

Bat Survey: The Clogery, Ynysgollen, Aberdulais, Neath, SA10 8HN



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Warning! The building is now a confirmed bat roost.

No works can be undertaken that may impact or disturb the roost without the legal owner being in possession of a European Protected Species License. Please refer to section 4 and section 9 of the report for further details.

If there is any doubt of what is permissible please contact the author on: Tel:07866461726 or Email rich@ecologicalservices.wales prior to any works commencing.

Disturbance or destruction of a bat roost is a criminal offence that may result in any granted planning permission being revoked, the legal owner receiving a fine and or a prison sentence.

1.0 The Brief; its Background and Purpose

1.1 The Clogery is a detached property situated in the rural village of Aberdulais near the market town of Neath. The building is currently in use as a residential dwelling and planning permission is sought to create an upward extension of the building. This report will investigate if there is potential to disturb bats and will be used to assist in the planning process.

1.2. To support the planning application a bat report has been commissioned to investigate if bats use the current property in any capacity during the maternity season, and for any evidence suggesting that bats use the property at other times of the year.

1.3 The report is prepared and undertaken by Mr. Richard Watkins BSc., an experienced bat ecologist with 13 years experience, and Aislinn Harris, a Natural Resources Wales licensed bat ecologist, license number S085699-1.

1.4 A data search did not identify any historic records of bats being present in the building. The nearest recorded day roost is 1008m from the property which is a record for a Brandt's Bat (*Myotis brandtii*) day roost from 1993. There are various non roosting records for bats, the nearest being 700m from the property which is a record for a foraging unidentified bat species; 996m from the property which is a record for foraging Common Pipistrelles (*Pipistrellus pipistrellus*) and 1013m from the property which is a record for a commuting Noctule (*Nyctalus noctula*). There is a record from 2015 for a Pipistrelle (*Pipistrellus*) care call 1060m from the property. The property is not within 10km of a designated SAC or SSSI for bats, however, due to the small scale of the proposed development, these sites will not be adversely affected.

2.0 Site Description

2.1 The Clogery is a detached, stone built property with a slate apex roof. The building is two storeys in height with a single stone chimney block and timber barge boards; fascia and soffit. There is no cavity wall in the building. There are roof lights present on the building. The building has undergone more recent total renovation including a new roof and roofline.

2.2 The Clogery dates back to in excess of 100 years but has recently been renovated and is located in a rural environment in the village of Aberdulais near the market town of Neath. There is no ambient lighting within the vicinity of the property.

2.3 The nearest significant watercourses are the River Neath, approximately 203m to the south east of the property and the Neath Canal, approximately 364m to the east of the property. There is a smaller watercourse, Twrch Brook, approximately 410m to the east of the property.

2.4 The Clogery is located in the rural village of Aberdulais. The building is immediately surrounded by open fields and farmland and there are riparian corridors along the watercourses. There is optimal ecological connectivity for bats to the wider environment and there are plentiful supplies of fresh water in the immediate and intermediate areas around the property. Both the immediate and intermediate areas around the property would be suitable for many species of UK bats.

2.5 The National Grid Reference of the site is: **SN 7956 0050**.

3.0 Report Constraints

3.1 The report is solely concerned with bats in relation to this building. Trees and other buildings not mentioned directly have not been included in this report.

3.2 Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviours. The survey methods employed can provide evidence for the potential presence of bats at the times when the site was visited. Although the methods follow best practice guidance and were carried out in such a way as to maximise the chances of detection, failure to detect the target species cannot be considered as definitive proof of their absence.

3.3 Even though bats are habitual creatures they can still move to new roosts if they are more suitable. Therefore this report cannot predict the status of the structure in regard to bat occupancy in the future. This report should be acted upon as soon as practical and will be valid for two years from the date of issue. If planning or building works are delayed, it is the responsibility of the client to discuss and gain approval from the *author* before work commences. Natural Resources Wales will only consider reports up to two years old.

3.4 Due to the Covid-19 pandemic no internal inspections were undertaken, however, it is suggested that this did not significantly alter the reports conclusion.

4.0 Legal Constraints

4.1 Bats, and any place a bat uses for breeding or shelter, either currently occupied or unoccupied, are protected by European and British law, predominantly by **The Conservation of Habitats and Species Regulations 2017**, which are the principal means by which the Habitats Directive is transposed from European directive into law in England and Wales.

