



Bat Survey: Former Llysfaen Care Home, Pearce's Court, Cefn Coed Y Cymmer,
Merthyr Tydfil, CF48 2NE



Instructed by: Merthyr Tydfil Housing Association

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1.0 Background and Purpose

1.1 The former Llysfaen Respite Care Home is a detached property situated in a semi-urban environment on the residential street of Pearce's Court in the town of Merthyr Tydfil. The property is not currently in use and planning permission is sought to convert and refurbish the existing building to create self contained flats. This will include works to the roof and fasciae etc to create dormer windows across the building roof line. 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 was undertaken with SEWBRc (0223-258) to provide information on local bat and bird species in the area. The data search did not identify any historic records of bats being present in the property. The nearest recorded roosts are approximately 105m from the property which is a record for a Soprano Pipistrelle (*Pipistrellus pygmaeus*) maternity roost from 2006; 120m from the property which is a record for a Common Pipistrelle (*Pipistrellus pipistrellus*) day roost from 2003 and 155m from the property which is a record for a Common Pipistrelle day roost from 2007. There are various non roosting records for bats, the nearest being approximately 55m from the property which is a record for a foraging unidentified bat species; 260m from the property which is a record for a foraging Common Pipistrelle and Soprano Pipistrelle and 335m from the property which is a record for a foraging Soprano Pipistrelle.

1.5 A number of nesting bird records were returned as part of the data search. Species records include Eurasian Blue Tit; Great Tit; House Sparrow; Pied Wagtail; Starling; Swallow and Swift. All bird records are within 100m of the proposed development site.

1.6 The property is not within 10km of a designated SAC or SSSI for bats.

2.0 Site Description

2.1 The former Llysfaen Respite Care Home is a detached, modern roughcast rendered building which is two storeys in height with a single storey section. There are vertical hanging tiles on the external walls. The building has a tiled apex roof with a single rendered chimney. There are uPVC fasciae; barge boards and ventilated soffits all around the building and there is likely to be a cavity wall present. There is a small, single storey, modern roughcast rendered outbuilding with a flat felt roof and wooden fasciae but no soffits.

2.2 The building sits within a small area of semi improved grassland to the south of the structure. Species noted within the grassland include Timothy, cocksfoot, yorkshire fog, doves foot cranesbill, ragwort, creeping butter cup and curled dock. Two mature cherry species of tree are present within the grassland as well. The grassland was long and did not appear to have been managed for at least this year. A small paved area is present to the south east of the building. A tarmac access road leads into the site from Maes Y Garreg road to the the south to a tarmac parking area adjacent to the

building. Another access road leads from Pearces Court to the west to a small tarmac parking area to the west of the building. Along the northern edged of the site a leylandii and sycamore tree line is present. A small amount of young bramble scrub has established underneath the trees and adjectives to the footpath which leads around the building.

2.3 The property dates back to in excess of 60 years and is situated in a semi-urban environment. There are likely to be minimal amounts of street lighting within the vicinity of the property.

2.4 The nearest significant watercourses are Taf Fawr, approximately 305m to the south of the property and Taf Fechan, approximately 390m to the east of the property. There is a smaller watercourse, Pwll Annie, approximately 415m to the south of the property and Cyfartha Park Lake lies approximately 930m to the south east of the property.

2.5 The property is situated in a semi-urban environment on the residential street of Pearce's Court in the town of Merthyr Tydfil. There is shrubbery along the northern boundary of the property and there are grounds immediately to the south of the property. Cefn Coed Cemetery grounds lie approximately 510m to the north west of the property and there are significant expanses of open land and forestry starting approximately 500m to the north and 600m to the west of the property. There is a large copse of trees around Cyfartha Park Lake and the historical landmark of the Cefn-coed Viaduct lies approximately 190m to the south of the property. There are riparian corridors along all of the watercourses in the area and there is excellent ecological connectivity for bats to the wider environment.

