

KJ Ecology Ltd

Presence/ Absence Bat Survey
for
Grange Farm, Roxby.

July 2022

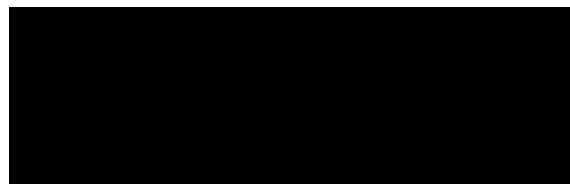
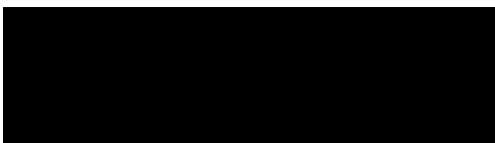


Client :

Kate Kelly,
Kelly & MacPherson Architects,
Unit 1, Caistor Multi-Use Centre,
19, South Street,
Caistor,
Lincolnshire,
LN7 6UB.

Prepared by :

Kevin Johnson BSc PgD PGCE MCIEEM,
KJ Ecology Ltd,
17, The Meadow,
Caistor,
Lincs,
LN7 6XD.



Contents

1	Introduction	1
1.1	Terms of Instruction	1
1.2	Site Location	1
1.3	Report Limitations	1
1.4	Background to KJ Ecology Ltd	1
2	Methodology.....	2
2.1	Presence / Absence Bat Survey.....	2
2.2	Survey Constraints	2
3	Survey Results	2
3.1	Presence / Absence Bat Survey.....	2
4	Evaluation and Recommendations.....	2
4.1	Evaluation	2
4.2	Recommendations	3
5	Legislation and Policy Guidance	4
5.1	Protected Species.....	4
5.1.1	European Protected Species	4
6	References	5

Appendices

Appendix 1: Maps.....	6
Map 1: Location map of Grange Farm, Roxby	7
Map 2: Location of bat surveyors around Grange Farm, Roxby.....	8
Map 3: Approximate bat flight lines around Grange Farm, Roxby on the 14 th July 2022.....	9
Map 4: Approximate bat flight lines around Grange Farm, Roxby on the 15 th July 2022.....	10
Map 5: Approximate bat flight lines around Grange Farm, Roxby on the 18 th July 2022.....	11
Appendix 2: Bat Survey Results	12
Table 1: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 14 th July 2022	13
Table 2: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 15 th July 2022	15
Table 3: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 18 th July 2022	16

1 Introduction

1.1 Terms of Instruction

A Preliminary Ecological Appraisal was carried out by Kevin Johnson of KJ Ecology Ltd on the 14th July 2022 (see associated document) and found that the buildings had low bat potential for bats, so required one Presence/ Absence bat survey between May and September. To satisfy this requirement Kate Kelly of Kelly and MacPherson Architects on behalf of Tori Heaton of DDM Agriculture (representing R. Elwes Fund, Elwes Children's 1989 Settlement Trust) commissioned Kevin Johnson of KJ Ecology Ltd on the 27th June 2022 to carry out a Presence/ Absence Bat Survey. A Presence/ Absence Bat Survey would establish whether or not the buildings at Grange Farm, Roxby are being used by bats.

1.2 Site Location

The proposed development site is East of the village of Roxby in a rural setting on North Street (Grid Ref SE 9275 1728), as shown in Map 1 (Appendix 1). The proposed development is 880m South of Winterton, 4.7kms North-east of Scunthorpe, 11.5kms North-west of Brigg and 10.3kms West-south-west of Barton upon Humber.

1.3 Report Limitations

This report is for the sole use of the client and its' reproduction or use by anyone else is forbidden unless written consent is given by the author.

The ecological data in this report is only valid for 18 months from the last survey date of 18th July 2022, as wildlife, especially Protected Species move about and natural conditions can change over time.

1.4 Background to KJ Ecology Ltd

On the 27th June 2022 KJ Ecology Ltd was appointed to carry out a Presence/ Absence Bat Survey on buildings at Grange Farm, Roxby. KJ Ecology Ltd is an independent Ecological Consultancy run by Kevin Johnson BSc Pgd PGCE MCIEEM (Member of the Chartered Institute of Ecology and Environmental Management) and has several years of experience in environmental consultancy work. This work has ranged from working on the rail, roads, airports, house building projects, barn conversions and pipeline work. Kevin Johnson was initially an Ecology and Environmental Lecturer at various colleges and taught students how to carryout surveys and about the environment. Kevin Johnson then went on to work for a number of ecological consultancies such as Penny Anderson Associates, which is one of the original environmental consultancy companies and is well respected.

2 Methodology

2.1 Presence / Absence Bat Survey

Due to the number of buildings on site and the number of surveyors available the surveys were carried out over three nights. A Presence/ Absence Bat Survey was carried out dusk on the 14th, 15th and 18th July 2022 to Bat Conservation Trust - Good Practice Professional Guidelines 2016, with the surveyors located around the buildings (Map 2, Appendix 1) so that the building was silhouetted against the lighter night sky. Sunset on the 14th July was 21:26, 21:25 on the 15th July and 21:21 on the 18th July. Each survey started 15 minutes before sunset and the survey was completed one and half hours after sunset. All surveys would allow any bats to be recorded (including flight path) if a roost was present within the building or if the bats were using the building.

