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Working for the Client - Working with Wildlife

Rhyd Y Grug School, Aberfan, Merthyr Tydfil, CF48 4NT

AEUK 16114

Ground Level Tree Assessment

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12th December 2025



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Project: Rhyd Y Grug School, Merthyr Tydfil GLTA

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Introduction

The site, Rhyd Y Grug School- Aberfan Merthyr Tydfil CF48 4NT national grid reference: ST073996 (what3words kilts.crop.desktops) (hereafter referred to as the “site”) has been assessed for tree roosting bats based on the assessment criteria within the Bat survey guidelines 2023 and from undertaking a visual daytime inspection on 2nd December 2025. The total site size is approximately 4.494ha (1.819 acres) of school playing fields and standard trees, gardens with paving and school buildings and wooden out buildings.

The site is located in the village of Aberfan, Merthyr Tydfil and is set on the edge of a residential area surrounded on the north and west by residential properties and the south and east backs onto the wooded River Taff valley. The habitat is rural fringe and considered moderate/high quality for bat species but the school is well covered in municipal lighting reducing the opportunities for bats.

Proposed works

The project comprises the delivery of a new school block extension and internal works to the existing school – but no works proposed to the roof. Trees will be retained on site during the proposed works.

Objectives

The objectives of the ecological assessment were to:

- Identify if bats are roosting on site or have potential to roost/breed on site;
- Identify the presence or potential presence of bats a protected species whose disturbance may require consent under The Conservation of Habitats and Species Regulations, 2010 or The Environment (Wales) Act (2016);
- Identify the need for further targeted surveys on site;
- Identify any bat species which may require special mitigation during the works; and
- Identify any areas that may require special protection during the development.

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Map 1 showing the approximate ownership plot

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Figure 1 Existing site plan

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Figure 2 proposed works

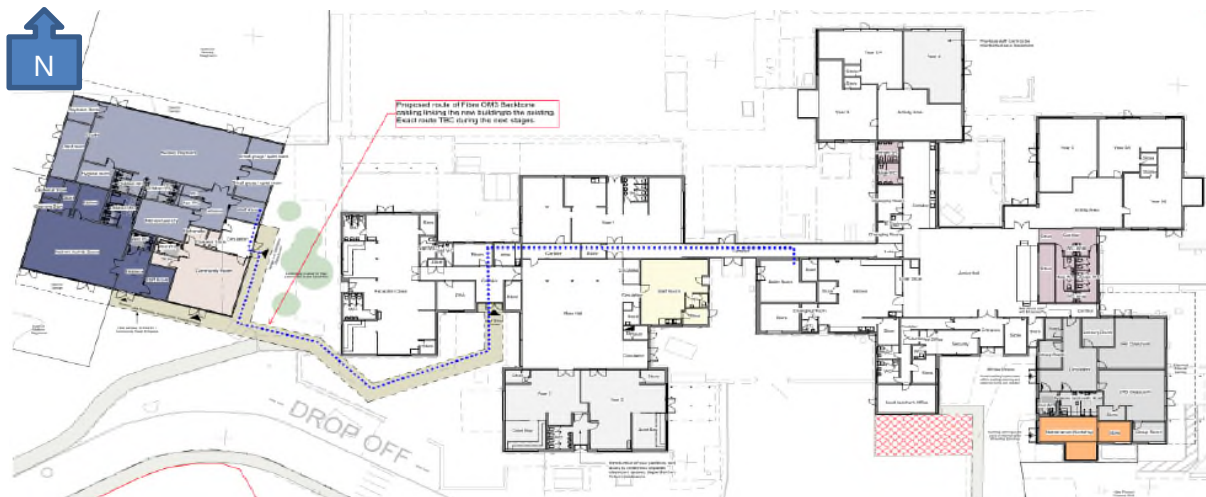


Figure 3 whole school with works to the west

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Figure 4 showing the trees subject to the survey in the south of the site which will be retained

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Methodology

Bats

Physical external/internal site inspection of the trees and buildings was undertaken by the lead surveyor and an assistant.