2.5 The National Grid Reference of the site is: **SO 0304 0799**.

3.0 Report Constraints

3.1 Bats use different roosts throughout the year. Bats hibernate in torpor for weeks at a time throughout the cold months, mainly underground in caves and in deep rot holes at the centre of large mature trees. Bats are habitual and can live upwards of twenty years. During the summer months they will normally return annually to the same roost, usually in attics of buildings to form maternity colonies. Outside the maternity season, a scoping survey can be limited as the majority of any bats using the structure as a summer roost may not be present. External evidence such as droppings and staining which can identify bat use may have been removed by the rain. Therefore this survey will evaluate potential for bat use, in addition to searching for evidence of bats.

3.2 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.

3.3 Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year; migration patterns and behaviour. 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.

3.4 Even though bats are habitual creatures they can still move to new roosts if 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 eighteen months from 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 eighteen months old.

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; 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 but 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 U.K 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 **8th July, 2022** 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.

6.2 The building was inspected for overt evidence of bat presence and occupation such as:

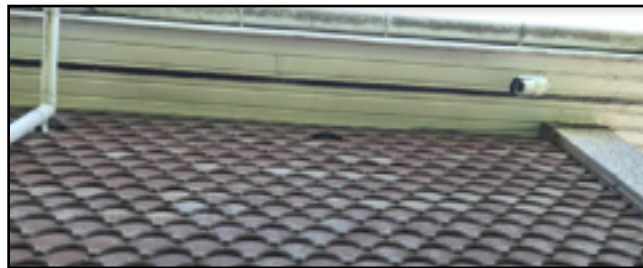
- Staining around the entry of roosting point caused by oils secreted by the bat into its fur
- Scratching on surfaces caused by the bat in the acts of take off and landing
- Bat droppings on walls; floors; roof voids; window sills or panes and barge boards
- Urine stains below a possible entrance site, 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 the age and condition of the building, there were a small number of opportunities present for bats to access and use the building and those that were available were deemed as having at least moderate potential for roosting bats. There were slightly raised tiles on the roof; a missing vertical hanging tile; apertures between the vertical hanging tiles by the majority of the windows and a small aperture in the uPVC soffit on the north western elevation of the building.

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 No evidence of nesting bird use of the building was observed during the scoping survey.

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



7.0 Internal Scoping Survey

7.1 The internal scoping survey was undertaken on the **8th July, 2022**.

7.2 There was a large attic space present within the building which was divided by partition walls into three separate voids with access doors between each void.

7.3 The attic space consisted of non-trussed rafters; block work construction and Rockwool insulation in between the floor joists. A bitumen based roofing felt was used throughout the space.

7.4 There was no visible light inside the attic space.

7.5 No obvious signs of bat use or bat guano were discovered on any internal features.



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 Jonathan Daniels; Adam Hoskins; Kieran Meek; Debbie Parry; Mason Smith; Kieran Turner and Caitlin 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 First Emergence Survey on 19th July, 2022.

- Sunset: 21:21
- Weather: Dry and calm with approximately 70% cloud cover
- Temperature: 19 degrees celsius

No bats were observed emerging from the building.

8.4 Second Emergence Survey on 31st August, 2022.

- Sunset: 20:03
- Weather: Dry and calm with approximately 25% cloud cover
- Temperature: 18 degrees celsius

No bats were observed emerging from the building.

8.5 The weather conditions were dry and calm with little wind and no rain and therefore conducive for bat activity. The temperature was above 10 degrees celsius during the emergence surveys.

