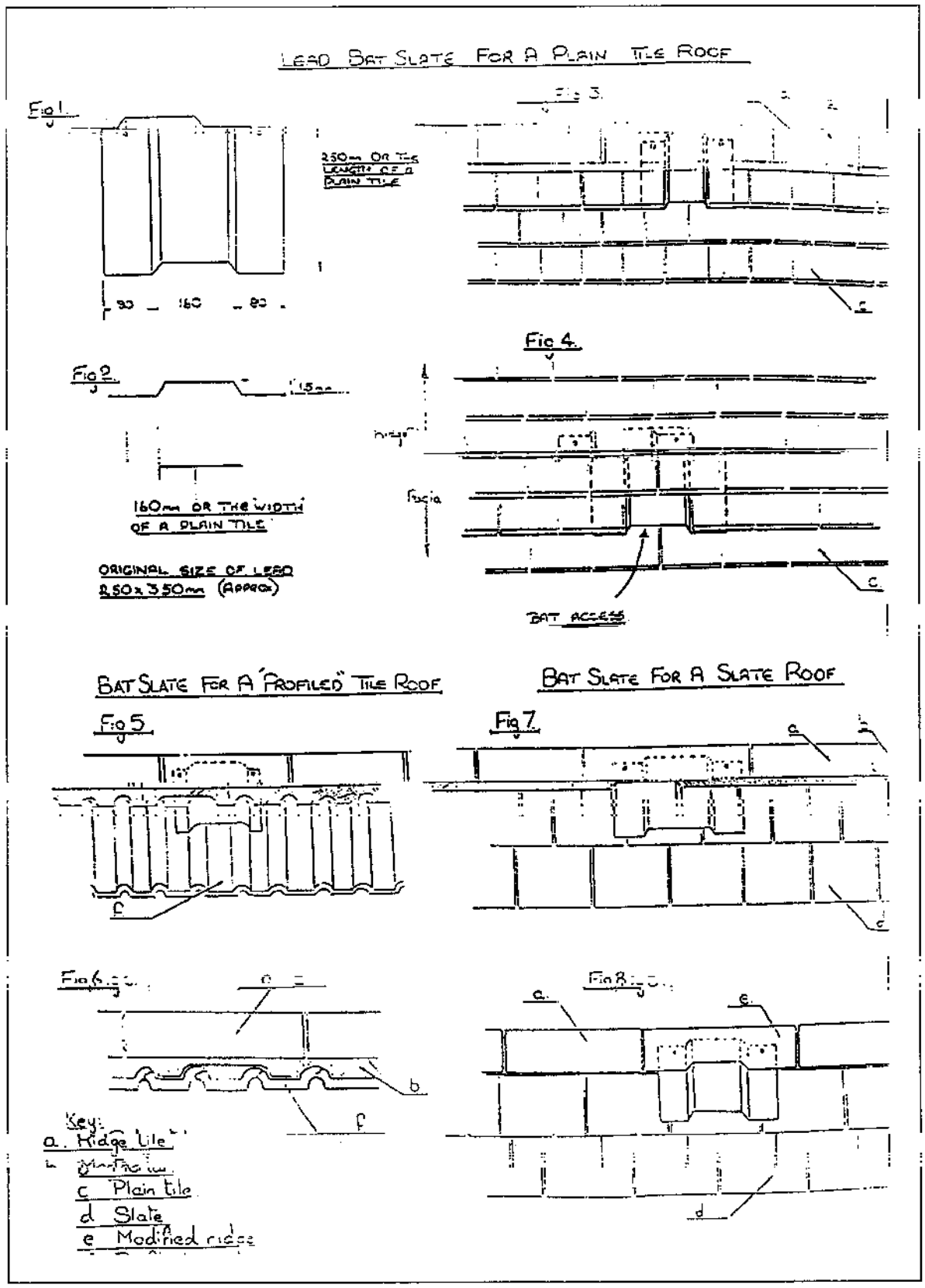
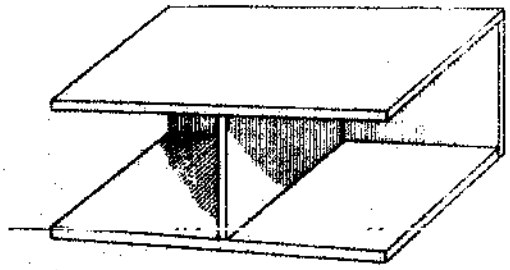


Fig. 3 Bat access tiles



Platform for Swallows.

Fig. 4 Nesting platform for Swallows

6.3 Requirement for Habitats Regulation (EPS) licence

6.3.1 If the proposed works are likely to have a significant impact on bats then a EPS licence is required from Natural England. This would be the case if works could not be timed to avoid disturbance, where roosts would be damaged or lost, etc. At this stage a licence is unlikely to be required but this advice may change following a summer survey.

7 Brief summary of bat biology

7.1.1 Bats are the only mammals to have developed powered flight. They are the second largest group of mammals in the world, with almost 1000 different species. In Britain 17 species occur, with the variety generally declining northwards. All British bats feed entirely on invertebrates.

7.1.2 British bats live in crevices in trees, caves, buildings, bridges, tunnels and other structures. They are long-lived animals which use roost sites to which they return in subsequent years. In summer females are generally colonial, each species gathering together in warm maternity roosts to give birth to their single young. Males often spend the summer singly or in small groups. Bats may use several different roosts over a summer, moving between sites depending on prevailing weather and other conditions.

7.1.3 In winter bats hibernate. During hibernation their body temperature falls close to the ambient temperature of their chosen hibernaculum and their heart rate and metabolism drop dramatically. In this state they use little energy, allowing them to survive until spring on their fat reserves. They are very sensitive to temperature changes which cause them to wake, a process which uses considerable energy. Repeated arousal in winter can threaten their survival. Many species hibernate in cool, stable underground sites such as caves and tunnels.

