



Chantae Wells BSc (Hons) MSc

Consultant Ecologist

Email: chantaewells@arbtech.co.uk

Arbtech Consulting Ltd

arbtech.co.uk

Bat Emergence and Re-Entry Surveys (BERS)

Survey site:

Lullings Cottage, West Hill, Balcombe, Haywards Heath, West Sussex RH17 6Q

Client:

Tim Musker

Report date:

02nd July 2024

Project:

This report is prepared to inform a planning application for the proposal described as: the demolition and rebuild of two garden sheds and the existing cottage.

This report is supplementary to the Preliminary Roost Assessment report completed by Phlorum Ltd (2022).

BERS survey methodology and legislation can be found in the Arbtech Supplement: [BERS Methodology and Legislation - 2024.](#)

<p>This report is an addendum to and must be read in conjunction with the Preliminary Roost Assessment completed by Phlorum Ltd (2022) for the same site address and client</p> <p>This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.</p> <p>All clients are expected to read and understand this section, or to contact the lead surveyor for advice.</p>	
<p>Executive Summary</p>	
<p>The surveys undertaken to date concluded the likely absence of roosting bats from both buildings. No bats were observed emerging from either building during the emergence survey. No evidence of bats was found during the Preliminary Roost Assessment or during the material changes check. However, the loft space was inaccessible during both of these checks.</p> <p>A low impact lighting strategy should be adopted for the site following guidance from the Bat Conservation Trust: Bats and Artificial Lighting in the UK' Guidance Note GN 08/23 https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/</p>	
<p>The site surveys were designed and managed by Chantae Wells (Accredited Agent for Class 1 techniques under Natural England Bat Licence Number: 2018-33540-CLS-CLS) and conducted on 15/05/2024 and 12/06/2024.</p>	
<p>See surveyor locations in the BERS plan in Appendix 1a and 1b.</p>	
<p><i>Limitations</i></p>	<p>Technical issues with the IR camera during the first visit resulted in lack of footage for survey 2 position (B1).</p>

Field Survey							
Dusk Emergence Survey 1							
Building B1							
<i>Building inspection prior to survey</i>		The building was subject to an inspection prior to the survey beginning, due to the large gap between Preliminary Roost Assessment and BERS surveys. The buildings were determined to be materially the same. The roost features identified during the Preliminary Roost Assessment were also subject to an inspection prior to the BERS to check for evidence of roosting bats. No evidence of bats was observed.					
<i>Surveyor and position</i>		Lead Surveyor 1 – Rachel Wick – One year bat survey experience – observing the western and southern elevation Surveyor 2 – Max Matthews – Two years bat survey experience – observing the southern and eastern elevations Surveyor 3 - Samara Bebb-Bassett – Three years bat survey experience – observing the northern and eastern elevations					
<i>Weather (start/end)</i>		Temperature (°C): 18.2 Relative humidity (%): 72.5 Cloud cover (%): 0 Wind (m/s): 0 Rain: None			Temperature (°C): 14.5 Relative humidity (%): 64.4 Cloud cover (%): 0 Wind (m/s): 0 Rain: None		
<i>Equipment used</i>		Echometer Touch 2, Magenta 4, IR cameras, IR torches					
Results							
Date of survey	Sunset, Start and end times	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
15/05/2024	20:43 20:28 – 22:07	No emergences	N/A	N/A	N/A	N/A	N/A