The surveyors included Kevin Johnson (2018-34450-SCI-SCI) of KJ Ecology Ltd who used an Anabat Walkabout, Rod Strawson (2015-11495-CLS-CLS and 2015-11496-CLS-CLS) of Ecology and Forestry Limited who used an Echo Meter Touch Pro and two field assistants.

2.2 Survey Constraints

When the Presence/ Absence Bat Surveys were carried out on the 14th, 15th and 18th July 2022, there were no constraints.

3 Survey Results

3.1 Presence/ Absence Bat Survey

The Presence / Absence Bat Survey carried out on the 14th, 15th and 18th July 2022 at Grange Farm, Roxby revealed that no bats were utilising the buildings as a roost. The surveys did reveal that there was plenty of bat activity around the buildings, especially around the crew yard and trees along the tracks. There were at least five species of bat feeding in the area with Common Pipistrelle (*Pipistrellus pipistrellus*) being the most dominant species recorded. The results of the survey are shown in Appendix 2 and the approximate bat flight lines are shown in Maps 3 to 5, Appendix 1.

4 Evaluation and Recommendations

4.1 Evaluation

The original Preliminary Ecological Appraisal found that the buildings at Grange Farm, Roxby had low bat potential due to the fact there is missing mortar in the ridge tiles/ walls, missing and slipped roof tiles and some of the roofs had roof membranes or lathes. The conditions for the Presence/ Absence Bat Surveys was a Moderate West-north-westerly breeze on the 14th and 15th July which would have determined where the bats foraged. It was noted that a Noctule (*Nyctalus noctula*) bat was struggling against the wind on the 14th July. The Noctule was trying to fly one way and was being taken

another way by the wind with the result that the Noctule was flying North but was actually going North-easterly. The temperatures were good being in the late teens on the 14th and 15th and there was plenty of bat activity. The 18th July had perfect conditions for bats with a light air and a starting temperature of 31C.

There was plenty of bat activity on all three nights with Common Pipistrelle being the main bat recorded. The bats were noted foraging in the crew yard, around the trees and apex of Building 1, along the road to the South of the buildings but this may have been wind induced as it is sheltered here, the trees along the Western boundary and commuting along the track to the South of Buildings 8 and 9. Bats were also recorded foraging around the garden to the East of the site and Noctule bat(s) were recorded to the West of the site. There is plenty of grassland to the West of the site which is grazed by livestock, that would be suitable for Noctule bats to forage. It is deemed by the author that the recordings over the three nights is representative of bat activity around Grange Farm, Roxby.

As bats are a transient species and could use the buildings in the future, then when the roof is removed, a suitably qualified ecologist needs to be present for the stripping of the roof tiles in case a bat is present. If a bat is found then works will cease and the appropriate authorities contacted. The walls of Buildings 1 and 2 are suitable for Winter hibernating bats, so if the works start in the Winter period an inspection of the missing mortar areas will be required. This is because all bats and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended).

4.2 Recommendations

KJ Ecology Ltd has no objections to the proposed conversion of a series model farm buildings and a modern agricultural building into dwellings at Grange Farm, Roxby, as long as the following recommendations are followed:

1. If the roof tiles are to be removed, then they need to be done under the supervision of a suitably qualified ecologist. This is because all bats and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended);
2. If the works are to start in the Winter period, then an inspection of all the stone work with missing mortar will be required in case bats are hibernating in them. This is because all bats and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended);
3. As there are bats in the area, then some bat features need to be incorporated or added to the building such as bat boxes.

5 Legislation and Policy Guidance

In the 1960s and 1970s concerns were raised about the loss of wildlife habitats and species. This led to The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Berne Convention) which came into force in 1982. The aim of this Convention is to conserve wild flora and fauna and their natural habitats; Promote cooperation between countries in their conservation efforts and, give particular emphasis to endangered and vulnerable species including migratory species.

In the UK this Convention was implemented by the creation of the Wildlife and Countryside Act 1981 (as amended). This Act was further strengthened by the Countryside and Rights Of Way Act 2000.

The UK has signed up to the EEC Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna 1992 (Habitats Directive). The aim of the Habitats Directive is to contribute towards ensuring bio-diversity by means of the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States. The UK transposed the Habitats Directive into The Conservation (Natural Habitats, &c.) Regulations 1994. To consolidate all the various amendments made to this Act, The Conservation of Habitats and Species Regulations 2017 has been introduced.

The UK has also signed up to The Convention on the Conservation of Migratory species of Wild Animals 1979 (The Bonn Convention) which came into force in 1983 and so is therefore party to various agreements.

5.1 Protected Species

5.1.1 European Protected Species

Bats are classed as European Protected Species. All European Protected Species are protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and are also protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2012. They are listed under Appendix III of the Bern Convention and Annex IV of the EC Habitats Directive. These species also have their habitats listed under Appendix II of The Bonn Convention and therefore the UK has an obligation to protect their habitat, including links to important feeding areas.

In relation to a development these laws and regulations make it illegal for a person to:

- Intentionally or recklessly kill, injure or take a European Protected Species;
- Intentionally or recklessly -

- Damage or destroy any structure or place which any European Protected Species uses for shelter or protection;
- Disturbs any such European Protected Species while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any such European Protected Species uses for shelter or protection;
- Deliberately or recklessly disturbs wild animals of any species in such a way as to be likely significantly to affect :
 - The ability of any significant group of animals to survive, breed, or rear or nurture their young; or
 - The local distribution or abundance of that species;
- Possess or transport European Protected Species or any part of a them, unless acquired legally;
- Sell (or offer for sale) or exchange European Protected Species, or parts of European Protected Species.

