

<b>CLIENT:</b>	Strata Sterling Barnsley West Ltd
<b>PROJECT:</b>	Barnsley West
<b>SUBJECT:</b>	Aerial tree inspection survey
<b>JOB NO.:</b>	LD10361
<b>DATE OF SITE VISITS:</b>	12 <sup>th</sup> October 2023
<b>PREPARED BY:</b>	Lucia Ruiz Mut - Ecologist
<b>REVIEWED BY</b>	Tosha Allen (Associate Director) and Tim Palmer (Technical Director)

## 1 BACKGROUND

- 1.1.1 Wardell Armstrong (WA) was commissioned by Strata Sterling Barnsley West Ltd to undertake aerial tree inspection surveys in support of a residential and commercial development project, located just west of Barnsley, South Yorkshire. The survey aimed to assess the suitability of three trees due to be removed by the proposals to support bats at several potential roosting features (PRF's).
- 1.1.2 A ground level Preliminary Bat Roost Assessment was undertaken in 2023 by WA, from which trees that require aerial inspection to closer inspect PRF's were identified.
- 1.1.3 The trees surveyed are scheduled to be removed to facilitate the proposed works, which has the potential to negatively impact bats and their roosts, should they be present.
- 1.1.4 This report aims to update the previous assessment in June 2021 as provided in Appendix 7.3 Barnsley West Bat Survey Report and the Environmental Statement (WA, 2023).

## 2 SURVEY METHODS

### 2.1 Identification of Trees with Roost Features

- 2.1.1 Three trees were subject to aerial inspection, namely T4 and T5, which were initially assessed as providing low bat roosting potential (BRP), and T23, which was initially deemed as offering high BRP.

### 2.2 Tree Climbing Approach/Method

- 2.2.1 The trees were first inspected from the ground to identify PRF's such as cracks, splits, holes and loose bark, cavities, etc. To investigate PRFs further, the trees were climbed by two certified tree climber ecologists using rope and harness access methods.

2.2.2 The PRFs were closely inspected and, where possible, a digital endoscope was used to assess in greater detail their suitability for roosting bats and to look for evidence of bats, such as live or dead bats, staining or odour.

### **3 KEY RESULTS**

3.1.1 Table 1 below summarises the results of the climb and inspect surveys:

# Technical Note

**Table 1:** *Climb and Inspect Results*

Label	Note	Photo	BRP
T4			
	<p>Hollow trunk is open to elements, but offers small crevices within of approx. 30cm long, but extended in only enough for 1/2 bats deep.</p>		PRF-I

# Technical Note

	<p>Knot hole on both sides of main branch SW and NE facing, holes connect, creating a 5cm length hollow, room for an individual bat.</p>		PRF-I
	<p>Knot hole on corner of branch, 10cm. in, enough for a couple of bats.</p>		PRF-I

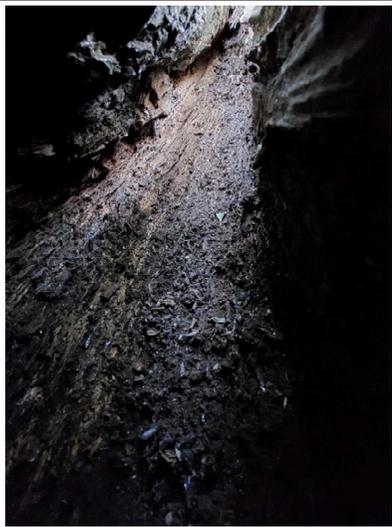
# Technical Note

	<p>Branch split on dead branch from above, rotting wood creating crevices deep enough for a couple of bats x2 N/NE facing on low hanging branches.</p>			<p>PRF-I</p>
<p>T5</p>				
	<p>Knot hole on branch facing SW, superficial hole, not extending internally.</p>			<p>N/A</p>

