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12195: CARPENDERS PARK, THREE RIVERS

BRIEFING NOTE: BAT TREE ASSESSMENT

Introduction

1. Ecology Solutions was commissioned in March 2026 by Burlington Developments London Limited to undertake a Ground Level Tree Assessment (GLTA) and subsequent aerial tree inspection survey of PRF-M trees at Carpenders Park, Three Rivers, to check for signs of roosting bats.

2. The surveys were commissioned in response to comments received by Herts Ecology on 26 February 2026. These comments highlight the need for an additional survey of trees within the site that have been identified as PRF-M. The relevant comments are provided below:

   Because NBW surveys (Aug–Oct) fall outside peak maternity detection periods, they cannot be used to rule out maternity use in PRF-M trees and additional surveys are therefore mandatory, even if the trees are retained.

   PRF-M features:

   - **Further survey required to assess potential maternity use, either as a Bat Aerial Inspection and/or Emergence Survey Condition of the trees or early season NWS.**
   - **Mitigation/licensing may be needed depending on findings.**
   - **Lighting controls essential to avoid roost disturbance.**

   PRF-I features:

   - **No further survey required under current guidance.**
   - **Compensation (e.g., bat boxes) is mandatory for any lost trees, to maintain ecological function.**
   - **Lighting strategy must still protect potential roosting and commuting habitat.**

3. Detailed inspections of the three PRF-M trees within the site have now been completed to determine whether roosting bats are present within the identified Potential Roosting Features (PRFs).

4. As such, the purpose of this note is to set out the results of the updated survey work and set out any necessary mitigation measures or recommendations and ensure that Herts Ecology have sufficient information to remove the objection detailed in their response.

5. A summary email detailing the findings of the updated surveys was sent to Herts Ecology on 10 March 2026, and the results were subsequently presented during a virtual meeting with Herts Ecology on 11 March 2026. The email stated that two PRF-M trees (T1 and T2) would be downgraded to PRF-I, and that one PRF-I tree (T4) would be upgraded to PRF-M. However, following clarification with the surveyors on 11 March 2026 after the meeting, it was confirmed that the only change to tree suitability is for Tree T1, which should be downgraded from PRF-M to PRF-I. All other trees retain their originally assigned status. This discrepancy arose from the mislabelling of tree features during the survey, which has since been corrected in this note. These amendments do not alter the conclusions presented in the aforementioned email or during the virtual meeting.

Background

Potential Roosting Feature – Maternity

6. The three trees surveyed are located along the northern and eastern site boundaries (see Figure 1 below). These trees are classified as PRF-M, meaning they have PRFs which could support a high abundance of bats and / or a maternity roost. They are named T1, T2 and T3 for the purposes of this note. These trees are described within the Ecological Assessment (12195.EcoA.vf4) at paragraphs 4.3.4 – 4.3.6 and illustrated on Plan ECO2 within said report. Within the BNG Report (12195.BNGReport.vf3), they are Trees T2, T10 and T44 respectively.

7. The PRF-M trees are located along the site boundaries and are largely separated from the core development area. Tree T1 on the northwestern site boundary (Ash *Fraxinus excelsior*) is located approximately 30m from the proposed access road and main development area, whilst Tree T2 along the northeast site boundary (Oak *Quercus robur*) is approximately 50m from the main development footprint. The PRF-M tree (T3) on the eastern boundary (also an Oak) is located approximately 12m from the core of the proposed development; however, this feature is situated within a boundary corridor of scrub that will be retained and protected. Regardless of whether bats are confirmed to be roosting within these trees, they will remain unaffected by the proposed development as they will not be subject to felling, arboricultural works and / or lighting disturbance. They will be retained within existing boundary habitats.

Potential Roosting Feature – Individual

8. Twenty-nine trees were also identified as PRF-I in 2024, meaning they are only suitable for individual bats or a very small number of bats. Features identified include small knot holes, woodpecker holes, Ivy *Hedera helix* coverage, split branches, and deadwood. An additional tree was classified as PRF-I following the updated GLTA on 4 March 2026 (see Figure 1). It is named T5 for the purposes of this note; the tree is accounted for within the underlying scrub habitat in the Ecological Assessment and BNG Report.

9. Tree T4 (again, named for the purposes of this note) and Tree T5 were further inspected due to their close proximity to identified PRF-M trees.