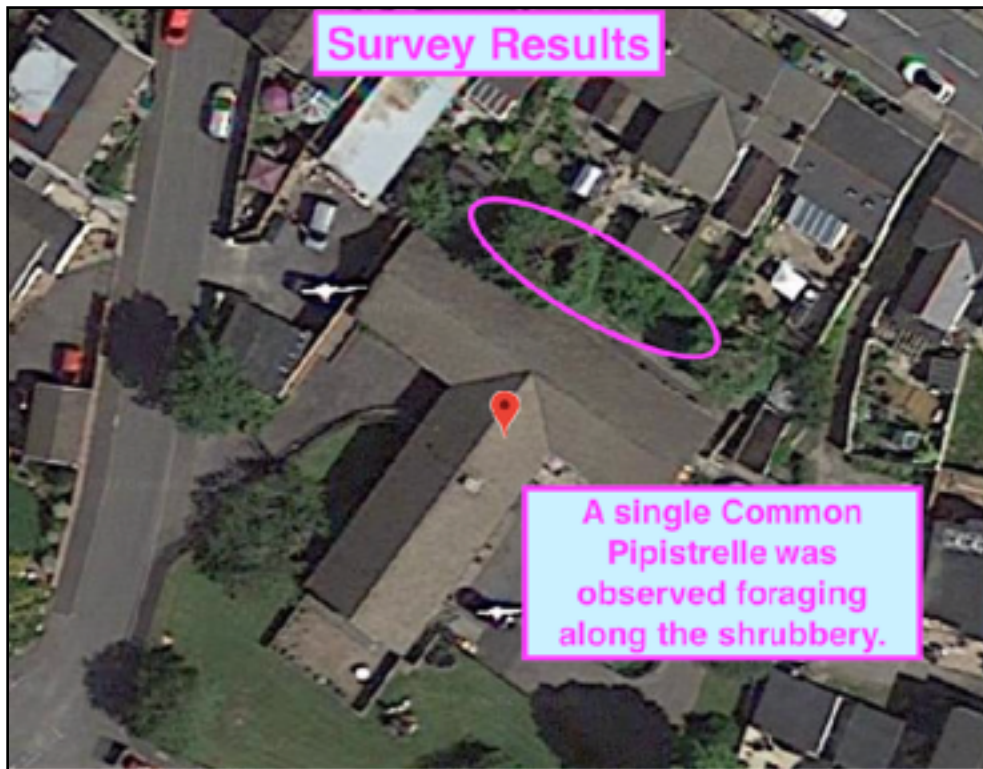
8.6 The best viewing conditions were obtained.

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 in the Area:	
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Noctule	<i>Nyctalus noctula</i>

8.9 During the emergence surveys, a very low number of bat calls were recorded. A single Noctule was observed commuting over the property and a single Common Pipistrelle was observed foraging along the shrubbery to the immediate north of the property.



9.0 Concluding Remarks and Recommendations

9.1 The property is situated in an area with ecological connectivity for bats to the wider environment and the surrounding environment does offer potential for bat use. The building was classed as having at least moderate potential for roosting bats and the building and its condition offered a small number of opportunities for bat occupation and roosting potential. Bat activity surveys were recommended based on the findings of the scoping survey visit.

9.2 Two bat activity surveys were completed during the optimum survey timeframe for bat activity. During the emergence surveys, no bats were observed emerging from the building. Throughout the surveys, a very low number of bat calls were recorded and no bats were observed emerging from the building. Therefore it is suggested that the proposed building works will have a negligible impact on the local bat population.

9.3 The building did not offer significant hibernation potential for bats. The building has previously been used by residents and would have central heating switched on during the winter months making the building fairly warm and less suitable for bat hibernation. The building is also within an urban environment surrounded by lighting. Whilst this doesn't prevent bat use of the building it does make it less likely. Less disturbed and thermally stable hibernation sites within the wider landscape are present i.e. mines, caves, stone buildings which are more attractive to hibernating bats when compared to the proposed development site.

9.4 No evidence of nesting bird use of the building was observed during the bat activity surveys. The use of the trees within the tree line to the north of the site by nesting birds is considered likely.

9.5 Street lighting is present along the roads and houses which surround the proposed development site.

9.6 The development proposals focus on the building mainly. The majority of the grassland and trees present within the site boundary will be retained as part of the development. However the tree line to the north of the site will be removed. The trees within this tree line include you sycamore and ash trees and mature conifer trees thought to be leyland cypress. The trees were subject to a cursory ground level inspection on the 8th July 2022. No features suitable for bat roosting use were noted. No gaps and cracks which bats could use were visible in any tree within the tree line.