Surveyor observations		
<p><i>Surveyor 1</i></p>	<p>No bat emergences or re-entry observed. The first call heard was very distant Noctule at 21:13. From 21:17 to 22:06 there was constant activity from both common and soprano pipistrelles, mostly heard but not seen. At 21:40 a common pipistrelle was observed flying above this tree line from west to east. At least seven separate passes were recorded by both common and soprano pipistrelles flying between the tree line and the building, in from both the west and the east.</p>	
<p><i>IR position 1</i></p>	<p>The footage reflected the view of surveyor 1.</p>	
<p><i>Surveyor 2</i></p>	<p>No bat emergences or re-entry observed. The first bat of the night was a Noctule heard not seen at 21:12. From 21:17 to 21:28 several common and soprano pipistrelles were seen foraging in front of the eastern elevation of B1. Several more common and soprano pipistrelles were heard but not seen until the final bat, a soprano pipistrelle, was heard at 22:03.</p>	
<p><i>IR position 2</i></p>	<p>Due to technical issues, the footage from IR camera 2 was inaccessible.</p>	<p>N/A</p>

<p><i>Surveyor 3</i></p>	<p>No bat emergences or re-entry observed. The detector recorded numerous passing bats with the first being a Noctule at 21:12. With onwards Common Pipistrelle passing directly overhead from the open fields towards B2. Common pipistrelles, Noctules and a Soprano pipistrelle were recorded until 21:52 when the final bat, a Noctule, was heard.</p>	
<p><i>IR position 3</i></p>	<p>The footage reflected the view of surveyor 3.</p>	
<p>Building B2</p>		
<p><i>Building inspection prior to survey</i></p>	<p>A close inspection of the building was completed to compensate for the large gap between Preliminary Roost Assessment and BERS surveys. The roost features identified during the and Preliminary Roost Assessment were subject to an inspection prior to the BERS to check for evidence of roosting bats. No evidence of roosting abts was found.</p>	
<p><i>Surveyor and position</i></p>	<p>Surveyor 4 – Diego Landaberea – One year bat survey experience – observing the northern and western elevations Surveyor 5 – Rachael Cohen – Two years bat survey experience – observing the eastern elevation Surveyor 6 – Zoe Pattinson – One year bat survey experience – observing the southern elevation</p>	
<p><i>Equipment used</i></p>	<p>Echometer Touch 2, Magenta 4, IR cameras, IR torches</p>	

Results							
Date of survey	Start, end and sunset time	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
15/05/2024	20:43 20:28 - 22:07	No emergences	N/A	N/A	N/A	N/A	N/A
Surveyor Observations							
<i>Surveyor 4</i>		<p>No bat emergences or re-entry observed. There was foraging and commuting activity by Common pipistrelle, Soprano pipistrelle, Noctule and Barbastelle throughout the duration of the survey. The first bat activity was a Noctule at 21:02, heard not seen. There was intermittent activity by Common pipistrelles and Soprano pipistrelles from 21:03 until 21:33. At 21:33 there was a foraging Noctule followed by a Common Pipistrelle at 21:37. At 21:38 there was a foraging activity by a Western Barbastelle. followed by Common Pipistrelles' foraging 21:44 until 21:48. Noctule activity was recorded at 21:51 and 21:55. The last bat activity was at 22:05, a Common Pipistrelle pass.</p>					
<i>IR position 4</i>		<p>The footage reflected the view of surveyor 4.</p>					

<p><i>Surveyor 5</i></p>	<p>No bat emergences or re-entry observed. The first bat was a Noctule at 20:43, heard but not seen. Several more Noctules were heard but not seen up until 21:22. A Natterer’s bat was heard but not seen at 20:49. Both soprano and common pipistrelles were heard and seen from 20:58 to 21:45. Passes observed from pipistrelles were concentrated above surveyor 4, at the northern elevation of B2. A brown long-eared bat was heard not seen at 21:38. The final bat was a common pipistrelle heard not seen at 21:45.</p>	
<p><i>IR position 5</i></p>	<p>The footage reflected the view of surveyor 5.</p>	
<p><i>Surveyor 6</i></p>	<p>No bat emergences or re-entry observed. The first bat was a common pipistrelle at 21:14 seen passing from west to east over B2. From this point to the end of the survey, many more common pipistrelles were heard and seen. Passes were concentrated over B2, from west to east or from north to south and back.</p>	