This legislation applies, regardless of the life stage (including eggs).

A European Protected Species Licence is required to carry out any activity that would otherwise involve committing an offence.

6 References

Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines – 3rd Edition, London, BCT

Convention on the Conservation of European Wildlife and Natural Habitats, Bern, 19.IX.1979, Brussels, EC

Convention on the Conservation of Migratory Species of Wild Animals, UNEP/CMS, Bonn

Countryside Rights of Way Act 2000 (c.37) London: HMSO

Ordnance Survey (2022) OSmap, [Online] Ordnance Survey. Available at: <https://getamap.ordnancesurvey.co.uk> [accessed 30th July 2022]

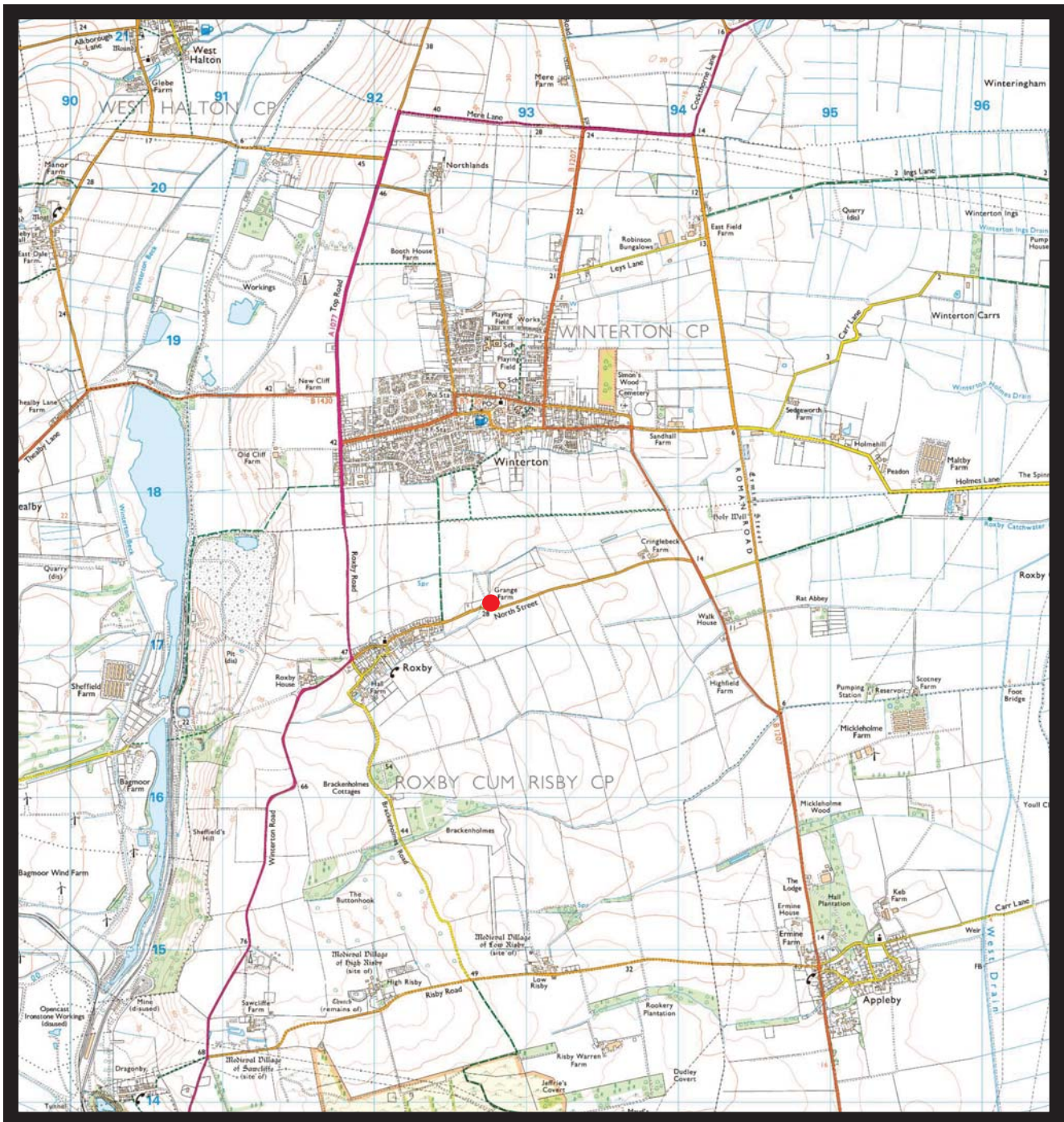
The Conservation of Habitats and Species Regulations 2017 (No. 1012) London: HMSO

Wildlife and Countryside Act 1981 (as amended) 2004 (c.39) London: HMSO

Appendix 1

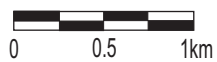
Maps

Map 1: Location map of Grange Farm, Roxby.