Tree Line looking east



Tree Line Looking east

9.7 Following commencement of works; outside any ecologically supervised period and in the unlikely event that the contractor encounters any bats during any works, then work must immediately stop and the bat worker summoned. If for any reason they cannot be contacted, advice must be sought from Natural Resources Wales, (Telephone Number 0300 065 3000). No works would recommence until a licence is issued by NRW sanctioning works going forward. The guidance note on finding bats found in the appendices must be followed.

9.9 There is potential to offer ecological gain as part of the development proposals. This would help satisfy the local planning authorities legal responsibility to preserve and enhance biodiversity under the Wales Environment (Wales) Act 2016.

10.0 Proposed Mitigation

10.1 To comply with the Environment (Wales) Act 2016, biodiversity enhancements must be included within the development proposals. This will consist of:

2 number WoodStone® Estella nest box Sparrow Terrace. This will be surface mounted. Care must be taken not to obstruct the entrance holes.

3 number Schwegler IFQ surface mounted bat boxes. Care must be taken not to obstruct the entrance holes.

If any of the above products are not available, then further advice must be sought from a suitably qualified ecologist regarding a suitable replacement product.

10.2 Three number 1FQ Schwegler bat boxes will be surface mounted on the southern; eastern and western elevations. These will be fitted at the top of the gables.

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

10.4 Any bat box must be located far enough from any windows to avoid any direct light spill, at least a minimum of 2 metres away.

10.5 Two number WoodStone® Estella Nest Box Sparrow Terraces will be surface mounted, one box on the east elevation and one box on the west elevation at eaves level.

10.6 Any nesting bird mitigation will not be suited on the south elevation as this may experience excess heat from the sun.

10.7 Direct and prolonged illumination of the building, especially near any roost entry points or bird boxes must be avoided as this will cause disturbance.

10.8 The proposed site plans indicate hedgerow planting, scattered tree planting and other planting across the lower portion of the site. It appears that small garden areas for each flat, scattered tree planting and other planting will be included on the higher portion of the site where the tree line is to be removed.

10.9 The additional planting has the potential to improve habitat diversity within the site boundary. Landscape plans are not available at present. Where possible all landscaping will use native species to improved habitat diversity. It is not always possible to use native plant species due to the growth forms and proximity to buildings. If native species cannot be used, species must be chosen which are nectar rich and create berries which local wildlife can benefit from

10.10 All close board or small mesh fencing must be hedgehog friendly in design. Either a continuous gap of 13cm from the base of the fence and ground must be provided or 13cm by 13cm gaps will be cut into fencing every 3m. Landscape plans must include this details.

10.11 At the request of MTCBC Ecologist a method statement and ecological supervision of some aspects of work will be required. A bat licenced ecologist will be on site to supervise the hanging tile removal should work commence during the winter months. A method statement covering the works will need to be agreed with the Local Planning Authority prior to any works commencing and when detailed project timescales are available.

10.11 Locations of Bat and Bird Mitigation:



Location of WoodStone® Estella nest box Sparrow Terrace



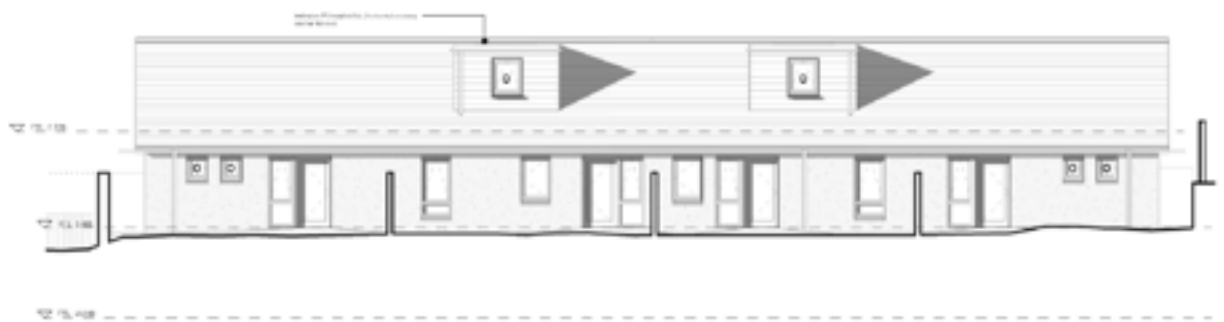
Location of Schwegler 1FQ Surface Mounted Bat Box