Figure 1. Location of identified PRF-M and PRF-I trees that were surveyed via aerial tree inspection, on 9 March 2026, along the northern and eastern boundaries of the site.

Legislation

10. All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). These include provisions making it an offence to:

- Deliberately kill, injure or take (capture) bats;
- Deliberately disturb bats in such a way as to: -
  i. be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
  ii. affect significantly the local distribution or abundance of the species to which they belong;
- Damage or destroy any breeding or resting place used by bats;
- Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

11. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that were not the primary purpose of the act.

12. The offence of damaging or destroying a breeding site or resting place (which can be interpreted as making it worse for the bat) is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

Survey Methodology

Ground Level Tree Assessment

13. A GLTA was initially completed within the site in July 2024 with an updated survey undertaken in March 2026. Features (or PRFs) typically favoured by bats, or evidence of past use by bats, were searched for, including:

- Obvious holes, e.g. rot holes and old woodpecker holes;
- Dark staining on the tree, below a hole;
- Tiny scratch marks around a hole from bats' claws;
- Cavities, splits and / or loose bark from broken or fallen branches, lightning strikes etc.; and
- Very dense covering of mature Ivy over the trunk.

14. Using professional judgement, each tree was then classified as either PRF-I or PRF-M, based on the number and type of PRFs identified, whilst also accounting for suitable surrounding habitat.

Aerial Tree Inspection Survey

15. An aerial inspection survey was undertaken during daylight hours of the three PRF-M trees (T1, T2 and T3) and two PRF-I trees (T4 and T5) located nearby. This allowed for a detailed and effective assessment of the PRFs identified during the GLTAs.

16. This involved the use of a harness, rope and ladders to carry out an internal inspection with the use of torches and / or endoscopes and pole cameras, to look for signs of bat activity such as live or dead bats and their droppings. The survey was completed by two certified tree climbers, accredited under a bat licence holder.

17. All surveys were undertaken with regard to best practice guidelines issued by CIEEM (2023)[1], the Joint Nature Conservation Committee (2012)[2] and the Bat Conservation Trust (2023)[3].

[1] Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats.* Chartered Institute of Ecology and Environmental Management (CIEEM).
[2] Mitchell-Jones, A.J. and McLeish, A.P. (Eds.) (2012). *Bat Workers' Manual*. 4th edition. Joint Nature Conservation Committee (JNCC). Peterborough.
[3] Collins, J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th Edition. The Bat Conservation Trust, London.

Survey Results

Ground Level Tree Assessment

18. All trees retain their PRF-I and PRF-M status as per the 2024 GLTA. An additional tree (T5) was classified as PRF-I during the GLTA on 4 March 2026 (see Figure 1 above).

Aerial Tree Inspection Survey

19. The results of the aerial inspection survey are shown in Table 1, and a description of each tree surveyed detailed below.

Table 1. Location of PRFs surveyed during aerial inspection survey.

Tree Ref:	Initial Suitability	Revised Suitability	PRF Ref:	PRF Description	Comments
T1	PRF-M	PRF-I	1	Southeast knot hole	Open and exposed. No evidence of bats found
			2	North rot hole, wound and fluting (2.5m high)	Extended 15cm into trunk. No evidence of bats found
			3	East broken limb	Open and exposed. No evidence of bats found
T2	PRF-M	PRF-M	1	Woodpecker holes on north and south elevations (including staining)	No evidence of bats found
			2	North and east broken limb	No evidence of bats found
T3	PRF-M	PRF-M	1	Southwest fluting / linear decay features on dead/dying limbs	No evidence of bats found
			2	South woodpecker hole(s)	No evidence of bats found but Grey Squirrel inside
			3	Northwest wound extending to hollow/cavity, fissure and broken limb	Exposed and lacking suitable crevice features. No evidence of bats found
			4	North hole / cavity (1.5m from base of tree)	No evidence of bats found
T4	PRF-I	PRF-I	1	North woodpecker hole	No evidence of bats found
			2	North/south cavity	Cavity extends up length of tree. No evidence of bats found
			3	North lifted bark	No evidence of bats found
T5	N/A	PRF-I	1	Northwest cavity 2m high	Extends to rot hole higher up. No evidence of bats found

20. **Tree T1:** A rot hole is present on the northern aspect, approximately 2.5 m above ground level. The feature was inspected using an endoscope and extended approximately 15 cm into the trunk. No evidence of bats was identified.