4.2 In summary this law states that it is an offence to:

- **Deliberately capture or kill a bat**
- **Deliberately disturb a bat**
- **Damage or destroy a breeding site or resting place of a bat**
- **Keep, transport, sell or exchange, or offer for sale or exchange a living or dead bat or any part of a bat**

4.3 ‘Deliberately’ may also be interpreted, as not intending to injure or kill a bat but having done so due to being insufficiently informed and unaware of the consequences of the action.

4.4 For a more comprehensive description and exact wording of the legislation please refer to:

<http://www.legislation.gov.uk/ukxi/2010/490/contents/made>

4.5 Where there is a risk that a bat roost may be present, it is incumbent upon the owner to commission a specialist bat survey to identify bat roosts before any work commences. Maximum penalties for offences relating to disturbance to bats or their roosts can amount to imprisonment for a term not exceeding six months or fines of up to Level 5 on the

standard scale under the Criminal Justice Act 1982/1991 (i.e. £5000 in April 2001) per roost or bat disturbed or killed, or to both.

4.6 If a bat roost is discovered, no work that could affect the roost can be undertaken until Natural Resources Wales grants a licence endorsing the work. A thorough method statement and adequate mitigation proposal will need to be submitted to support any licence application.

4.7 The Environment (Wales) Act 2016 puts an onus onto responsible bodies such as Local Planning Authorities to not only preserve but also to enhance biodiversity, meaning that planning applications must offer an element of ecological gain as well as preserving any aspects of ecological importance.

5.0 General Information

5.1 Bats are unable to build roosts themselves and instead rely on both man made and naturally occurring features to provide suitable accommodation. Bats generally prefer older buildings built with traditional materials, as traditional building methods provide more opportunities for gaps and entrances to buildings. Traditional cut roofs are preferred to a roof with trusses. Bats also prefer to roost where the external roost area has access to sunlight during the day such as south facing roof elevations.

5.2 Bats can utilise the following features on a building; end tiles, barge boards, soffit, gable ends, porches, lead flashing, hanging tiles, ridge tiles, broken tiles, eaves, sash window frames, wood cladding, fascia boards, window sills, and internal roof spaces and timbers. Although this list demonstrates the most popular roosting sites it is by no means definitive. Bats can use apertures as small as 10mm in diameter to gain access.

5.3 The UK bat population is divided into two distinct families, Rhinolophidae and Vespertilionidae. In general, Rhinolophidae (Horseshoe) bats differ in their roosting requirements to Vespertilionidae (the remainder of UK bat species). Horseshoe bats prefer to roost in large areas such as internal attic spaces and hang in the open from the roof of the roost. They tend to roost in visible clusters to maintain the high temperatures that a maternity colony needs. Horseshoe bats also prefer free flight access and egress into the roosting area. Horseshoe bats tend to be more light averting to other UK bat species, and routinely fly around the internal roosting area to warm up before exiting. It is noted that Plecotus (Long Eared) bats share some of these preferences. Vesper bats are, on the whole, crevice dwelling bats who squeeze into small apertures to access the roost. These, like Horseshoe bats, will cluster in maternity colonies but are normally hidden from view. Vesper bats, with the exception of Long Eared bats, do not require a large internal roost to fly around before exit. Long Eared bats, although part of the vesper family are very light averting and will, on occasions share the roosting patterns of both Horseshoe and crevice dwelling species.

6.0 External Scoping Survey

6.1 The external scoping survey was undertaken on the 20th July, 2021 and in conditions of good natural light. All external aspects of the building were comprehensively evaluated for roost potential. Evidence was also sought for any staining or droppings which could suggest bat occupation. Binoculars and an endoscope were used when required. Unfortunately there was a significant rain shower during the site visit.

6.2 The buildings were inspected for overt evidence of bat presence and occupation such as:

- Staining around entry of roosting points caused by oils secreted by the bat into its fur
- Scratching on surfaces caused by the bat in the acts of take off and landing

- Bat droppings on walls, floors, roof voids, window cills or panes and barge boards
- Urine stains below a possible entrance site, within the entrance to a cavity or on timbers used for roosting
- Bats can produce chatter on warm evenings prior to leaving the roost. A heterodyne bat detector is used to help determine this
- Flies around the entrance or on the floor of possible roosts, which may be attracted to bat guano

6.3 Due to recent renovation works to the building, there were limited opportunities for bats to roost. Those that were available were deemed as moderate potential. There was slightly raised lead flashing in the valley along with raised ridge tiles and a raised end tile by the chimney which was raised both sides. The building was classed as moderate potential for roosting bats.