Ordnance Survey C Crown Copyright 2022. All Rights reserved
Licence Number 100051497. Plotted Scale 1:40,000

Site Plan 1:40,000



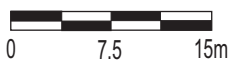
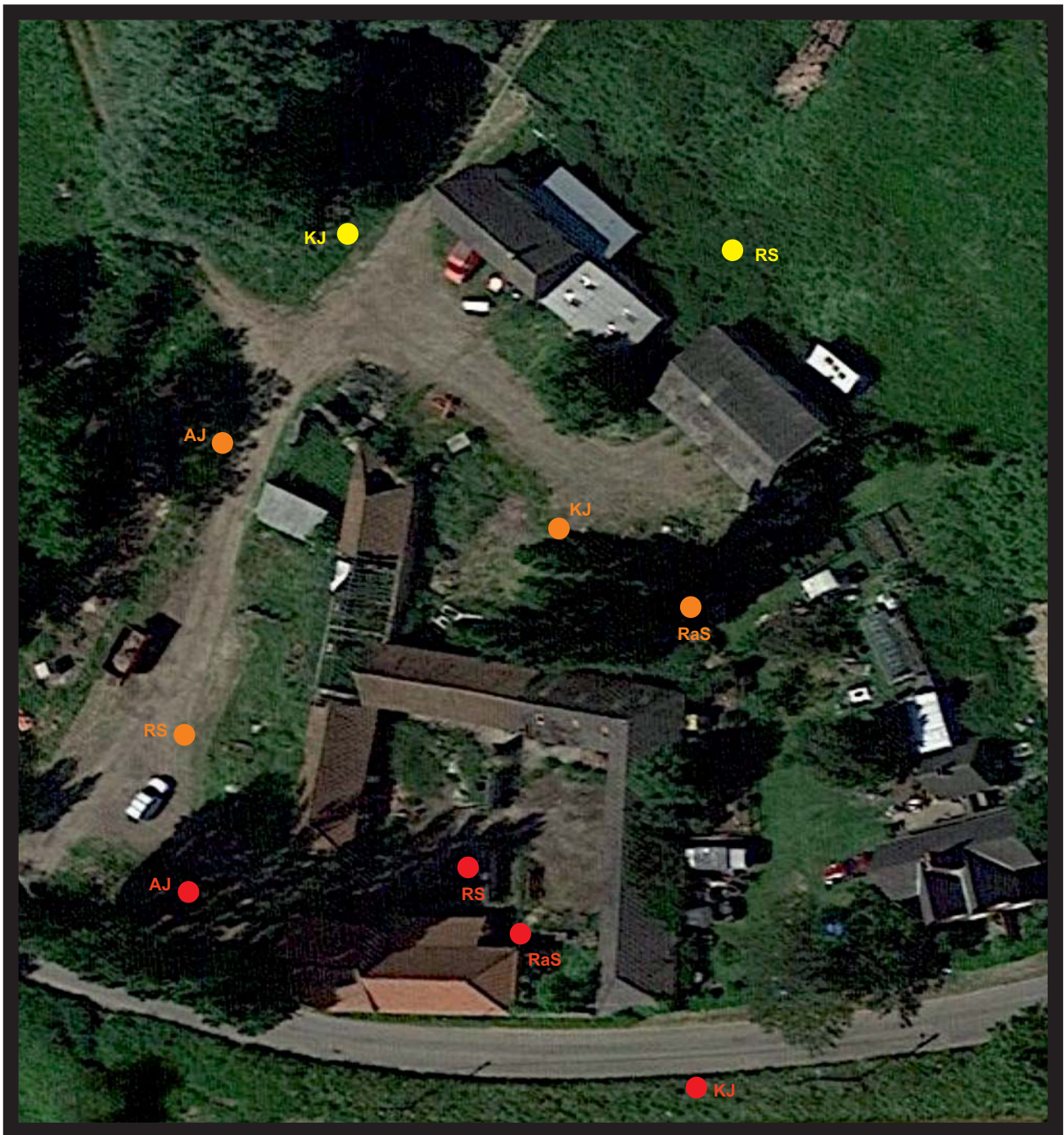
Legend

● Location of site



KJ Ecology Ltd
Drawn by : KJ
Date : 28/07/2022

Map 2: Location of bat surveyors around Grange Farm, Roxby.



Ordnance Survey Crown Copyright 2022. All Rights reserved
Licence Number 100051497. Plotted Scale 1:960