21. Higher features (a knot hole and broken limb) were inspected using a pole camera due to difficulty accessing the tree with ropes, partly due to unstable limbs and the entire tree being surrounded by Blackthorn scrub. A thorough and robust assessment of the tree was nonetheless completed. These higher PRFs were open and exposed, providing limited suitability for bat roosting, due to them being unable to maintain stable temperatures and dry conditions. Based on these findings, Tree T1 was downgraded to PRF-I suitability (see Plan ECO2 appended to this note).

22. **Tree T2:** Several woodpecker holes are located on the north and south elevations, including one with staining beneath. An endoscope revealed no signs of roosting bats. No evidence of bats was found within the broken limbs.

23. **Tree T3:** A large basal hole / cavity was present with two entrance points on the northern elevation. No evidence of roosting bats was identified. A cavity on the northwest elevation extends into a hollow / cavity and ultimately becomes a broken limb higher up. This feature was assessed as too exposed and lacked suitable crevice features to provide bat roosting potential. Linear decay features were also present alongside several dead or dying stems. These were inspected and showed no evidence of bats. An old woodpecker hole on the southern elevation was subject to the endoscope, with no evidence of bats recorded. A Grey Squirrel *Sciurus carolinensis* was observed occupying the cavity, possibly precluding use by bats.

24. **Tree T4:** A large cavity on the southern and northern elevations extends vertically within the trunk. The structure of the cavity was assessed as unsuitable for bat roosting due to the lack of suitable crevices and internal features. Areas of lifted bark and woodpecker holes were also present on the northern elevation and were inspected using an endoscope. No evidence of bats was recorded in any PRFs.

25. **Tree T5:** This tree contained a cavity at approximately 2m high on the northwest elevation. The cavity extends into a rot hole located higher up. No signs of roosting bats were evident.

Recommendations

26. The PRF-M trees (and additional PRF-I trees surveyed) are located along the site boundaries and are largely separated from the core development area. Tree T1 is located approximately 30m from the proposed access road and main development area, whilst Tree T2 (and adjacent PRF-I tree – T4) is approximately 50m from the main development footprint. Tree T3 (and adjacent PRF-I tree – T5) is located approximately 12m from the core of the proposed development; however, this feature is situated within a boundary corridor of scrub that will be retained and protected. All of these trees will remain unaffected by the proposed development as they will not be subject to felling, arboricultural works or lighting. They will be retained within existing boundary habitat.

27. Following the survey work undertaken on the 9 March 2026, Tree T1 in the northwest of the site was downgraded to PRF-I, due to the closer inspection revealing the PRFs as sub-optimal / unsuitable for bats. Trees T2 and T3 remain as PRF-M and Trees T4 and T5 remain as PRF-I.

28. External lighting within the proposed development will be designed in accordance with current guidance from the Institution of Lighting Professionals and Bat Conservation Trust (GN08 Bats and Artificial Lighting). Lighting will remain minimal along site boundaries and known commuting corridors so that illumination levels do not significantly increase within these areas. This will ensure that the retained trees and boundary vegetation continue to function as suitable commuting and foraging routes for bats, in addition to providing potential roosting sites. In addition, existing scrub belts that currently fragment the grassland fields will be retained and enhanced. The establishment of a central footpath / clearance corridor within the scrub will also create additional foraging corridors, which is likely to provide further opportunities for bats and maintain connectivity throughout the site.

29. Should any PRF-M or PRF-I trees be removed and / or disturbed in the future, that are not currently scheduled for felling, arboricultural works and / or subject to lighting, they will be further surveyed (aerial tree inspection or dusk emergence survey), as per the above trees. Suitable compensation will be provided for any trees lost. If found to support a bat roost, the destruction or disturbance of the roost would only occur following appropriate licences have been obtained. Compensation would be provided via the provision of alternative roost sites.

30. A pre-commencement survey of PRF-M and / or PRF-I trees will be undertaken if future works have the potential to adversely impact these features. Further measures during the construction phase will be implemented to reduce noise and vibration, avoiding disturbance to these trees. Such measures will be detailed in a forthcoming Construction Environmental Management Plan (CEMP).

Summary

31. No evidence of bats was identified during the aerial inspection of the three PRF-M trees (or the two PRF-I trees surveyed). Following this detailed assessment, one tree previously categorised as PRF-M has been downgraded to PRF-I.