6.4 No droppings or evidence of bats were discovered on any external features although this would not be definitive of bats not using the building at other times of the year.

6.5 Examples of apertures allowing access to cavities in the building:



7.0 Internal Inspection

7.1 Due to the Covid-19 pandemic no internal inspections were undertaken, however, it is suggested that this did not significantly alter the reports conclusion.

8.0 Emergence and Dawn Surveys

8.1 The emergence surveys were carried out during the maternity season and adhered to current best practice guidelines. These surveys were conducted from half an hour before sunset until two hours post sunset. The surveyors used are all experienced bat counters who have undergone sufficient training in basic bat ecology and bat activity. The surveyors used were Keith Watkins; Richard Watkins and Scott Watkins. All sound analysis was undertaken by Richard Watkins.

8.2 The emergence surveys gave extra consideration to the features identified during the external scoping survey which could be utilised by bats.

8.3 Emergence Survey on 1st August, 2021.

- Sunset: 21:03
- Weather: Dry and calm with 10% cloud cover
- Temperature: 16 degrees celsius
- Surveyors: Keith Watkins and Richard Watkins

A pre external examination of the building identified a number of bat droppings adjacent to the chimney stack on the south east gable. These were consistent with Pipistrelle droppings.

57 bats were observed emerging from the building. 54 Soprano Pipistrelles (*Pipistrellus pygmaeus*) and 3 Common Pipistrelles (*Pipistrellus pipistrellus*) were observed emerging from the left chimney.



8.4 Emergence Survey on 12th August, 2021.

- Sunset: 20:44
- Weather: Dry and calm with 25% cloud cover
- Temperature: 16 degrees celsius
- Surveyors: Scott Watkins and Ryan Smith

59 bats Soprano Pipistrelles were observed emerging of the left chimney in the same location as the previous survey.



8.5 The weather conditions were dry and calm with very little wind and no rain and therefore conducive for bat activity. The temperature was 16 degrees celsius during both emergence surveys.

8.6 The best viewing conditions were obtained.

8.7 Echo-meter Touch 2 Pro bat detectors were present to acoustically record any bat calls.

8.8 Analysis of sound recording on bat detectors:

Species of Bats Recorded Emerging from the Building:	
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Noctule	<i>Nyctalus noctula</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>

8.9 During the emergence surveys, a high number of Soprano Pipistrelle (*Pipistrellus pygmaeus*) and a low number of Common Pipistrelle (*Pipistrellus pipistrellus*) and Noctule (*Nyctalus noctula*) bat calls were recorded. A single Noctule (*Nyctalus noctula*) was observed commuting over the site.

9.0 Concluding Remarks and Recommendations

9.1 Direct evidence of bat use was identified; Common Pipistrelles (*Pipistrellus pipistrellus*) and Soprano Pipistrelles (*Pipistrellus pygmaeus*) was observed using the building as a day roost. A maximum of 59 bats were observed using the building as a day roost during any emergence survey. Common Pipistrelles (*Pipistrellus pipistrellus*) and Soprano Pipistrelles (*Pipistrellus pygmaeus*) are common species of bats and are often found roosting in buildings. These types of bats are more tolerant to light disturbance than other species of bats. The building was assessed as having moderate potential for bat use. The building and its condition did offer limited features for bat occupation due to recent renovation works including a new roof. The location of the building, being in a rural environment with excellent ecological connectivity to suitable feeding areas made the location of the building optimal for bat use. There was no ambient lighting within the vicinity of the building.

9.2 Throughout the surveys, a high number of bat calls were recorded and bats were observed using the building. The emergence surveys identified a Soprano Pipistrelle (*Pipistrellus pygmaeus*) maternity roost and a small occasional day roost of Common Pipistrelle bats. If careful consideration is made to incorporate improved roosting conditions into the new build scheme, then this project could offer ecological gain for the resident bats. New roost creation in the new building scheme is required to accommodate crevice dwelling species of bats. There is potential to offer ecological gain for bats and nesting birds if the project proceeds. This would help satisfy the local planning authorities legal responsibility to preserve and enhance biodiversity under the Environment (Wales) Act 2016. The creation of new roosting features will be incorporated into the schedule of works. This can be achieved at very little expense and with no impact to the owners of the building.

9.3 The building is now a confirmed bat roost. No work that could affect the bat roost is permitted by law, without the permission from Natural Resources Wales, including any works to the roof. Direct illumination of the building is also not permitted, as this could constitute disturbance. (Please see Section 5 of this report for further information).