Site Plan 1:960

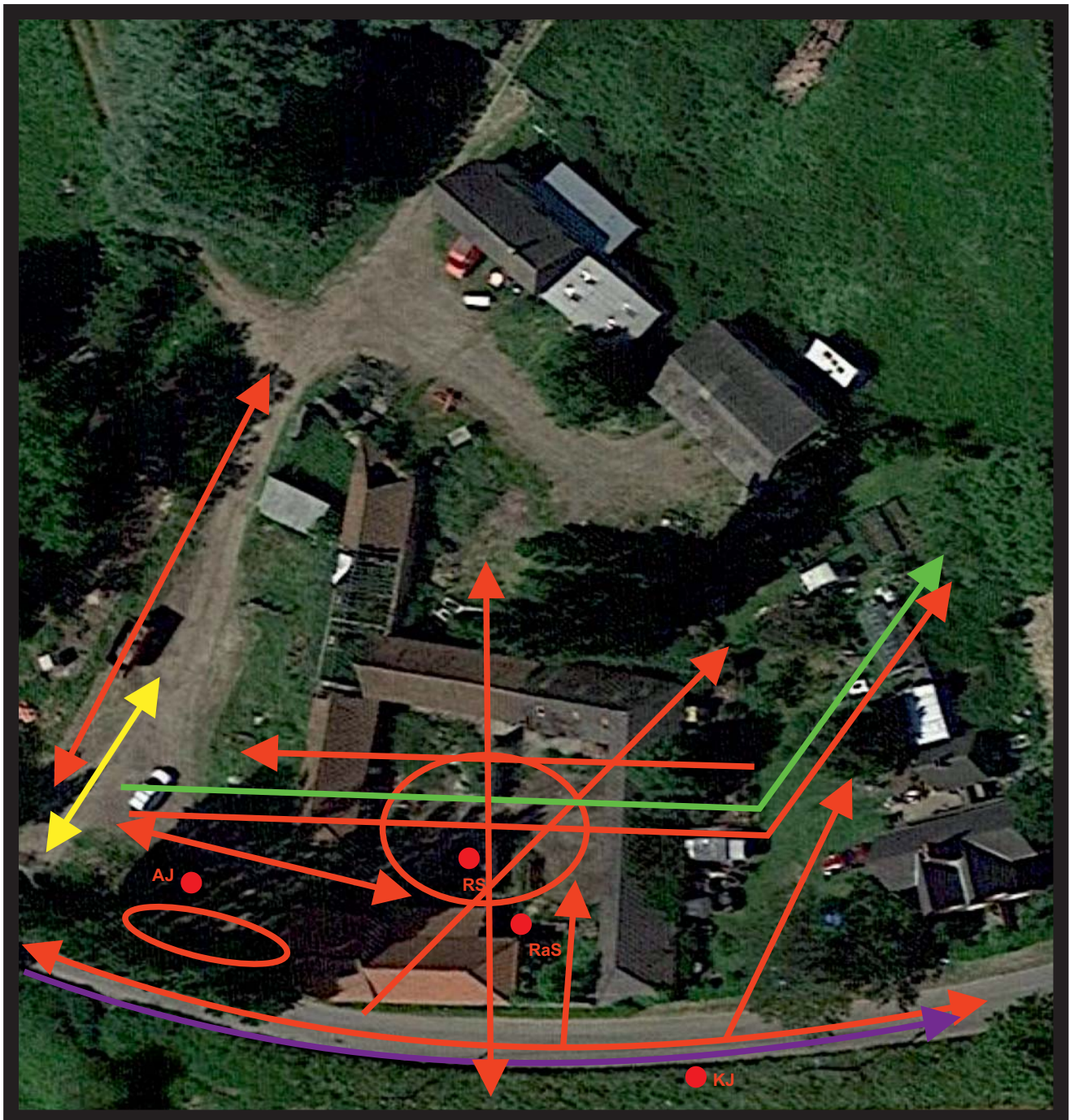
Legend

- Location of surveyors on 14th July 2022
- Location of surveyors on 15th July 2022
- Location of surveyors on 18th July 2022
- KJ Kevin Johnson
- RS Rod Strawson
- AJ Alan Johnson
- RaS Ralph Strawson

KJ Ecology Ltd
Drawn by : KJ
Date : 30/07/2022



Map 3: Approximate bat flight lines around Grange Farm, Roxby on the 14th July 2022.



Ordnance Survey Crown Copyright 2022. All Rights reserved
Licence Number 100051497. Plotted Scale 1:960