<i>IR position 6</i>	The footage reflected the view of surveyor 6.	
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Field Survey		
Dusk Emergence Survey 2		
Building B1		
<i>Surveyor and position</i> <i>And additional IR</i>	Lead Surveyor 1 – Rachel Wick – One year bat survey experience – observing the western and southern elevation Surveyor 2 – Autumn Neilson – One year bat survey experience – observing the western elevation Surveyor 3 – Chantae Wells – Accredited on Natural England Bat Licence Number: 2018-33540-CLS-CLS – observing the northern and eastern elevations Surveyor 4 – Luke Pembroke – One year bat survey experience – observing the northern elevation IR camera 4 – observing the roof of the western elevation	
<i>Weather (start/end)</i>	Temperature (°C): 15.2 Relative humidity (%): 65.7 Cloud cover (%): 20 Wind (m/s): 0 Rain: None	Temperature (°C): 13.0 Relative humidity (%): 68.8 Cloud cover (%): 0 Wind (m/s): 0.1 Rain: None
<i>Equipment used</i>	Echometer Touch 2, Magenta 4, IR cameras, IR torches	

Results							
Date of survey	Sunset, Start and end times	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
12/06/2024	21:16 21:00 – 23:00	No emergences	N/A	N/A	N/A	N/A	N/A
Surveyor observations							
<i>Surveyor 1</i>		<p>No bat emergences or re-entry observed. The first bat was a Noctule at 21:31 passing over B2. Throughout the survey several Noctules were heard not seen until 21:55. Beginning at 21:28, a few faint common pipistrelle calls were heard not seen. At 21:39 a brown long-eared bat was heard but not seen. At 22:46 a very faint Daubenton’s myotis bat was heard but not seen. The final call heard was from a common pipistrelle, foraging over surveyor 3 and B2 from 22:47 to 22:23.</p>					
<i>IR position 1</i>		<p>The footage reflected the view of surveyor 1.</p>					

<p><i>Surveyor 2</i></p>	<p>No bat emergences or re-entry observed. First bat activity at 21:32, a noctule passing over B1 north to south. Noctule passing and foraging activity was frequent until 21:54, concentrated in the tree line and along the northern and eastern elevations of B1. Common pipistrelles were heard not seen periodically from 21:53 until 22:55, one seen foraging along the elevation from 22:47 until 22:53. Brown long-eared bats were periodically seen and heard foraging along the tree line adjacent to the western elevation from 21:57 until 22:51. A soprano pipistrelle was heard not seen at 22:45. Last bat activity was a common pipistrelle heard not seen at 22:55.</p>	
<p><i>IR position 2</i></p>	<p>The footage reflected the view of surveyor 2.</p>	
<p><i>Surveyor 3</i></p>	<p>No bat emergences or re-entry observed. During the course of the survey, there was foraging and commuting activity by Common pipistrelle, Noctule and Daubenton's bat. The first bat activity was a pipistrelle passing at 21:24 (species not determined due to lack of echolocation) from north to east. A common pipistrelle was foraging intermittently between 21:25 and 21:53. A noctule was foraging intermittently to the south-west of the site between 21:32 and 22:05. At 22:46 a Daubenton's bat was heard but not seen. The last bat activity was a common pipistrelle, heard but not seen at 22:52.</p>	