9.4 If planning is approved, the legal owner must apply and be in possession of a licence to destroy the roost. This will take approximately 30 working days to be issued. This licence would have to offer a methodology to ensure that any loss of roosting sites be replaced and preferably enhanced in the new build and the project be undertaken in a way which minimises any risk to bats. An ecological clerk of works will be appointed and retained for the duration of the project.

9.5 A detailed external lighting plan will be required to minimise any external light disturbance to the bats using the building and surrounding area.

9.6 There is no potential for Barn owl to be present in the building.

10.0 Proposed Mitigation

10.1 It is proposed that new roosting for crevice dwelling species of bat will be created underneath the entire row of ridge tiles of the new extension. This will be accessed by 3 number raised ridge tiles.

10.2 The raised ridge tiles will have two access apertures measuring 100mm long by 25mm high one the front elevation and one on the rear.

10.3 The roosting area will benefit from uninterrupted access to the sun on

its southern aspect. This along with the heat generated from the living space will create a favourable temperature range for bats. The roosting area will be sufficient in size for a maternity colony to establish.

10.4 Bats will be restricted to the void in the underside of the ridge tile by using a continuous piece of 1F bitumen felt as a base liner. This will be fixed in location over the top rafters as per adjacent image.

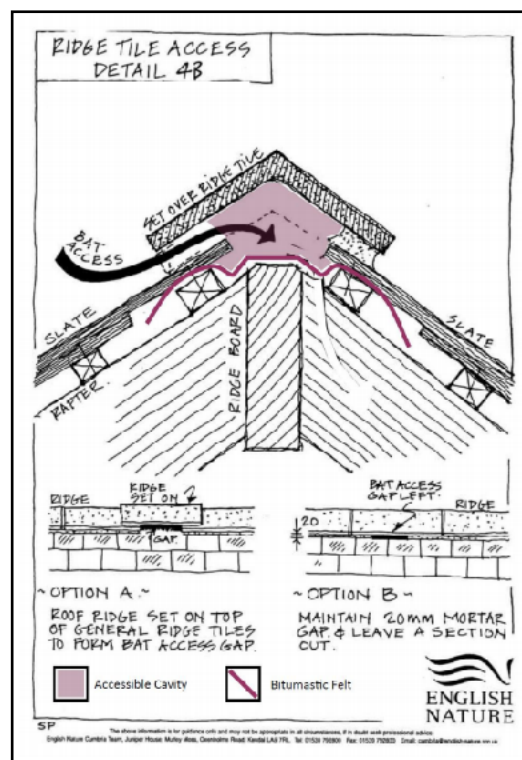
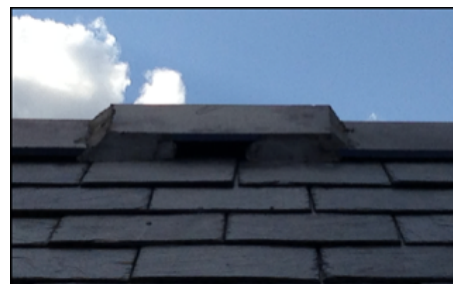
10.5 There will be no direct illumination of any roost exit points. Any external lighting will be controlled by passive infrared.

10.6 Breathable membrane is dangerous for bats therefore it is essential that the detail contained in the adjacent drawing is followed exactly and is to be fitted under direct ecological supervision by a suitably qualified ecologist.

10.7 Bat mitigation will benefit from the south elevation or an elevation where there is direct access to sunlight as the bats can tolerate and prefer high levels of temperature in their roost.

10.8 The new glazed area will be mirrored glass which will not allow excessive light to be emitted. This will reduce the chance of light disturbance to the resident bats.

10.9 There is extensive woodland in the cartilage of the building. A bird and owl box scheme is proposed to offer new roosting for birds.