32. Conclusions within the Ecological Assessment (report ref: 12195.EcoA.vf4) as they relate to bats are therefore considered acceptable / valid. No further surveys are required to inform the outline planning application as all the trees are to be retained, with a lighting strategy and appropriate mitigation measures to be applied during the construction phase to be secured by planning condition.

Plans:
Plan ECO2: Ecological Features

This note has been prepared by the following:

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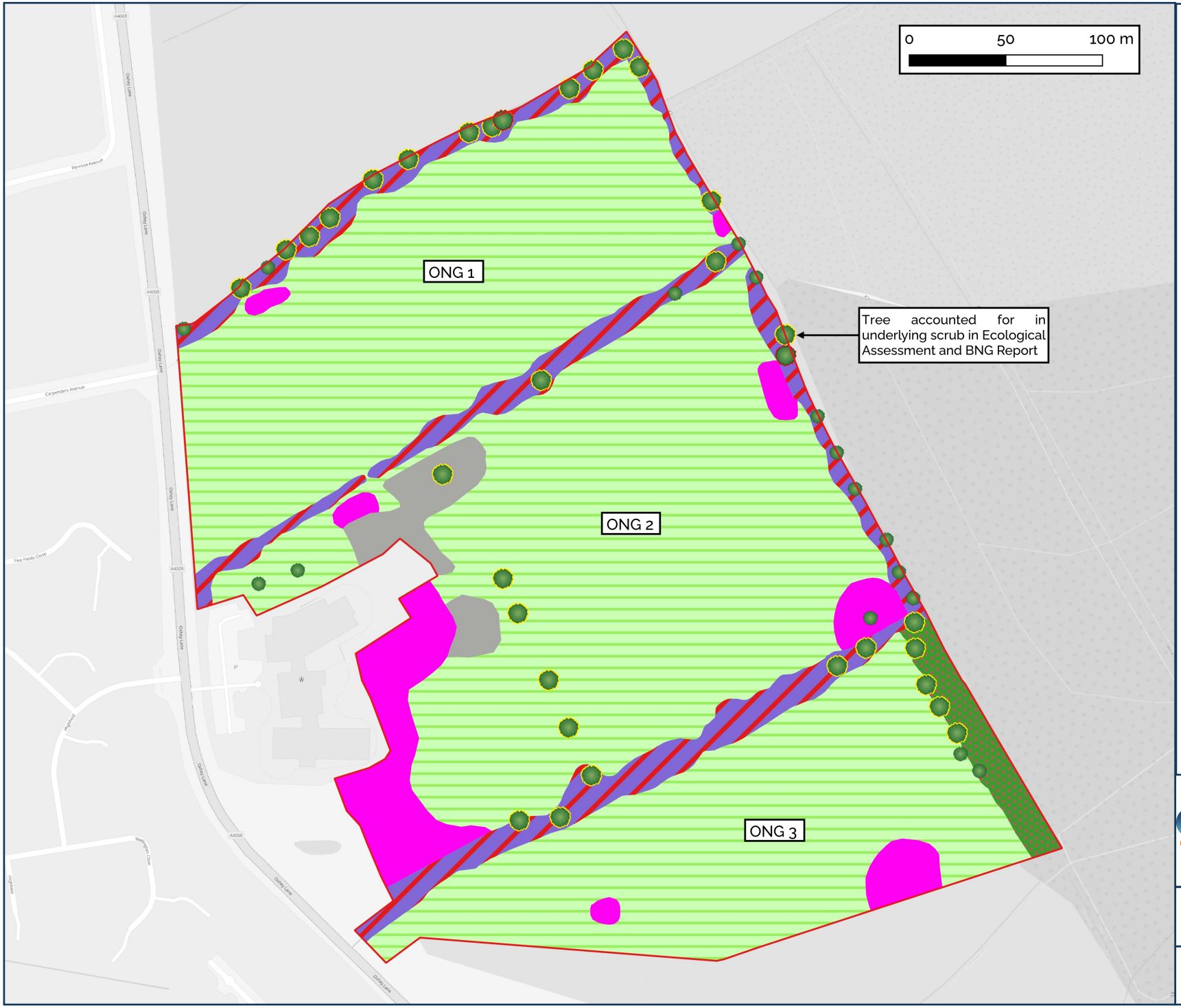

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12195: CARPENDERS PARK, THREE RIVERS

PLAN ECO2: ECOLOGICAL FEATURES

Rev: C

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