# Technical Note

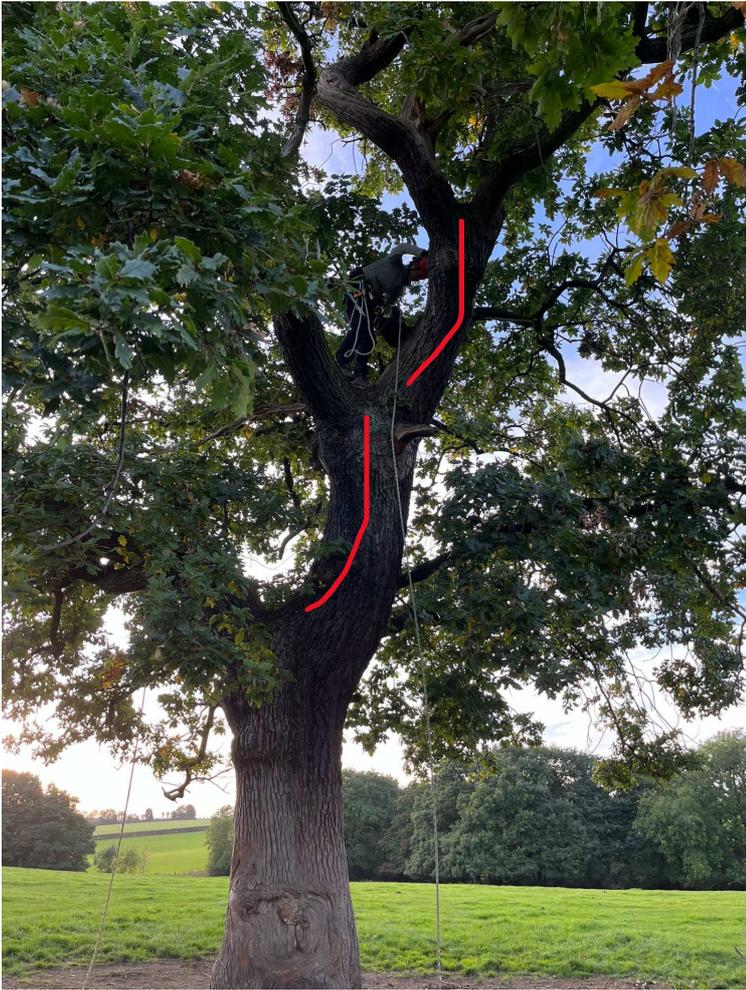
	<p>Callus roll on the side of first branch set out, facing SW. extends c. 20cm currently filled with wood lice</p>			PRF-I
T23				
	<p>Main stem cavity SW facing, 5cm cavity expanding within at the top of the split, likely connecting with upper main branch split. Exposed at the base but the cavity entrance narrows at the top of the PRF providing well sheltered void for 2-3 bats. keeping the same internal void well sheltered, enough room for 10-20 bats.</p>			PRF-I

# Technical Note

	<p>Main stem (cont.) cavity. Exposed at the base but the cavity entrance narrows at the top of the PRF keeping the same internal void well sheltered, enough room for a few bats 10-20.</p>			PRF-M
	<p>Superficial dead wood cavity, exposed</p>			

# Technical Note

	<p>Lower main knot hole, connected to cavity from above, there is a c. 10cm gap which could be used as opportunistic roost.</p>		<p>PRF-I</p>
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**Plate 1:** A picture showing the main cavity in T23.

- 3.1.2 Plate 1 below shows where the main large splits were located on T3 (red lines), with the opening facing the surveyor pictured.

## **4 CONCLUSION**

### **4.1 Results summary**

- 4.1.1 The climb and inspect survey successfully managed to exhaustively search T4, T5 and T23 for sign of use by bats. No bat roosts were identified within any of the trees surveyed at the time of survey.
- 4.1.2 T4 and T5 show bat roosting features with potential to be used by a small number of individuals (PRF-I) during the active season between March to October inclusive.
- 4.1.3 T23 show bat roosting features with potential to be used by a larger number of bats (PRF-M), more specifically, T23 is considered to offer maternity roost potential in the form of a cavity in the main stem of the tree.

### **4.2 Mitigation**

- 4.2.1 It is considered that all of the inspected trees can be felled without the loss of roosts, based on the likely absence of roosting bats and the lack of observed evidence.
- 4.2.2 It is recommended that as a precaution, all trees are inspected again (where possible) immediately in advance of felling. In the event that there is any doubt regarding the potential presence of bats, the trees should be felled according to a 'soft felling' protocol, whereby all of the limbs containing features are lowered to the ground using rope access techniques. Soft felling would not be required where a further full inspection within 24hrs confirmed the absence of bat roosts.