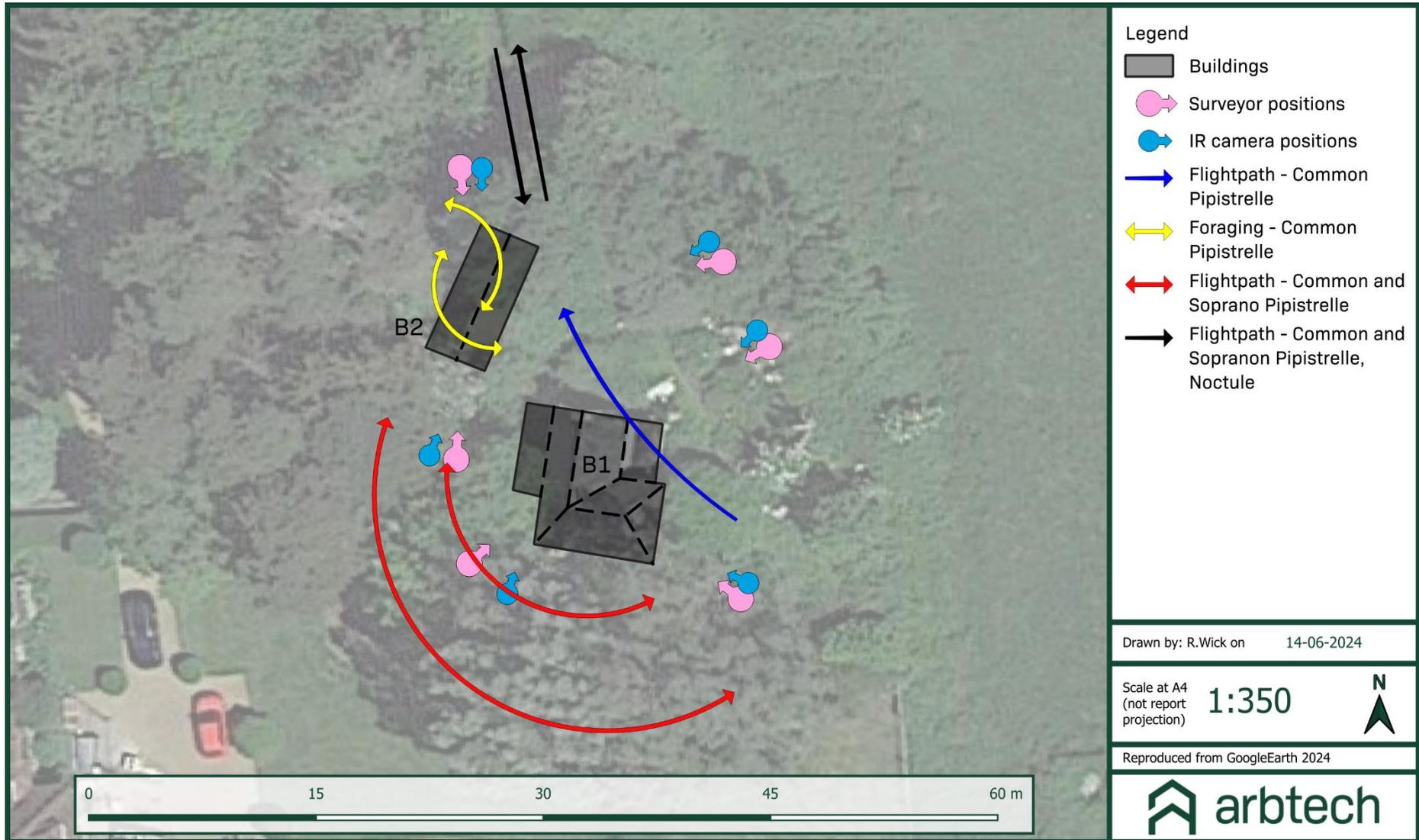
<p><i>IR position 3</i></p>	<p>The footage reflected the view of surveyor 3.</p>	 <p>An infrared night photograph showing the exterior of Lullings Cottage. The building is white with dark window frames and a chimney. The image is timestamped '06/12/2024 22:47:03' in the bottom right corner.</p>
<p><i>Surveyor 4</i></p>	<p>No bat emergencies or re-entry observed. The first bat detected was a noctule at 21:32. A noctule was then seen and heard foraging and passing over head of site intermittently until 21:48. A common pipistrelle passed west to east over the north side elevation of B1 at 21:52. Between 22:07 - 22:54, infrequent common pipistrelle activity was detected with one further pass seen from west to east.</p>	
<p><i>IR position 4</i></p>	<p>No bat emergencies or re-entry observed. No bat activity was recorded.</p>	 <p>An infrared night photograph showing a close-up view of the side of Lullings Cottage, focusing on a window and the roofline. The image is timestamped '06/12/2024 22:58:54' in the bottom right corner.</p>

