CYNGOR GWYNEDD

ADDENDUM TO ECOLOGICAL SURVEY FOR NEW PRIMARY SCHOOL BUILD YSGOL TREFERTHYR CRICIETH

Dr Rod Gritten PhD PGCE CBiol MSB
GRITTEN ECOLOGY

17th March 2021

GrittenEcology

Dr Rod Gritten PhD PGCE CBiol MSB
rod@grittenecology.co.uk | 01766 770 933 | 07768 319 560
Traian, Llanfrothen, Penrhyndeudraeth, Gwynedd LL48 6SW

1.0 INTRODUCTION

A preliminary ecological survey of the site for the proposed new primary school in Cricieth was carried out in 2019 by **Gritten Ecology** (Report 20.5.21). Since that time, the design of the school and its landscaping has received further iterations. This included a detailed arboricultural survey (Luke O'Connor 13.7.20) which was revised on 7.1.21. Each tree was separately tagged with its own unique tree number. The following is a survey of all the trees on the site to assess their potential to support roosting bats. The survey was carried out on 16th March 2021 during clear sunny weather and the report below should be read in conjunction both with the original **Gritten Ecology** ecological survey (revised 20.5.21) and the two arboricultural surveys.

2.0 SURVEY METHODOLOGY

Each tree was examined in detail from the ground. The following features of the trees were identified as providing possible bat roost sites: cavities (splits and holes), loose bark, fissures and the presence of dense Ivy (*Hedera helix*) cover. These trees were placed into any one of four categories according to their suitability as bat roosts:

1: None
2: Low Potential
3: Medium Potential
4: High Potential

Trees ranked as 4 (High Potential) usually possessed clear holes or deep fissures in positions on the tree which would allow them to remain dry, away from the prevailing weather and inaccessible to predation. Each tree was identified by its numbered tag. Trees were assessed from the ground using binoculars and a high-powered Clulite torch.

The purpose of the survey was to identify which trees require further (emergence) survey for their potential to be a site for roosting bats. Trees identified as having Medium to High Potential were not automatically recommended for further (emergence) survey. This depended on the recommendations of the arboricultural surveys. So that should a tree identified as a possible bat roost be recommended to be either felled or to receive some degree of pruning, which would constitute disturbance to a bat roost, then an emergence survey is recommended. The term 'pruning' may refer to a number of different operations. These might simply be the removal of limbs (crown or limb reduction), or the removal of deadwood, tear-outs or hangers. The results of this survey are shown in **Table 1** below and it is clearly important to cross-refer this present survey to the detailed arboricultural report.

3.0 RESULTS

The results of the present survey are shown in **Table 1** below

Tree No.	Tag No.	Species	Arboricultural Recommendation	Bat Roost Potential (1-4)	Bat Survey Recommendation
1	0056	Oak	Retain	1	None required
2	0057	Oak	Retain	2	ESR
3	0058	Oak	Retain	2	ESR

4	0059	Alder	Fell	4	ESR
5	0060	Sycamore	Fell	4	ESR
6	0061	Sycamore	Retain	4	None required
7	0062	Sycamore	Retain	1	None required
8	0184	Sycamore	Retain	1	None required
9	0175	Sycamore	Retain	1	None required
10	0092	Elm	Retain	1	None required
11	0186	Sycamore	Retain	!	None required
12	0188	Sycamore	Retain	1	None required
13	0176	Sycamore	Fell	1	None required
14	0197	Sycamore	Retain	1	None required
15	0173	Sycamore	Fell	1	None required
16	0200	Sycamore	Prune	1	None required
17	0196	Ash	Fell	1	None required
18	0024	Sycamore	Retain	1	None required
19	0183	Sycamore	Retain	1	None required
20	0191	Sycamore	Retain	1	None required
21	0189	Corsican Pine	Fell	1	None required
22	0182	Hornbeam	Fell	1	None required
23	0193	Sycamore	Retain	1	None required
24	0190	Sycamore	Retain	1	None required
25	0174	Corsican Pine	Retain	1	None required
26	0199	Sycamore	Retain	1	None required
27	0198	Sycamore	Retain	1	None required
28	0192	Sycamore	Retain	1	None required
29	0063	Sycamore	Fell	1	None required
30	0064	Sycamore	Retain	1	None required
31	0065	Sycamore	Retain	1	None required
32	0066	Norway maple	Fell	1	None required
33	0067	Sycamore	Retain	4	None required
34	0068	Sycamore	Fell	1	None required
35	6900	Norway maple	Fell	1	None required
36	0070	Norway maple	Retain	4	Endoscope survey
37	0071	Corsican Pine	Fell	1	None required
38	0072	Sycamore	Fell	1	None required
39	0073	Holly	Fell	1	None required
40	0074	Sycamore	Retain	1	None required
41	0075	Sycamore	Retain	1	None required
42	0076	Sycamore	Retain	1	None required
43	0077	Sycamore	Retain	1	None required