The surveyor conducted this inspection using the equipment described below to assist the inspection, and approximately a half day of search effort was expended. A 3.8m telescopic ladder was used to gain access to various points and a Fenix TK11 Tac Police LED (1000 Lumens) and Fenix RC40 (3500 lumens) searchlight fitted with a red filter was used to search dark areas for signs of bats. A Pro Vision 2100 Endoscope was utilised to assist inspection of internal spaces. Pentax 0.5m Papilio (8.5x21) close focusing binoculars were used to view areas inaccessible on foot. A telescopic inspection mirror was used to look on top of structures for evidence of bats.

The physical search includes a search for live animals and a search for other signs that give an indication of past or present occupancy as outlined below.

In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated or at least be indicative of species type), signs of staining, urine splashing, characteristic odours, and accumulations of discarded prey remains.

The survey consisted of a visual assessment of the trees, noting potentially important features such as rot holes, cracks, crevices and loose bark. The survey was undertaken during an optimum time period as stipulated in Bat Conservation Trust (BCT) bat surveys – good practice guidelines 2023.

Each tree of suitable size (approx. >20cm d.b.h) was examined from the ground, using binoculars and endoscope where necessary, and a recording sheet used to identify bat roost potential. Likely roost features include wounds, nest holes, loose bark, splits, rot holes and ivy (may provide cover in its own right or mask other features suitable for bats) and these were recorded for each tree. See tables below.

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Table 1 Features used by bats for roosting and shelter. (Adapted from “Bats & Arboriculture” training course (BCT/Lantra Awards, 2005))

Features of trees used as bat roosts	Signs indicating possible use by bats
Natural holes	Tiny scratches around entry point
Woodpecker holes	Staining around entry point
Cracks/splits in major limbs	Bat droppings in / around / below entrance
Loose bark	Audible squeaking at dusk or in warm weather
Behind ivy	Flies around entry point
Hollows/cavities	Distinctive smell of bats
Within dense epicormic growth	
Bird and bat boxes	

Assessment of the trees for Bat Roosting Potential

The site was visited during the daytime on 2nd December 2025 during which the assessment of the structure and trees for bat potential was undertaken.

The surveyors conducted a preliminary visual inspection. This generally consists of two parts carried out at different times of year tree/structure inspection and emergence survey.

The survey included the following

1. Use close focusing binoculars to inspect tree(s) from the ground to the canopy
2. Inspection all aspects of the tree(s) or structure
3. Look for features indicative of bat roosts (see Table 1 above)
4. As this was a site with mature trees the survey duration is estimated at 1 day for a detailed inspection of trees on site.
5. Use of a high powered torch to highlight cavities and shady areas of the tree branch structure.
6. Listen for bats making audible social calls from roosts in trees.

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The second part of an emergence survey (if required) should be carried out during daytime/dusk/dawn in the summer when general emergence, re-entry and activity surveys are most productive.

Tree and structure survey categories

(Adapted from BCT Bat Survey for Professional Ecologists, Good practice guidelines 4th edition guidance 2023)

Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement

Table 2 Tree categorisation for bats

Suitability	Description
None	Either no PRFs in the tree or highly unlikely to be any
FAR (Further Assessment Required)	Further assessment required to establish if PRFs are present in a tree
PRF (Preliminary Roost Feature)	A tree with at least one PRF is present

Ground Level Tree Assessment (GLTA)

The assessment of suitability will be further refined for roosts during a Ground Level Tree Assessment (GLTA). A GLTA is a detailed inspection of the exterior of the tree from the ground to look for features that bats could use for roosting (PRFs). The aim of this survey is to determine the available roosting resource and the need for further survey and/or mitigation. This survey should be carried out before any PRF inspection surveys.

The GLTA surveys are best carried out from December to March when the leaves have fallen from the trees but can be carried out in summer months when bats can be audible in the trees. As a guide (and depending on the size of the trees) it may be possible for a single ecologist to inspect approximately 20 trees per day for mature and veteran trees or double the number for trees which are smaller and less roosting potential.