Site Plan 1:960

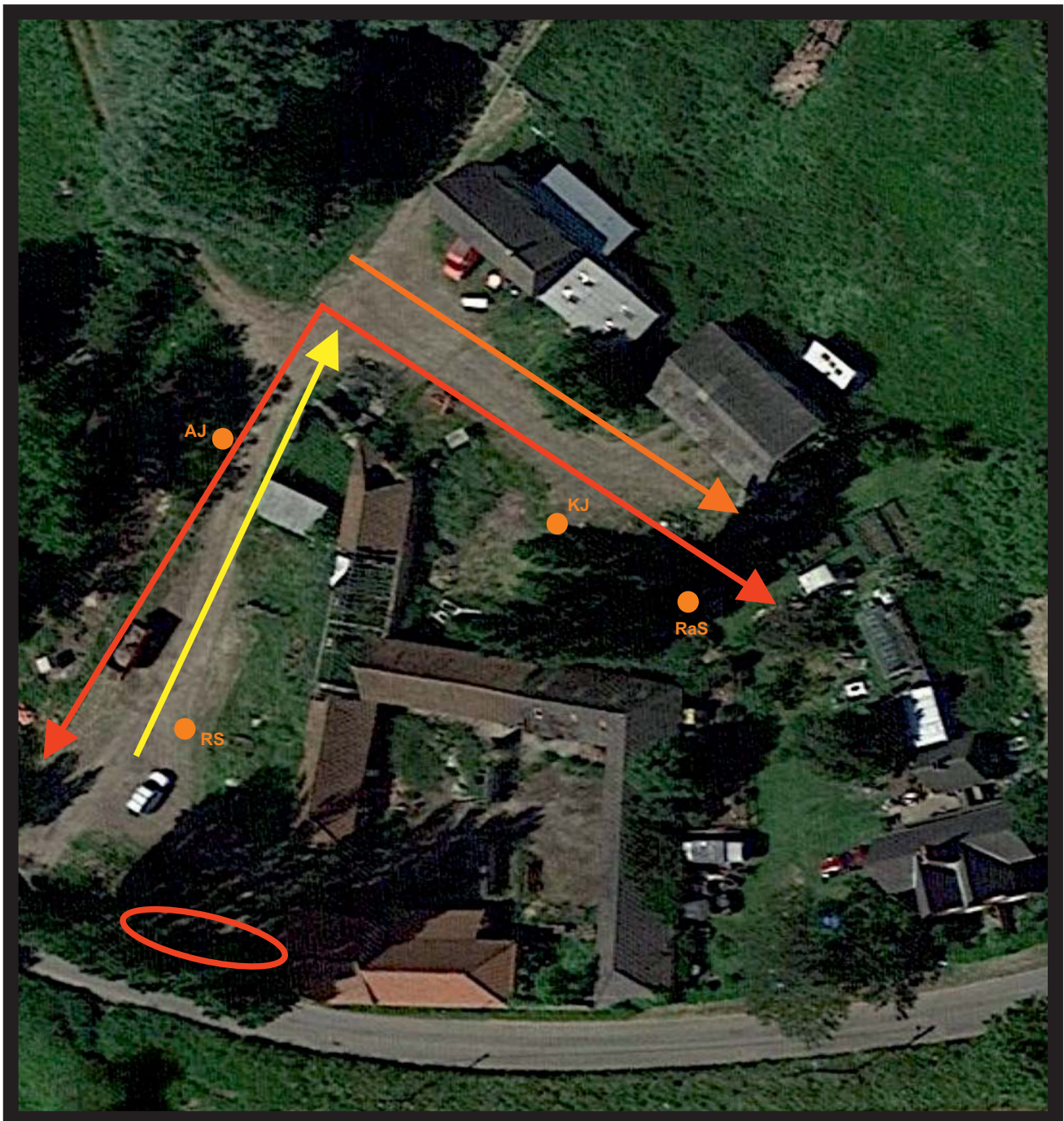
Legend

- Location of surveyors on 14th July 2022
- KJ Kevin Johnson
- RS Rod Strawson
- AJ Alan Johnson
- RaS Ralph Strawson
- Common Pipistrelle
- Soprano Pipistrelle
- Noctule
- Whiskered/ Brandt's

KJ Ecology Ltd
Drawn by : KJ
Date : 31/07/2022



Map 4: Approximate bat flight lines around Grange Farm, Roxby on the 15th July 2022.



Ordnance Survey Crown Copyright 2022. All Rights reserved
Licence Number 100051497. Plotted Scale 1:960