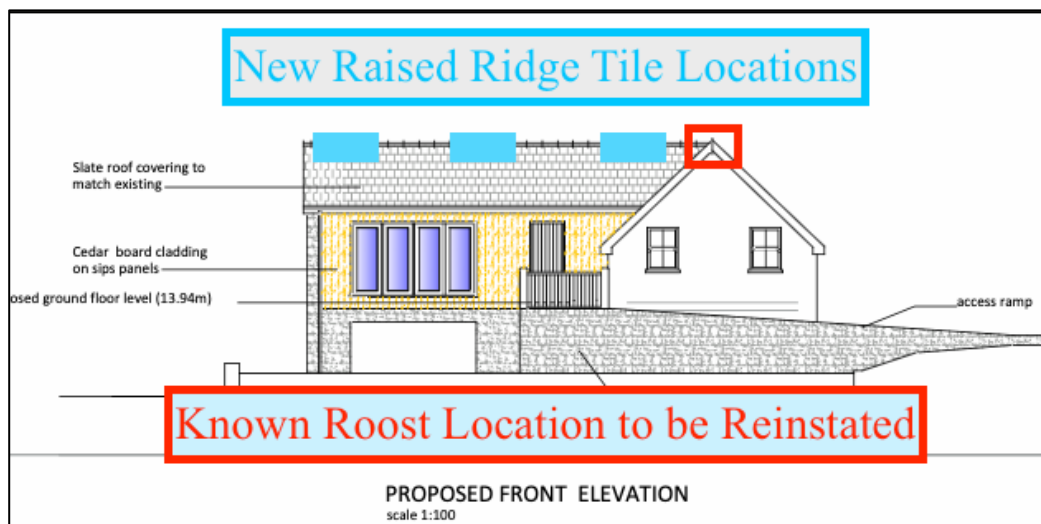
10.10 A RSPB barn owl Box will be situated in a tree within the ownership of the applicant, the exact position will be decided by the retained ecologist. The barn owl box will be situated away from the main house to avoid conflict with the resident bats.

10.11 Two number Schwegler 1B nest boxes will be fitted into a nearby tree. 1 boxes will have a 32mm access hole and 1 will have a 26mm access hole. The exact position will be agree with the retained ecologist.

10.12 The existing roost will be reinstated in its current position once the chimney has been removed. Access will be via a 100x25mm aperture under the soffit and lead into the cavity currently used as a maternity colony for Pipistrelle bats.