44	0078	Sycamore	Retain	2	None required*
45	0079	Sycamore	Retain	1	None required
46	0081	Sycamore	Fell	1	None required
47	0087	Norway maple	Retain	1	None required
48	0088	Sycamore	Retain	1	None required
49	0098	Sycamore	Retain	1	None required
50	0086	Oak	Retain	1	None required
51	0093	Norway maple	Fell	1	None required
52	0099	Holly	Fell	1	None required
53	0097	Oak	Prune	3	ESR
54	0100	Oak	Retain	1	None required
55	0094	Oak	Prune	4	ESR
56	0085	Oak	Retain	1	None required
57	0083	Sycamore	Prune	1	None required
58	0084	Norway Maple	Retain	1	None required
59	0085	Sycamore	Fell	1	None required

Table 1: Results of bat roosting potential in trees. (ESR = Emergence survey required. * Tree No 44 contained an active corvid nest).

It is clear from **Table 1** that the majority of the trees on this site have no bat roosting potential and, therefore, emergence surveys are not required. It is worth describing in some detail those seven trees that do require further survey.

Tree No. 2 (0057) is a veteran Sessile Oak (*Quercus petraea*) with Low Potential (2) as a bat roost but has a fissure in an area of deadwood on the northern side of the tree that requires an emergence survey. The tree has been recommended to be retained but requires some limb removal to avoid further rot damage.

Tree No. 3 (0058) is also a veteran Sessile Oak with Low Potential (2) as a bat roost in a tear-out to the south that requires an emergence survey. The tree has been recommended to be retained but requires some removal of deadwood. It also has potential as a bird nesting site

Tree No. 4 (0059) is a veteran Alder (*Alnus glutinosa*) (**Photo 1**) that has High Potential (4) as a bat roost and also possibly as a bird nesting site. At the time of writing, it has been recommended to be felled to accommodate the proposed development. It therefore requires a detailed emergence survey as it has suitable hollows and fissures to the west.

Photo 1: The veteran Alder with the potential bat roost ringed in red.

Tree No. 5 (0060) is a poorly Sycamore (*Acer pseudoplatanus*) that is showing signs of early senescence but has High Potential (4) as a bat roost (**Photo 2**). Due to its condition, it has been recommended for felling. There appears to be a suitable roost entrance to the west.

Tree No. 36 (0070) is a Norway Maple (*Acer platanoides*) which has High Potential (4) as a bat roost having a suitable hole just above head height on its trunk. It has been recommended to be retained but have tear-outs, deadwood and a hanger removed. The hole can be examined with an endoscope since it is so accessible. Should signs of bats be noted, an emergence survey will be required. The endoscope survey will have to be carried out from May onwards.

Tree No. 53 (0097) is a veteran Sessile Oak which has a Medium Potential (3) as a bat roost. It has been recommended to reduce the tree to 10 metres but to be retained as wildlife habitat though diseased. An emergence survey is required.

Tree No. 55 (0094) is also a veteran Sessile Oak with a High Potential (4) as a bat roost. It has been recommended to be retained as wildlife habitat but to reduce the main leader by 6 metres. It has several possible sites which might provide roosting opportunities for bats, so an emergence survey is required.

It is also worth noting there are several trees on the site which have Ivy growth. In all cases it was possible to see the main trunk of the trees and that they had no potential as bat roosts.

Photo 2: The diseased Sycamore with a potential bat roost ringed in red.

4.0 DISCUSSION

Emergence surveys will be carried out in May when bats are most likely to be active. An evening survey will suffice. Appropriate bat detectors will be used. If bats are not found to be using the trees, no further action will be required as far as bats are concerned. The trees can either be retained untouched, pruned, or felled as recommended.

If bats are found to be roosting in any of the trees, a derogation licence will have to be obtained from Natural Resources Wales before any works can be carried out on the trees. The procedure of applying for this licence involves the submission of a detailed Method Statement. This will detail any possible mitigation for disturbance to or loss of the bat roost tree and specify the most appropriate time of year to prune or fell the tree. If it transpires that an active bat roost will be affected, it may well be possible to incorporate suitable bat boxes into the development, more than likely on trees that are unlikely to be disturbed during the running of the school.

If the emergence survey shows the tree to be a bat roost, discussions can be held with the Arboriculturalist and the Design Team to see if the tree can either be retained (if marked for felling) or the pruning works can be carried out in such a way as to retain the bat roost. If this is a feasible option, pruning will have to be carried out at an appropriate time of year when the tree is not being used as a bat roost or hibernaculum.