Site Plan 1:960

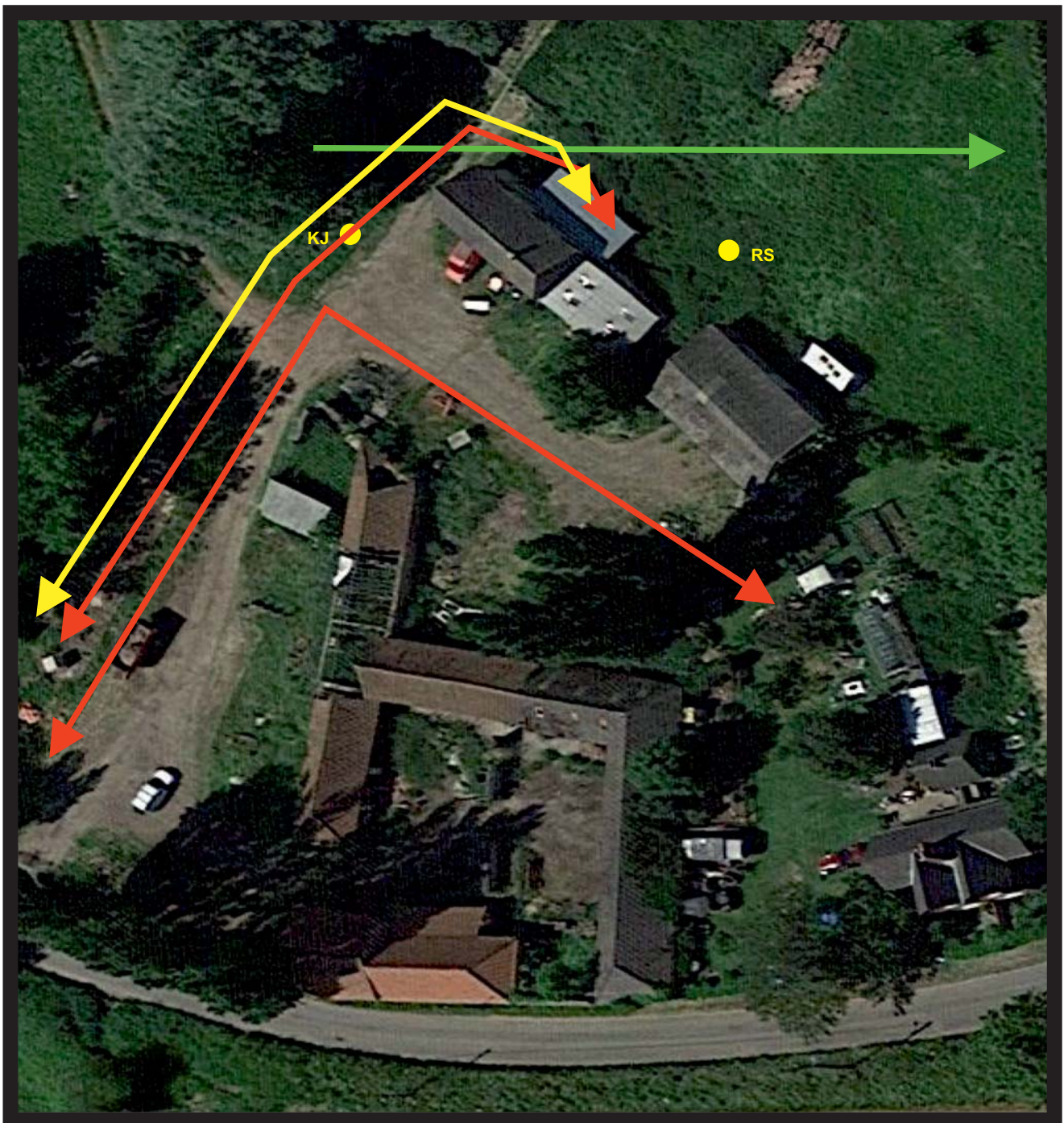
Legend

- Location of surveyors on 15th July 2022
- KJ Kevin Johnson
- RS Rod Strawson
- AJ Alan Johnson
- RaS Ralph Strawson
- Common Pipistrelle
- Soprano Pipistrelle
- Natterer's



KJ Ecology Ltd
Drawn by : KJ
Date : 31/07/2022

Map 5: Approximate bat flight lines around Grange Farm, Roxby on the 18th July 2022.



Ordnance Survey Crown Copyright 2022. All Rights reserved
Licence Number 100051497. Plotted Scale 1:960

Site Plan 1:960

Legend

- Location of surveyors on 18th July 2022
- KJ Kevin Johnson
- RS Rod Strawson
- Common Pipistrelle
- Soprano Pipistrelle
- Noctule



KJ Ecology Ltd
Drawn by : KJ
Date : 30/07/2022

Appendix 2

Bat Survey Results

Table 1: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 14th July 2022.

Location	Date	
Grange Farm, Roxby	14 th July 2022	
	Start	End
Time	21:11	22:56
Temp (C)	17	15
Cloud Cover (%)	40	50
Beaufort Wind Scale	4	4
Wind Direction	WNW	WNW
Time & Surveyor	Species	Notes
21:49 (KJ, AJ, RS)	Noctule	Faint and to the W
21:52 (KJ, AJ, RS)	Noctule	Faint and to the W
21:54 (KJ, AJ)	Noctule	Faint and to the W
21:55 (AJ, RS)	Common Pipistrelle	Going N along track to the W of the site
21:56 – 21:57 (KJ, AJ, RS)	Noctule	Faint and to the W
21:58 (AJ, RaS, RS)	Common Pipistrelle	Flies E into crew yard, circles and leaves W
21:59 (AJ, KJ)	Common Pipistrelle	Commuting E along road
22:00 (KJ, AJ, RS)	Noctule	Faint and to the W
22:00 (RS, RaS, KJ)	Common Pipistrelle	Commuting SW to NE across crew yard
22:01 (AJ)	Common Pipistrelle	Along track to W
22:02 (AJ)	Common Pipistrelle	Feeding around bottom of trees
22:03 (AJ, RS, RaS)	Common Pipistrelle	Flies in from W and forages around crew yard before leaving W
22:04 (KJ)	Noctule	Faint and to the W
22:04 (AJ)	Common Pipistrelle	Feeding around apex of Barn 1 and trees
22:05 (AJ, RS, RaS, KJ)	Noctule	Travelling E over crew yard and Barn 3 and then NE over garden – struggles with wind
22:06 (KJ)	Whiskered/ Brandt's	Commuting E to W along road
22:07 (AJ)	Common Pipistrelle	Along track to W
22:08 (KJ)	Noctule	Faint and to the W
22:10 (AJ, RS, RaS, KJ)	Common Pipistrelle	Commuting N to S across crew yard
22:11 (AJ)	Common Pipistrelle	Feeding around apex of Barn 1 and trees
22:14 (AJ)	Common Pipistrelle	Feeding around apex of Barn 1 and trees
22:16 (AJ, RS, RaS, KJ)	Common Pipistrelle	Flies E through crew yard over barn into garden then NE
22:17 (AJ)	Common Pipistrelle	Along track to W
22:18 (AJ, RS, RaS, KJ)	Common Pipistrelle	Flies E through crew yard over barn into garden then NE
22:19 – 22:20 (AJ, KJ)	Common Pipistrelle	Flies up and down road to S of buildings
22:21 – 22:22 (AJ)	Common Pipistrelle	Along track to W
22:23 (KJ)	Common Pipistrelle	Flies up and down road to S of buildings
22:24 (AJ)	Soprano Pipistrelle	Along track to W

KJ = Kevin Johnson
 RS = Rod Strawson
 AJ = Alan Johnson
 RaS = Ralph Strawson

22:25 (KJ, RS, AJ)	Noctule	Faint and to the W
22:25 (KJ, RaS, RS, AJ)	Common Pipistrelle	Commuting E to W through crew yard
22:26 (AJ, KJ, RaS, RS)	Common Pipistrelle x 2	Flies E along road, one goes into crew, one goes NE into garden. From crew yard goes W
22:27 (AJ)	Common Pipistrelle	Along track to W
22:28 – 22:32 (AJ, KJ)	Common Pipistrelle x 2	Flies up and down road to S of buildings
22:28 (AJ)	Soprano Pipistrelle	Along track to W
22:31 (AJ, RS, RaS)	Common Pipistrelle	Flies in from W and forages around crew yard before leaving W
22:33 (KJ, AJ, RS)	Noctule	Faint and to the W
22:36 – 22:47 (AJ, KJ)	Common Pipistrelle x 2	Flies up and down road to S of buildings
22:37 (RaS)	Common Pipistrelle x 2	Commuting N to S over crew yard
22:39 (AJ)	Soprano Pipistrelle	Along track to W

Table 2: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 15th July 2022.