10.13 Proposed Mitigation Locations



Signed: R Watkins

Date: November 2021

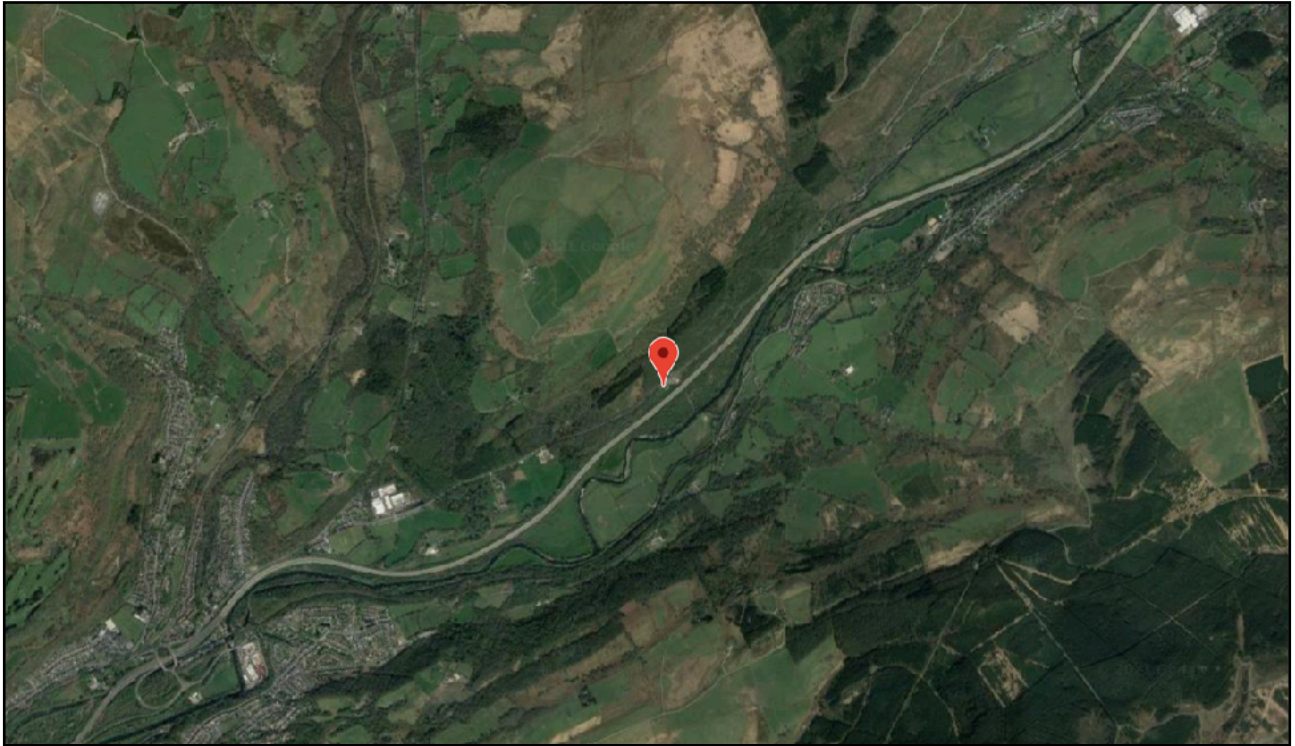
11.0 Appendix

Aerial Site Photo

Surveyor Positions

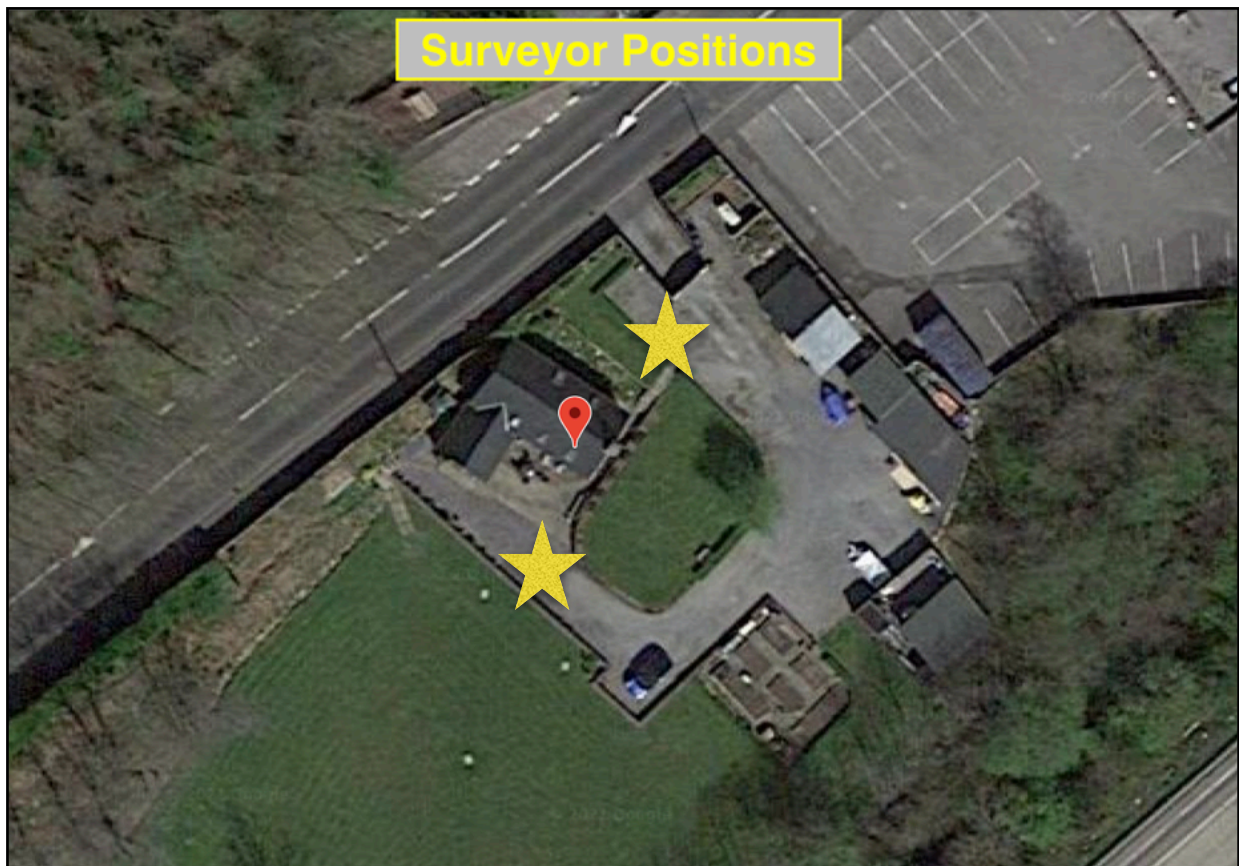
OS Map

Aerial Site Photo



The site in its wider environment showing optimal ecological connectivity to the surrounding habitat.

Surveyor Positions



OS Map National Grid Reference SN 7956 0050