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Table 3 PRF types that can be exploited by bats and how they form

PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
• Woodpecker holes • Squirrel holes • Knot holes • Pruning cuts • Tear outs • Wounds • Cankers • Compression • Forks • Butt rots	• Lightning strikes • Hazard beams • Subsidence • Cracks • Shearing cracks • Transverse snaps • Welds • Lifting bark • Desiccation • Fissures • Frost cracks	• Fluting • Ivy

Table 4 Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats to be applied using professional judgement

Suitability	Description
Potential Roost Feature- Individual (PRF-I)	PRF is only suitable for individual bats or very small numbers of bats either due to size [of the feature] or lack of suitable surrounding habitat
Potential Roost Feature- Multiple (PRF-M)	PRF is suitable [in size] for multiple bats and may therefore be used by a maternity colony

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Bat survey timings and survey visits structures and trees

Table 5 recommended timings for presence/absence surveys to give confidence in a negative result for structures and also recommended for trees where other methods such as PRF inspection are not possible.

Low roost suitability or PRF -I	Moderate roost suitability	High roost suitability or PRF-M
May to August (structures) No further surveys required (Trees)	May to September with at least one of the surveys between May and August	May to September with at least two of the surveys between May and August

Table 6 recommended **minimum** number of survey visit for presence/absence surveys to give confidence in a negative result for structures and also recommended for trees but unlikely to give confidence in a negative result

Low roost suitability or PRF -I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey (structures) No further surveys required (Trees)	Two separate dusk emergence survey visits	Three separate dusk emergence survey visits

NOTE: Multiple surveys visits should be spread out approximately three weeks apart.

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Environmental variables

Table 7 Environmental variables

	Temp start	Temp end	Wind speed max	Wind speed ave	Cloud cover start	Cloud cover end	Relative Humidity	Precipitation
2 nd December 2025	9.1°C	9.4°C	1.4mph	0.4mph	8/8 oktas	7/8 oktas	94.0%	None

The GLTA inspection survey was carried out on 2nd December 2025 in suitable weather conditions in accordance with Bat Conservation Trust (BCT) survey guidelines for tree inspections.

Limitations

The survey was carried out at an optimal time of year for a tree assessment survey according to the Bat Conservation Trust Bat Survey good practice guidelines 2023. While no biological survey can guarantee that all cues and signs of protected or notable species will be recorded, Alder Ecology UK Ltd feel confident that all key indicators for bats were noted during this survey window. The survey at Rhyd Y Grug School- Aberfan Merthyr Tydfil CF48 4NT, was not constrained as full access was available at the site for the tree inspection survey. The tree inspection was undertaken from the ground and aided with the use of a drone.

Personnel

The survey and assessment on site was carried out and lead by Roger Martindale BA(Hons), MSc, CEnv, MCIEEM Principal Ecologist and Director of Alder Ecology UK Ltd who is a qualified and experienced professional Ecologist with over 25 years' experience, Chartered Environmentalist and full member of the Institute of Ecology and Environmental Management (CIEEM). Roger is an approved trainer for Bat Conservation Trust, Natural England and CIEEM and has recently ran the new Natural England Low Impact Bat Class licence training and a member of the technical review panel of the recently published 4th edition of the Bat survey guidelines. He currently holds a Natural Resources Wales survey licence to legally undertake such assessments on site (licence number SO93631/1).

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Photographic plates



Plate 1 Areas subject to GLTA being surveyed Rhyd Y Grug School looking north



Plate 2 trees under assessment and proposed impact zone in red

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Plate 3 showing the role of the on-site trees with landscape linkage, site boundary marked in yellow



Plate 4 showing recorded bat movements through the landscape from emergence/activity surveys

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Plate 5 showing trees subject to GLTA and impact area



Plate 6 Showing tree group 1 (G1) with one tree with two PRFs arrowed

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Plate 7 same tree as in plate 6 with Ivy covering



Plate 8 same tree as in plate 6 and 7 showing a rot hole

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Plate 9 G1 trees at the boundary with no PRFs



Plate 10 G1 Trees Leyland cypress with no PRFs

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Plate 11 G2 trees close to impact area with no PRFs



Plate 12 G3 trees with no PRFs

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Results Data search

The general area around the school has a moderate biomass of bat species according to the data search but this is likely due to under recording and the area being low in the number of development projects.