Location	Date	
Grange Farm, Roxby	15 th July 2022	
	Start	End
Time	21:10	22:55
Temp (C)	19	17
Cloud Cover (%)	40	40
Beaufort Wind Scale	4	4
Wind Direction	WNW	WNW
Time & Surveyor	Species	Notes
21:47 (KJ, AJ, RS, RaS)	Noctule	W of site
21:48 (KJ, RaS)	Natterers	Flying SE on track to S of Barns 8 and 9
21:51 (KJ, AJ, RS, RaS)	Noctule	W of site
21:53 (KJ, RaS, RS)	Common Pipistrelle	In crew yard
21:55 – 21:58 (KJ, AJ, RS, RaS)	Noctule	W of site
21:59 (KJ, RaS, RS)	Common Pipistrelle	In crew yard
22:02 – 22:03 (KJ, AJ, RS, RaS)	Noctule	W of site
22:02 (KJ, RaS)	Common Pipistrelle	Around garden to E
22:04 (RS, AJ, KJ, RaS)	Common Pipistrelle	Flying N along track to W of site and then E on track to S of Barns 8 and 9
22:06 – 22:07 (RS, AJ)	Common Pipistrelle	Around trees close to Barn 1
22:07 (KJ, AJ, RS, RaS)	Noctule	W of site
22:08 (AJ)	Common Pipistrelle	Around trees close to Barn 1
22:10 – 22:15 (RS, AJ, KJ, RaS)	Common Pipistrelle	Flying N along track to W of site and then E on track to S of Barns 8 and 9, then returns. Repeat passes.
22:18 – 22:19 (RS, AJ, KJ, RaS)	Common Pipistrelle	Flying N along track to W of site and then E on track to S of Barns 8 and 9, then returns. Repeat passes.
22:22 – 22:39 (RS, AJ, KJ, RaS)	Common Pipistrelle	Flying N along track to W of site and then E on track to S of Barns 8 and 9, then returns. Repeat passes.
22:30 (RS, AJ)	Soprano Pipistrelle	Going N along track to W
22:31 (KJ, RaS)	Natterer's	Flying E on track to S of Barns 8 and 9
22:34 (KJ, RaS)	Whiskered/Brandt's	Around garden to E
22:34 (RS, AJ)	Soprano Pipistrelle	Going N along track to W
22:36 (RS, AJ)	Soprano Pipistrelle	Going N along track to W
22:38 (KJ, RaS)	Whiskered/Brandt's	Around garden to E

KJ = Kevin Johnson RS = Rod Strawson AJ = Alan Johnson RaS = Ralph Strawson
--

Table 3: Presence/ Absence Bat Survey results for Grange Farm, Roxby on the 18th July 2022.

Location	Date	
Grange Farm, Roxby	18 th July 2022	
	Start	End
Time	21:06	22:51
Temp (C)	31	26
Cloud Cover (%)	10	10
Beaufort Wind Scale	1	1
Wind Direction	E	SE
Time & Surveyor	Species	Notes
21:47 (KJ, RS)	Noctule	Flying W to E over sheep field
21:50 (KJ, RS)	Noctule	W of site
21:54 (KJ)	Noctule	W of site
21:55 (KJ)	Common Pipistrelle	Around garden to E
21:59 (KJ)	Noctule	W of site
22:01 (KJ)	Common Pipistrelle	Along track to W of site and then E on track to S of Barns 8 and 9
22:04 (RS)	Noctule	W of site
22:07 – 22:08 (KJ)	Common Pipistrelle	Flying N along track to W of site, then N into sheep shelter and returns. Repeat passes
22:08 (KJ, RS)	Noctule	W of site
22:09 – 22:13 (KJ)	Common Pipistrelle	Along track to W of site and then E on track to S of Barns 8 and 9, then returns. Repeat passes.
22:09 – 22:12 (KJ, RS)	Common Pipistrelle	Flying N along track to W of site, then N into sheep shelter and returns. Repeat passes
22:15 (KJ, RS)	Noctule	W of site
22:16 (KJ, RS)	Soprano Pipistrelle	Going N along track to W, then N into sheep shelter before going S
22:17 – 22:18 (KJ)	Common Pipistrelle x 2	Flying N along track to W of site, then N into sheep shelter and returns. Repeat passes
22:20 (KJ, RS)	Noctule	Flying W to E over sheep field
22:20 – 22:22 (KJ)	Common Pipistrelle	Along track to W of site and then E on track to S of Barns 8 and 9, then returns. Repeat passes. Feeding buzzes heard.
22:23 (KJ, RS)	Noctule	S of site
22:27 (KJ, RS)	Noctule	S of site
22:27 (KJ)	Common Pipistrelle	Flying N on track to W of site
22:34 (KJ)	Common Pipistrelle	Flying N on track to W of site
22:35 (KJ, RS)	Noctule	Flying W to E over sheep field
22:38 (KJ, RS)	Noctule	Flying W to E over sheep field with feeding buzzes
22:39 (KJ)	Common Pipistrelle	Flying N on track to W of site

KJ = Kevin Johnson
RS = Rod Strawson