Building B2							
<i>Building inspection prior to survey</i>		The roost features identified during the Preliminary Ecological Appraisal and Preliminary Roost Assessment were subject to an inspection prior to the BERS to check for evidence of roosting bats.					
<i>Surveyor and position</i>		Surveyor 5 – Diego Landaberea – One year bat survey experience – observing the southern and eastern elevations Surveyor 6 – Tom Smith – One year bat survey experience – observing the northern and western elevations					
<i>Equipment used</i>		Echometer Touch 2, Magenta 4, IR cameras, IR torches					
Results							
Date of survey	Start, end and sunset time	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
12/06/2024	21:16 21:00 – 23:00	No emergences	N/A	N/A	N/A	N/A	N/A
Surveyor Observations							
<i>Surveyor 5</i>		No bat emergence or re-entry observed. The first bat activity was a Noctule passing at 21:32 and again at 21:35, with intermittent foraging activity by Noctule between 21:39 to 21:51 to the south-west. This was followed by a common pipistrelle at 21:53 heard not seen. At 22:29 a Brown long eared commuted from North to South-west. At 22:45, 22:51 and 22:53 soprano pipistrelle was seen passing over B2 north to south. At 22:46 a Daubenton’s bat was heard but not seen. The last bat activity was a Soprano pipistrelle, heard but not seen at 22:53.					