7.1.4 For more than 50 years bats have undergone a major decline in numbers. The reasons for these declines are many and varied, but include destruction of roost sites, a reduction in insect prey and direct and indirect poisoning from toxic chemicals. Even our commonest species, the Pipistrelle bats, have declined by more than 60% in recent years.

7.1.5 The survival of a colony of bats depends on there being a range of suitable summer roost sites, hibernation sites and feeding areas within a reasonable distance. For most species, these various sites must be linked by a more or less continuous network of linear features such as rivers, woodland edges and hedgerows, along which the bats commute from place to place (Limpens & Kapteyn 1991).

8 References

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- Billington G E & Norman G M (1997) *The Conservation of Bats in Bridges Project – A Report on the Survey and Conservation of Bat Roosts in Cumbria*, English Nature
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- Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom*, IEEM
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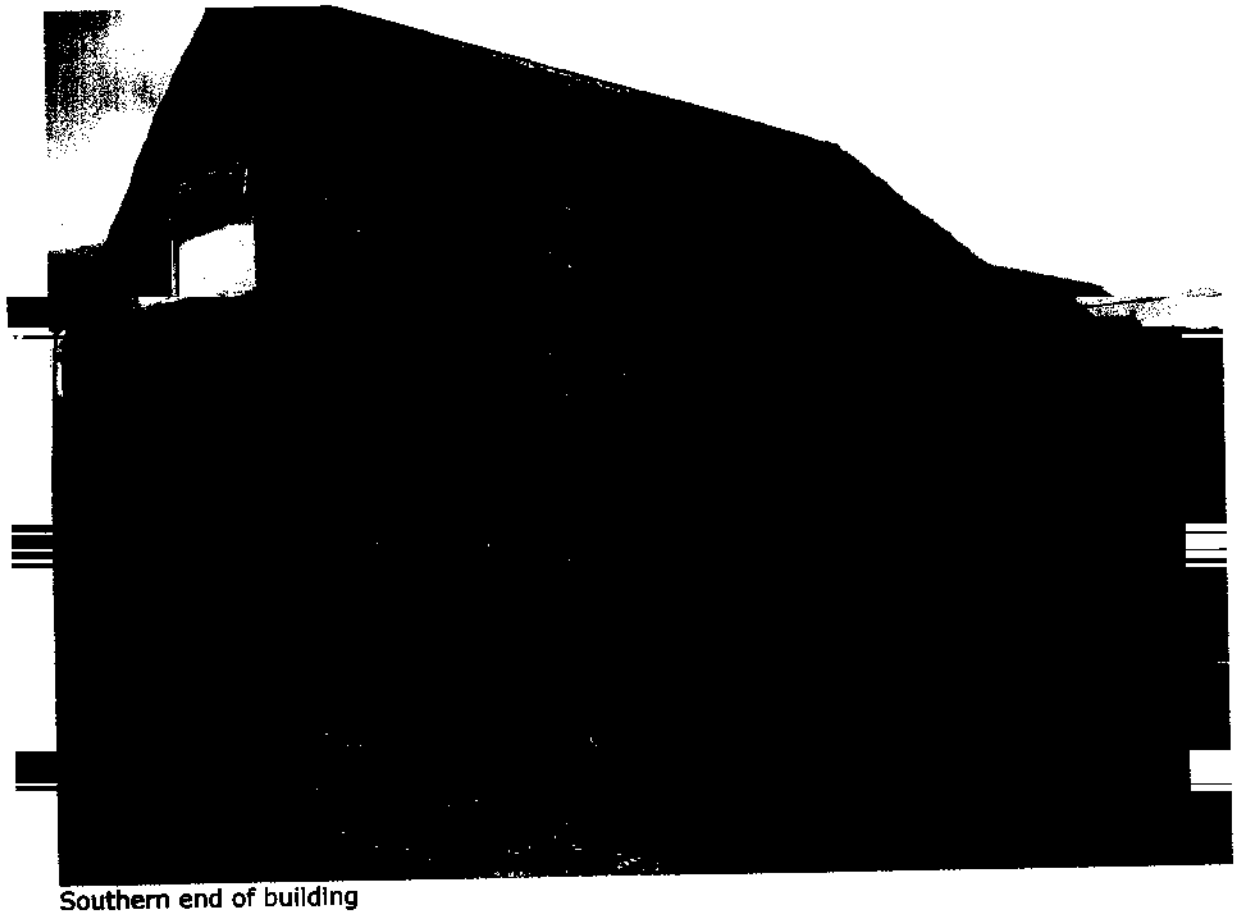
- Mitchell-Jones A J (2004) *Bat mitigation guidelines*, English Nature.
- Mitchell-Jones A J & McLeish A P (2004) *Bat Workers Manual*, JNCC

9 Photographs



Southern end of building

Bat droppings under feeding perch

10 Bat record summary sheet

The following bats were recorded during this survey. In order to further bat conservation it is important that all records of bats are passed to the relevant local biological records centre. This helps build up a picture of which bats occur in an area.

Unless agreed otherwise a copy of this page only will be passed to the compiler of the local bat record database.

John Drewett BSc, MIEEM
Ecological Consultant
3 Victoria Row
Eppleby
Richmond
North Yorkshire
DL11 7BE

Tel. 01325 718133
Mobile 07971 893638
johndrewett@btinternet.com

Site name: **Redmire Farm, Tranmire, Whitby, YO21 2BW**

OS Grid Ref. NZ769106

Date	Species	Number	Notes
09.11.2007	Brown long-eared		A few droppings, moth & butterfly wings. A feeding perch.