Proposed South Elevation
1:100

IMPORTANT NOTE
See Plan and/or
Site Plan and/or



Proposed North Elevation
1:100



Proposed East Elevation
1:100



Proposed West Elevation
1:100

11.0 Appendix

Aerial Site Photos

Surveyor Positions

OS Map

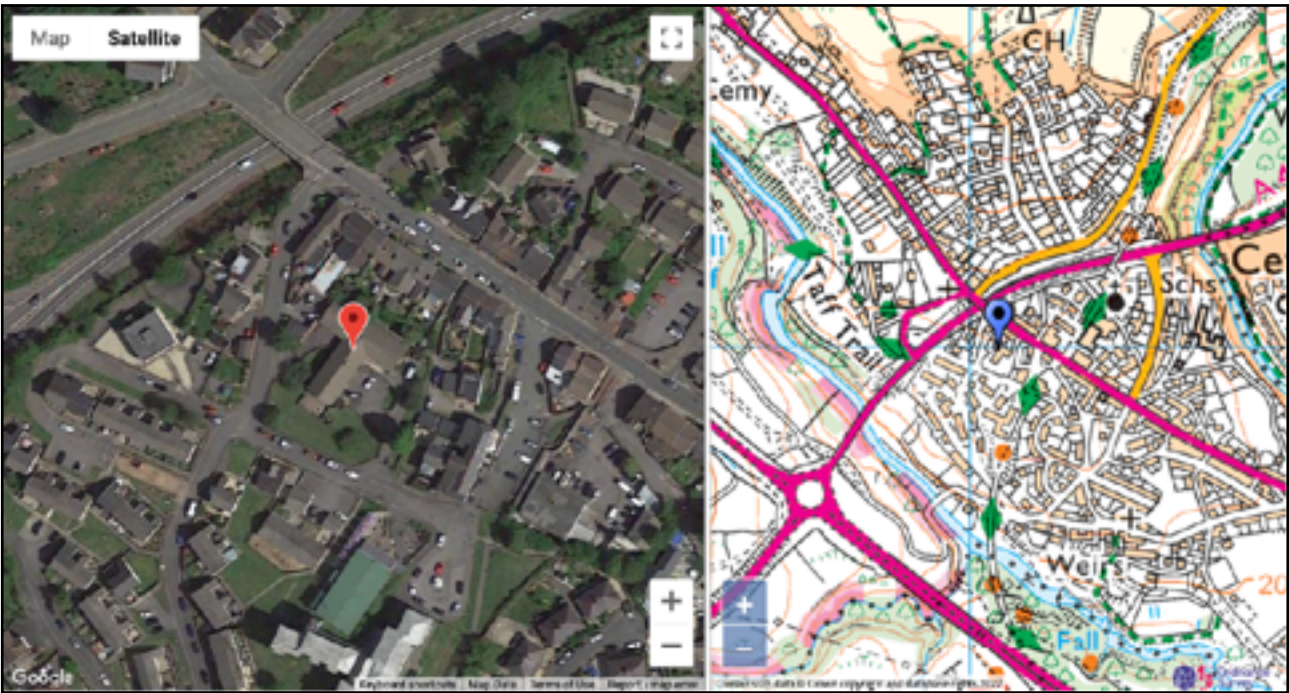
Aerial Site Photos



The site in its immediate environment.

Surveyor Positions





Site Photographs



Tarmac hardstanding to east of building



Grassland looking east



South gable end of building



Grassland to west of building



Tree line to north of site



East gable end



Example view of roof line



Example view of roof line



View of internal attic space



View of internal attic space