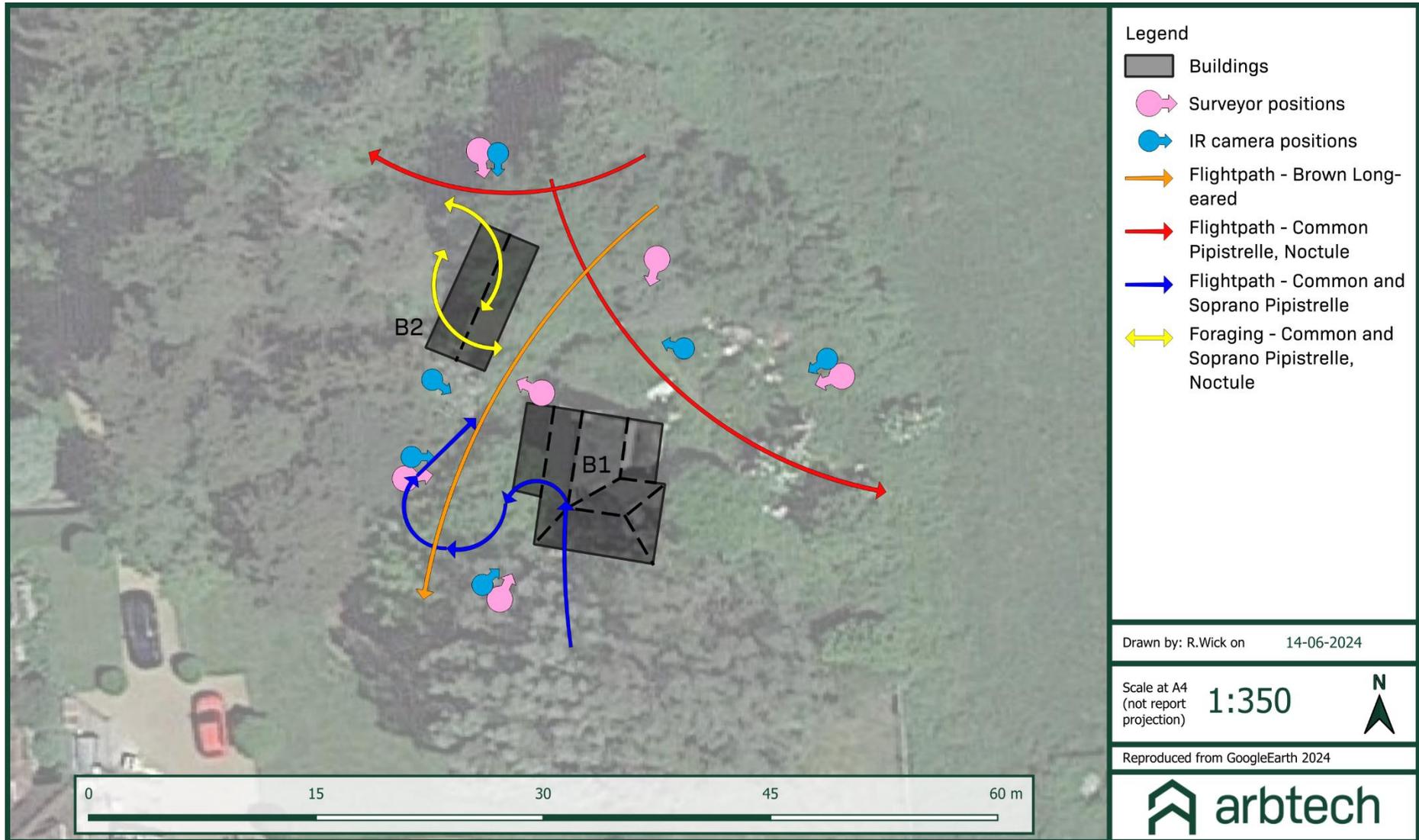
<p><i>IR position 5</i></p>	<p>The IR camera was positioned to focus on the eastern elevation of B2, including areas of the roof not visible to surveyor 5 due to the tree.</p>	
<p><i>Surveyor 6</i></p>	<p>The first bat, at 21:23, was seen not heard passing north to southeast from behind surveyor 6 (unidentified species due to lack of echolocation). Between 21:23 and 22:54 commuting routes established from north to southeast and north to southwest over B2; three common pipistrelles via north to southeast, and four pipistrelles (three common and one soprano) via north to southwest. Noctules were observed foraging above the site intermittently throughout survey between 21:32 and 21:46. A Daubenton's was heard not seen at 21:46. The last bat was a common pipistrelle commuting north to southeast at 21:54.</p>	
<p><i>IR position 6</i></p>	<p>The footage reflected the view of surveyor 6.</p>	

Conclusions, Impacts and Recommendations	
<i>Survey Results Summary</i>	<p>The surveys undertaken to date have concluded the likely absence of roosting bats within both Building 1 and Building 2. No bats were observed emerging from either building during the emergence surveys. No evidence of bats was found during the preliminary roost assessment or the material changes check.</p> <p>At least seven species of bat were recorded on and around the site during the surveys. Foraging activity by common and soprano pipistrelles was recorded on site. Noctule bats are commuting and foraging at height with some regularity.</p>
<i>Impact Assessment</i>	Bats are unlikely to be roosting within building 1 or building 2 and as such, there are no anticipated impacts on roosting bats as a result of the proposed developments.
<i>Recommendations</i>	<p>In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.</p> <p>A low impact lighting strategy should be adopted for the site following guidance from the Bat Conservation Trust: Bats and Artificial Lighting in the UK' Guidance Note GN 08/23 https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/</p>
<i>Enhancements</i>	The installation of two integrated bat boxes or bricks should be incorporated into the proposed development. Boxes should target the species of bats recorded within the vicinity during the survey, such as crevice-dwelling bat species. Recommended bat boxes include: Integrated Eco Bat Box, Crevice, Pro UK Build-In Woodstone Bat Box or similar alternative brand.

Appendix 1a: BERS plan visit 1



Appendix 1b: BERS plan visit 2



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