FUTURESECOLOGY

Redrow Homes (Yorkshire) Ltd, R. Kershaw and S. Gill

Bradley Villa Farm, Kirklees

ADDENDUM BAT REPORT

Report Reference Number: FE30/BAT02

September 2021

Futures Ecology Ltd
Carrwood Park, Swillington Common Farm, Selby Rd, Leeds LS15 4LG

Company Number: 12125083

REV	Issue Status	Author or Reviewer	Name & Qualifications	Position	Date
-	Draft 1	Author	K. Haymes BSc (Hons) ACIEEM	Senior Ecologist	07.09.2021
		Reviewer	J. Eales BSc	Managing Director	13.09.2021

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1.0 INTRODUCTION

1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Redrow Homes (Yorkshire) Ltd, R. Kershaw and S. Gill. It provides the results of additional bat surveys undertaken at a site in Bradley, Huddersfield (central grid reference: SE 152 205) in 2021.

1.2 Following initial ecological assessments within the original redline boundary in 2020, additional land was added into the redline boundary to the north to facilitate drainage of the proposed development site. Consequently, as a result of the additional proposals, additional surveys were required of tree T2 to ascertain the presence / likely absence of a bat roost within the tree as it will now be impacted by the proposals. This information will inform the impact assessment of the proposed project. No other trees exhibiting bat roosting potential are considered likely to be affected directly or indirectly by the development proposals.

SITE LOCATION AND CONTEXT

1.3 The entire study area is 14.5ha in extent and comprises grazed, improved grassland fields associated with Villa Farm in Bradley. Hedgerows and post and fire fences form the boundaries of the site. The Bradley Villa Farm agricultural buildings and a number of residential properties border the site to the south. The M62 is located to the north of Site, the residential area of Fixby is situated to the west, with Shepherd's Thorn Lane immediately adjacent the eastern boundary and Bradley Park Golf Course beyond.

DEVELOPMENT PROPOSALS

1.4 The proposed development is for the construction of 275 dwellings, with greenspace and other associated infrastructure. This forms part of a wider housing allocation, which is allocated in the adopted Kirklees Local Plan (2019) Site Reference: HS11.

2.0 METHODOLOGY

GROUND LEVEL ASSESSMENTS OF TREES

2.1 All trees within the additional parcel of land were assessed for their potential to support roosting bats using statutory guidance (Natural England, 2019)[1] and best practice survey methodology (Collins, 2016[2] and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)[3]. The survey was undertaken on the on 1st April 2021.

2.2 For full methodology, please refer to the Bat Report (Futures Ecology, May 2021, Ref: FE30/BAT01).

[1] Bats: surveys and mitigation for development projects: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed 12/11/2019)
[2] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1
[3] Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn*). JNCC, Peterborough.

ENDOSCOPE SURVEY

2.3 A detailed inspection of the potential roosting feature (PRF) was undertaken on 12th May 2021 of tree T2 (identified with moderate bat roosting potential and directly affected by the proposals as a result of proposed felling). This survey was undertaken by an appropriately licenced ecologist (Natural England Reference: 2015-16150-CLS-CLS) using an endoscope, with torch and camera. The feature was inspected for evidence of current or past occupation by bats.

NOCTURNAL TREE SURVEYS

2.4 Two nocturnal surveys were undertaken on 12th May and 20th July 2021 of tree T2 (identified with moderate bat roosting potential and directly affected by the proposals as a result of proposed felling). This survey is in line with the current industry guidance (Collins, 2016[4]).

2.5 Surveyors were positioned on either side of T2 to ensure all aspects of the tree could be observed. Wildlife Acoustics Inc. Echo Meter Touch Pro2® bat detectors in conjunction with the Echo Meter Touch® app for the Apple Inc iPad® and Android were used during the surveys.

2.6 The dusk emergence survey was undertaken approximately 15 minutes prior to sunset and for a duration of between 90-120 minutes. The dawn re-entry survey was undertaken between 90-120 minutes prior to sunrise and approximately 15 minutes following sunrise. Data collected, namely recorded bat calls, were analysed, where necessary, using Kaleidoscope© version 12 (Wildlife Acoustics Inc) software package, by taking measurements of the peak frequency, inter-pulse interval, call duration and end frequency. This method was used to confirm the species of bat recorded during the survey.

