

Site Inspection Note – Updated Bat Roost Assessment

Project Reference: BOW17_1486 Carr Lane, Prescot.	Date of Inspection: 24/07/2024	Surveyor/s: Paula Hollings, Senior Ecologist & Class 1 Bat Licence Holder (reg no. 2015-16053-CLS-CLS) & Lucy Wilde, Ecologist.
Weather Conditions: Sunny, still (Beaufort scale 0), 0% cloud, 19°C.		
Background context and Relevant Legislation: Bowland Ecology Ltd was commissioned by United Living to undertake an Updated Ground-level Bat Roost Assessment of Trees at Carr Lane, Prescot. The trees on site were assessed in July 2023 by Bowland Ecology as part of an Ecological Assessment for the site. This assessment identified three trees with moderate to high potential roosting value for roosting bats (T3, T4, T5 – see appended plan), and one tree with low bat roost potential (T7 – see appended plan). At the time of writing the Ecological Assessment, Trees T3, T4 and T5 were due to be retained and protected as part of site development proposals. However, damage was caused to the trees early Spring 2024, during excavation work to trace a sewer and locate main shafts. No ecology advice was sought prior to disturbance, and thus no surveys were undertaken to establish the presence or likely absence of bat roosts within the trees. The purpose of this update survey is to assess any changes to the bat roosting resource on site and prescribe retrospective compensatory measures. An updated check of all trees on site was also undertaken. This approach has been agreed with the council by the client as a pragmatic way forwards. Bats are a European protected species and under the Conservation of Habitats and Species Regulations 2017 Reg 41 and under the Wildlife and Countryside Act 1981 (as amended) it is an offence to: - Deliberately capture, injure or kill a bat; - Deliberate disturbance of bats; - Damage or destroy a breeding site or resting place used by a bat. The protection of bat roosts is considered to apply regardless of whether bats are present. - Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.		
Methodology A site inspection was undertaken on 24.07.24 by Bowland Ecology to assess the situation and complete an updated Bat Roost Assessment of all trees on site. A visual assessment of trees was undertaken to determine the potential presence of any roosts and Potential Roost Features (PRFs). Where possible, inspections of potential roosting features were made from ground level with close-focussing binoculars and a high-power torch. Any accessible PRFs were searched for bat field signs which may indicate a roost, such as bats, bat droppings, urine stains, bat feeding remains (moth wings, insect cases), oil staining, scratch marks and smoothing of surfaces. Based on the PRFs present, the trees within the survey area were assessed using the suitability classes detailed within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), as bullet pointed below. Any changes since July 2023 were noted. Bat survey guidelines have been updated since July 2023, however 2016 guidance was used in this instance for consistency and to allow for direct comparisons. • Negligible – Negligible habitat features likely to be used by roosting bats. • Low – A tree of sufficient size and age to contain PRFs but none seen from the ground, or features seen with only very limited roosting potential. • Moderate – A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.		

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- High – A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Results

Tree T3

Mature crack willow.

This tree has been significantly damaged by the 2024 excavation work. Two limbs have been removed, the larger of which possessed several linear cracks, up to 4cm in width, in the form of splits, transverse snaps, hazard beams and frost cracks. These limbs have been placed on the ground next to the tree. Based on a close inspection of accessible potential roosting features on the felled limbs, it was considered that these features could have potentially supported low numbers of bats. Based on the size of PRFs present, it is unlikely that the limbs had the potential to support a maternity roost. No evidence of previous bat usage was recorded, however the stems have been on the ground for several weeks, with many features upward facing and exposed to rain which may have removed any field evidence.

Aside from the removed horizontal limbs, the upright section of this tree has been retained as standing and continues to possess a number of potential roosting features for roosting bats such as longitudinal gaps into stem cavities, and deep bark fissures. Owing to height and accessibility, these cannot be subject to internal inspections from ground level, however it was noted that at least one gap penetrated into a larger internal cavity within the main stem.

The removal of a main limb, and surrounding scrub vegetation has resulted in a less sheltered environment for the tree and retained PRFs.

It is also of note that ground close to the tree base has been subject to excavation work, potentially causing root damage to the tree.

2023 potential roosting value: **High**

2024 potential roosting value: **High**, however with a reduced number of PRFs in a more exposed location/environment.

Photo 1: T3 in 2023, showing horizontal stems extending out to right which have been removed.



Photo 2: T3 in 2024



Photo 3: Example of PRF within removed limb



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Tree T4

Mature, twin-stemmed crack willow.

Numerous failed and snapped branches, and longitudinal cracks in back and heartwood.

No direct damage to PRFs from excavation work.

The removal of surrounding scrub vegetation has resulted in a less sheltered environment for the tree and retained PRFs.

Ground close to the tree base has been subject to excavation work, potentially causing root damage.

2023 potential roosting value: **Moderate**

2024 potential roosting value: **Moderate**

Photo 4: T4 in 2024



Tree T5

Mature, twin-stemmed crack willow.