Table 2 Bat records 5km radius CF48 4NT

Bat Species	Distance from site centre (km)
Bats	< 1km
58 records returned	> 5km
Brandt's bat	> 5km
2 records	
Brown Long eared	> 5km
3 records	
Common Pipistrelle	> 5km
18 records	
Daubentons bat	> 5km
7 records	
Greater Horseshoe bat	> 5km
1 record	
Natterers bat	> 5km
1 record	
Noctule bat	> 5km
15 records	
Serotine bat	> 5km
1 records	
Soprano pipistrelle	> 5km
10 records	

The wider area around the site has good habitats for bats and the numbers of bat species recorded with 5km of the site is moderate for the quality of habitats recorded.

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Results

Summary of GLTA survey results

One tree, a London Plane with PRF-I rot hole and ivy covering and was inspected with an endoscope and torch and was found to not be a roost and had no signs of bats. The tree is located in G1 shown in plates 6, 7 and 8. The tree will not be either directly or indirectly impacted by the proposed works and is located in an area that will be retained as part of the scheme. The tree is also located in an area regularly recorded at over 20 lux which will further reduce the risk of bats using the tree as a roost (see Bat Survey and Assessment report Alder Ecology September 2024). No other trees in the assessment had features that could be used by bats and all trees will be retained as part of the proposed scheme.

Table 10 Tree assessment results GLTA

Tree	What3words location	Category assessment	Description of potential	Action & result
G1. Woodland tree group (12 trees)	librarian.rugs. accented	PRF-I	Rot holes, ivy	Checked with endoscope and torch. No further action not impacted by works NOT A BAT ROOST
G2. linear line of roadside trees (4 trees)		NONE	NONE	Not applicable not impacted by the works
G3. Two trees close to main entrance (2 trees)		NONE	NONE	Not applicable not impacted by the works

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Conclusions

The survey concluded that only one tree from the three groups (G1, G2, G3) had any potential for roosting bats. The tree was located in group G1 a London Plane with PRF-I rot hole and ivy covering. The tree was inspected with an endoscope and torch and was found to not be a roost and had no signs of bats recent or historic. The tree is located in G1 shown in plates 6, 7 and 8. The tree is also located in an area regularly recorded at over 20 lux which will further reduce the risk of bats using the tree as a roost (see Bat Survey and Assessment report Alder Ecology September 2024). No other trees in the assessment had features that could be used by bats and all trees will be retained as part of the proposed scheme.

The general area had a low biomass of bats during the 2024 emergence surveys likely as a result of the high lux levels on site, but situations can change quickly with mobile species such as bats, if opportunities arise particularly as the site is close to good quality habitat and the River Taff. The site also contains trees with a low associated insect composition such as Sycamore, London Plane and Leyland cypress which reduces the feeding opportunities on site for bats. Bat are active around the school and one roost has been recorded on the school building in the south so encounters with bats may happen on site.

The trees on site will not be directly or indirectly impacted by the proposed scheme and will be retained on site. The trees are not a bat roost at the time of survey and therefore bats are not a constraint to this proposed development.

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Recommendations

The following recommendations are provided:

- Any proposed new planting or like for like replacement should aim to use native vegetation to increase the biodiversity value of the site.
- Artificial bat boxes if used on the site should be erected at 2/3m in height south or west facing suitable for serotine and common pipistrelle bats and in an area with low lux levels.
- Any lighting of the property should be minimised to prevent light spill onto the adjacent habitats and if required should be activated using short timed motion sensors.
- Do not illuminate the site above baseline levels recorded on site and highlighted in this document or use short duration motion sensor lighting.

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