2.7 The survey was undertaken during suitable weather conditions, when the ambient air temperature exceeded 10°C and there was little to no rain or wind (Beaufort 3 or 5m/s). Table 1 below provides a summary of the survey date and weather conditions.

Table 1: Nocturnal Tree Survey Dates and Weather Conditions

Date	Sunset / sunrise	Temperature (˚C)	Rain (0-5)	Wind (0-5)	Cloud (%)
12.05.2021	20:57	11	0	0	20
20.07.2021	05:01	15	0	1	10

[4] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London. ISBN-13-978-1-872745-96-1.

3.0 RESULTS

GROUND LEVEL ASSESSMENT OF TREES

3.1 Four trees within the additional northern land, T2-T5, were identified as providing PRFs for bats on 1st April 2021. A summary of the findings is included in Table 2 below.

Table 2: Trees with Bat Roosting Potential

Tree Ref.	Species	Aspect & height of feature	Potential for roosting bats	Photograph
T2	Sycamore *Acer pseudoplatanus*	Knot hole in trunk 3m high on SW aspect, cavity 5cm x 5cm.	Moderate	
T3	English Oak *Quercus robur*	Knot hole in trunk 3m high on SW aspect, cavity 3cm x 3cm.	Moderate	

Tree Ref.	Species	Aspect & height of feature	Potential for roosting bats	Photograph
T4	English Oak *Quercus robur*	Tear down trunk with flaky bark causing cavities approximately 5cm x 5cm. Feature 2.5 high on SW aspect. Coal tit nest also noted.	Moderate	
T5	English Oak *Quercus robur*	Knot hole on branch 2.5m high on N aspect. Cavity 10cm x 5cm. Upward facing.	Negligible	

ENDOSCOPE SURVEY

3.2 A detailed endoscope survey of T2 found no evidence of current or past occupation of the knot hole by roosting bats. The hole extended back approximately 8-10cm and then a small cavity, approximately 4cm in diameter, extended upwards for another 8-10cm. No bats or evidence of bats, such as droppings or staining were present. The interior of the cavity was quite wet as the hole is slightly upward facing, allowing rainwater ingress, presumably as water trickles down the main stem. There was a small amount of detritus in the base of the cavity but nothing which suggested bat roosting.

3.3 The cavity had potential to support individual or a small number (2 or 3 maximum) bats, but not a significant colony (such as maternity) and therefore would still be considered to provide moderate bat roosting potential.

NOCTURNAL TREE SURVEYS

3.4 As T2 was classified as providing moderate bat roosting potential and will be felled to facilitate the proposals, two nocturnal surveys were conducted to ascertain the presence / likely absence of a bat roost within the tree.

3.5 The first survey was undertaken at dusk on 12th May 2021. The survey started at 20:45 and continued until 22:45, with sunset at 20:57. Common pipistrelles and noctules were noted foraging during the survey, however no bats emerged from T2.

3.6 The second survey was undertaken at dawn on and 20th July 2021. The survey started at 03:01 and ended at 05:16 with sunrise at 05:01. Common pipistrelle was the only species recorded during the survey with individuals noted foraging along the adjacent treeline. As with the previous survey, no bats were found to be roosting in association with T2.