Rotten heartwood exposed for full height of tree on northern aspect, and in places heartwood is completely absent. PRFs comprise gaps behind partially occluded bark, splits in heartwood and deep fissures in bark.

No direct damage to PRFs from excavation work.

The removal of surrounding scrub vegetation has resulted in a less sheltered environment for the tree and retained PRFs.

Ground close to the tree base has been subject to excavation

2023 potential roosting value: **Moderate**

2024 potential roosting value: **Moderate**

Photo 5: T5 (2024)



Tree T7

Mature hybrid poplar, located away from areas of damage from excavation works. Stem forks at approximately 3m height. A tear out feature is present on the north-western aspect of the tree at approximately 5 m high. This appears upward facing with shards of heartwood still present within, implying an absence of an open internal cavity. A smaller second tear out was noted however this appears exposed to the elements and is wet.

No change or damage has occurred to this tree since July 2023.

2023 potential roosting value: **Low**

2024 potential roosting value: **Low**

Photo 6: T7 (2024)



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<u>Tree G15a</u> Mature poplar, located away from areas of damage from excavation works. A main limb has snapped off the tree – potentially as a result of fire damage based on bark colouration. No gaps were noted behind partially occluded bark, however direct access to the feature was not possible. No damage has occurred to this tree from the 2024 excavation works. 2023 potential roosting value: Negligible 2024 potential roosting value: Low	Photo 7: Tree G15a (2024) 
<u>All other trees</u> All other trees were concluded to possess negligible potential value for roosting bats, as per 2023. Some damage from machinery was noted on smaller limbs and trees, however no sheltered crevices or cavities were noted to have been created as a result of this.	-
Actions required: <u>Trees T3, T4 & T5</u> • Despite damage, the trees with moderate/high bat roost potential should be retained in situ if possible, to form part of the proposed woodland belt along the western site boundary. The AIA recommends Tree T3 for removal, however also states that retention may be possible. • The open, disturbed area adjacent to Trees T3, T4 and T5 created by excavation work should be planted with native trees and shrub to restore sheltered conditions within the wooded belt. • The lighting strategy of the proposed development should ensure this woodland belt remains unlit by artificial light, to prevent loss or fragmentation of foraging / commuting habitat for bats. • As compensation for the loss of potential roosting features on Tree T3, bat boxes should be erected on suitable trees throughout the woodland: ○ Six boxes are suggested as compensation, based on the nature and number of PRFs that have been lost within the limb that was removed. ○ Suggested locations of boxes are plotted on the appended plan, close to T3 with the aim of creating roosting habitat within the same locality from which it has been lost. ○ The woodland contains trees that are large enough to support bat boxes and possess direct connectivity with adjacent park and lake habitats with high potential value foraging habitat. ○ Boxes will be installed on three trees which are not at high risk of any tree diseases, do not overhang any proposed roads, will not be affected by artificial light spill, and with flightlines that are not cluttered by epicormic growth or other adjacent features. The exact positions will be decided on	

the day of installation by the project ecologist, taking into account closer inspections to confirm suitability (e.g. flight lines).

- The boxes will be installed at a height of between 3 to 6 metres, facing a variety of aspects, to provide bats with a range of positions and temperatures to choose from.
 - Boxes will be securely attached to trees using galvanized or stainless-steel screws or nails so as not to cause damage.
 - The Schwegler 1FF is suggested as a general-purpose box, with potential to be used by all crevice-inhabiting bat species, including Pipistrelle bats which are known to forage within and around the site. Since the Schwegler 1FF is open at the bottom allowing droppings to fall out, it does not need cleaning.
 - The installation of these boxes should be undertaken as soon as possible, once it can be guaranteed that the woodland belt will not experience any further future disturbance. e.g. a box must not be erected close to an area of proposed pruning/tree removal, until after said works have taken place.
 - **Note that once a bat box is erected this cannot be removed or disturbed without being first inspected by a suitably licenced ecologist or accredited agent.**
- The felled tree limbs should be left in situ as a deadwood resource for invertebrates.
 - If Trees T3, T4 and/or T5 must be removed or pruned for safety reasons, further survey work will be required prior to any disturbance, to establish the current presence or likely absence of bat roosts. This further survey work will involve tree climbing inspections of the trees, where safe to do so, or two to three dusk/dawn bat surveys between May and August, in line with current best practice guidance. If a bat roost is identified by this survey work, a licence will be required for any removal/pruning work to ensure compliance with wildlife legislation and planning policy.

Trees T7 & G15a

- If either of the trees with low bat roost potential are due to be removed or disturbed, these should be subject to an inspection for roosting bats immediately prior to any felling/pruning works. This would likely take the form of a tree climbing survey to allow for the close inspection of features. If tree-climbing is not possible (e.g. for safety reasons), the tree should either be subject to a dusk/dawn bat survey, or be soft-felled under the supervision of a suitably experienced ecologist. Soft felling would involve safely lowering any sections of the tree containing potential roosting features to ground after removal, which must be maintained in an upright position until an ecologist is satisfied no bats are present within any suitable roosting features.

Enhancement

- The proposed residential buildings on site present further opportunities for bat box installation. The client has agreed to install nine integrated bat boxes on houses adjacent to linear vegetated boundaries, as an enhancement measure. This equates roughly to 10% of all proposed dwellings. Boxes should be sited as high as possible in a sheltered position. Integrated bat boxes (e.g. <https://www.nhbs.com/ibstock-enclosed-bat-box-c> or similar) are designed to be built into a new build and provide a permanent roost space for a range of species. They can be built directly into the masonry where they will be held in place by the surrounding mortar. No additional fixings are required and, once in position, the boxes are self cleaning. Any bat droppings will fall out of the opening at the base.

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References:

Bowland Ecology (2023). Carr Lane, Prescot – Ecological Assessment. Report ref. 17.1486 V1

Bowland Tree Consultancy (2024) Arboricultural Impact Assessment - Former United Utilities site, Carr Lane, Prescot, Merseyside, L34 1AX. Report ref: BTC2750 Version 2.

Collins, J (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

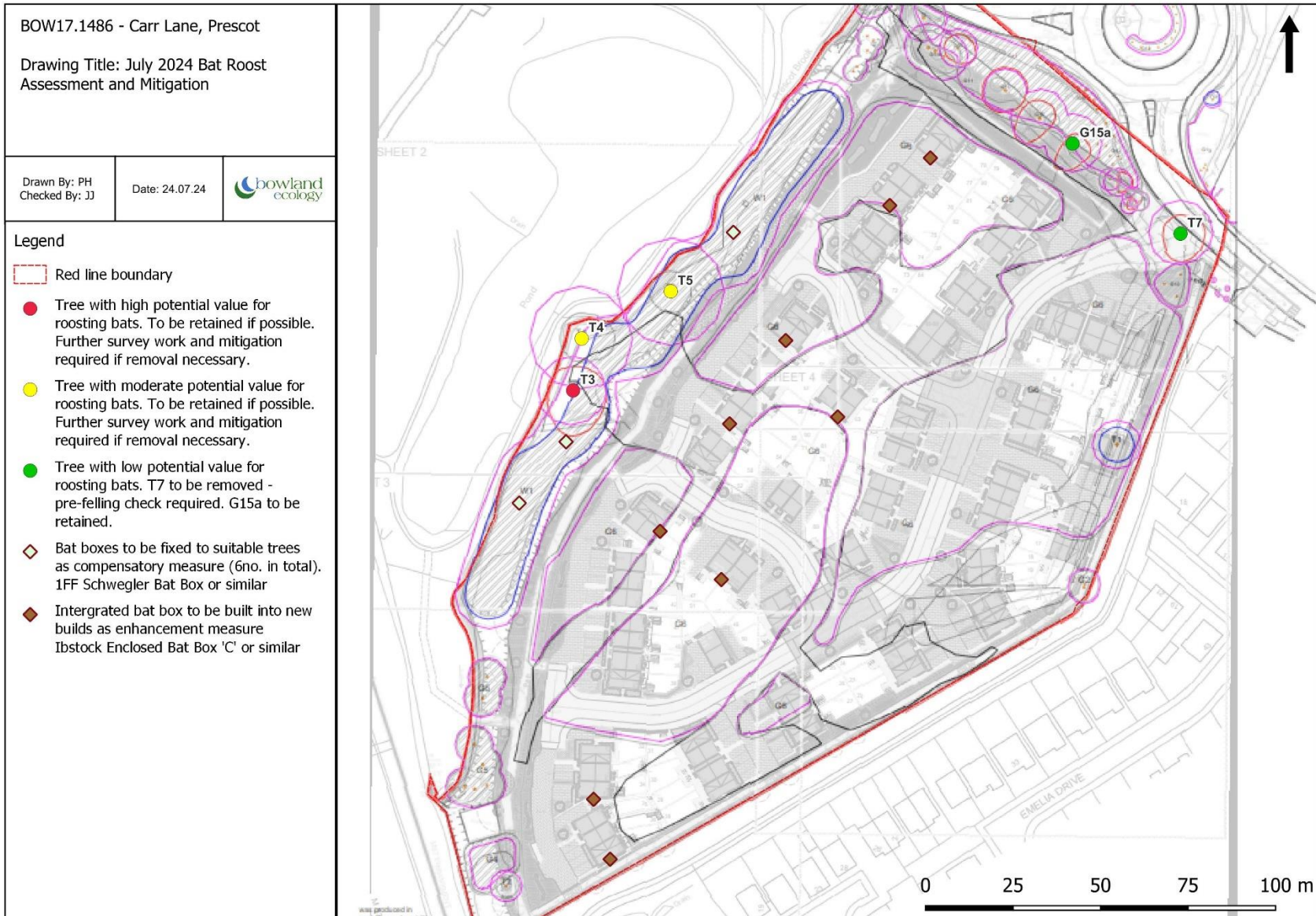
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