4.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

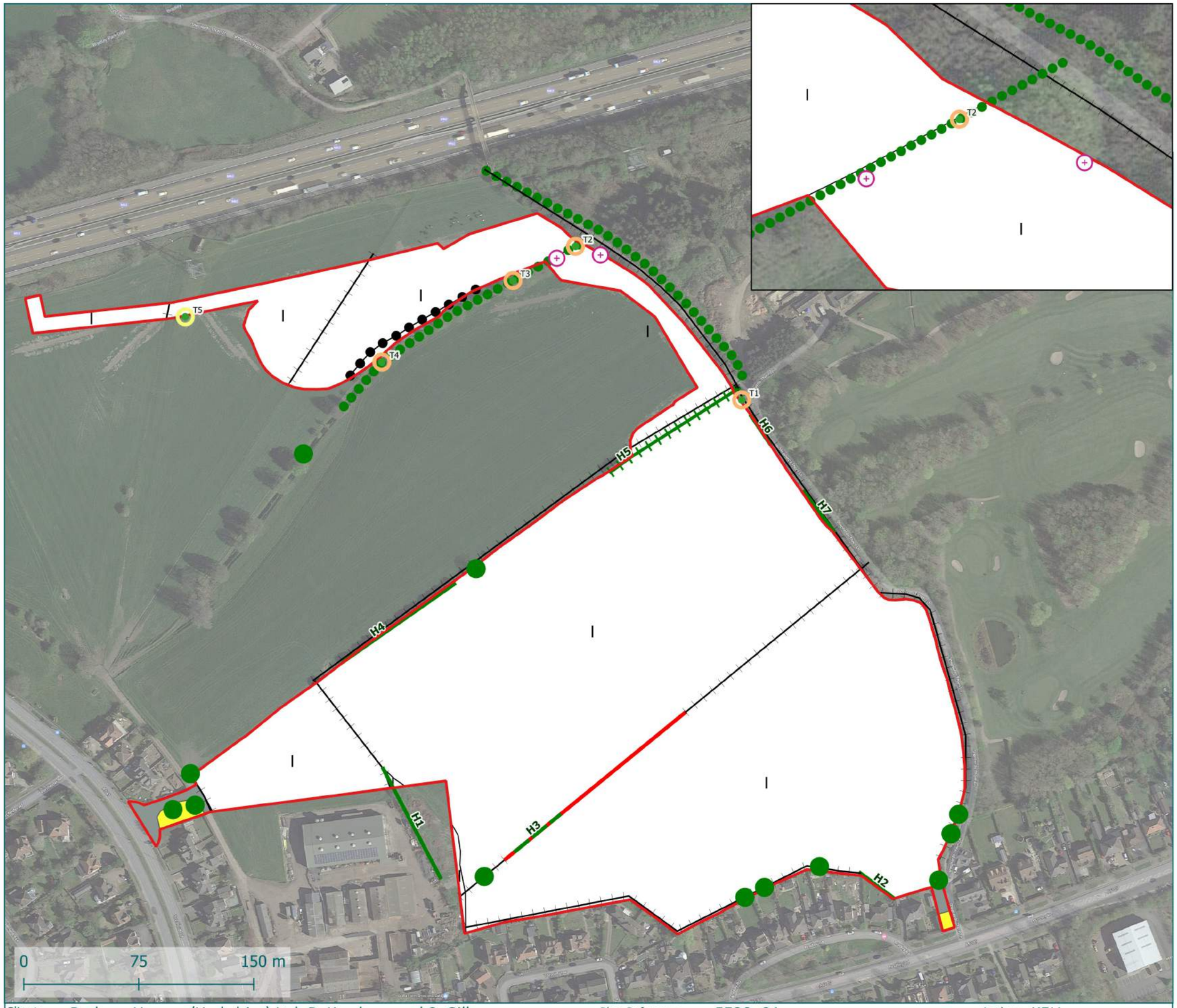
4.1 All bat species and their roosts are fully protected in the UK by the Wildlife & Countryside Act (WCA) 1981 (as amended) and at a European level by the Conservation of Habitats & Species Regulations 2017 (as amended). Some bat species are Species of Principal Importance under the NERC Act. Soprano pipistrelle, noctule and brown-long eared bats are also listed as a Local Species of Principle Importance on the Kirklees BAP.

BAT ROOSTS IN TREES

4.2 Tree T2 was found to provide moderate bat roosting potential. No evidence of roosting bats was observed during the detailed endoscope survey or the nocturnal surveys, therefore the tree can be removed without constraints from roosting bats.

4.3 As bat tree roosts are transitory and new roosts can develop in a relatively short period of time, if the tree is not felled within 12 months of the final nocturnal survey (20th July 2022), an updated survey may be required to further confirm the status of the tree in terms of bat roosting, prior to felling.

4.4 All other trees with bat roosting potential are to be retained within the proposals and buffered from any disturbance impacts.



FUTURESECOLOGY

Carrwood Park, Swillington Common Farm, Selby Road, Leeds, LS15 4LG
Telephone: 01132 878580

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

Key

- Site Boundary
- Tree (moderate bat potential)
- Tree (negligible bat potential)
- Surveyor position

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Title:	Figure 1 - Trees with Bat Roosting Potential	Report Reference:	FE30/BAT02	Scale:	1:2500 @A3

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