

**former TONMAWR SCHOOL  
TONMAWR  
NPTCBC**

**BAT & PROTECTED spp SURVEY**

**May-September 2021**

**1 survey at the request of-**

Mr David John, owner.

**2 proposed works**

Demolition of former school; new-build housing at-site.

**3 site: name/grid ref**

former Tonmawr School, Tonmawr Rd, Tonmawr SA12 9UW  
SS800962

**4 nature & date of survey**

**24<sup>th</sup> May 2021**- assessment of bat-use *via* external/internal search  
**25<sup>th</sup> May 2021**- roost-emergence/activity watch/survey  
**19<sup>th</sup> June 2021**- roost-emergence/activity watch/survey  
**25<sup>th</sup> September 2021**- roost-emergence/activity watch/survey  
**September 2021**- herp survey.

**5 objectives-**

- to assess the likelihood of any bat (or other protected species) use of the buildings
- to identify any constraints consequent upon the discovery of bats (or other protected species) in the buildings/at the site
- to identify any other protected species' use of the site.

**6 surveyors**

*Rob Colley Associates*; 4-5 Waterfall Terrace, Resolven, Neath SA11 4EE  
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Rob Colley: scientific/conservation bat licence 1999-, SO89480/1  
Rob Taylor: scientific/conservation licence, 1995-  
Len Moran: named agent, SO89480/1  
Jen Colley: Glam Bat Gp 2002-.

## 7 ecology & legal status

### 7.1 Different bat species have different life-cycle strategies but, in general, each requires the following features:

- hibernation roost sites, where stable winter temperatures allow a period of winter torpor (e.g. underground sites such as caves and mines, or crevices and hollows in mature standing trees)
  - nursery roost sites, where females gather in the spring/early summer to give birth and rear their single offspring (e.g. roof spaces, crevices and hollows in mature standing trees)
  - roost sites for individual, or small congregations of, males during spring-autumn (e.g. roof spaces, or crevices and hollows in mature standing trees)
  - an insect-productive (usually ecologically diverse) feeding environment
- additionally, there is a poorly understood need for social-gathering sites at certain times of the year (e.g. the autumn mating season) for some, or all, species.

Most, if not all, British bat species are believed to be in decline; main threats to bat populations can be summarised as:

- the loss of invertebrate-rich foraging areas (eg. woodland, hedgerows, ponds)
- the loss of nursery and hibernation roosts (eg. caves and mines, roof spaces, large standing trees)
- the effects of toxic chemicals (eg. timber preservatives in roof-space roosts, agricultural insecticides which reduce prey species).

### 7.2 All British bats, and their roosts (occupied or not) are protected by i) ) **The Conservation of Habitats and Species Regulations 2010** (the “Habitats Regs”): this legislation implements the EC Habitats and Species Directive in the UK, and ii) the **Wildlife and Countryside Act** (as amended by the **Countryside and Rights of Way Act 2000**) Schedule 5.

Developments which compromise the protection afforded to a European Protected Species require **Natural Resources Wales licence** (Habitats Regs). The granting of licence will be conditional on i) an agreed “works methodology”, designed to minimise impact on the bat(s), ii) agreed “mitigation”, to ensure the provision of alternative roost potential at/near the development. Where planning permission is sought, the LPA will need to know, at application stage, what methodology/mitigation is being proposed: this is to i) avoid changes in planning designs, post pp, ii) ensure that LPAs comply with reg 3(4) of the Habitat Regs, and iii) allow the Statutory Nature Conservation Organisation (NRW)) to properly advise the LPA.

These protections can be summarised as prohibiting- taking, killing or injuring a bat; damaging or destroying a roost (occupied or not); obstructing access to a roost; disturbing in-roost bats.

The Natural Environment & Rural Communities Act 2006/**Environment (Wales) Act 2016** requires all public authorities/bodies to have regard for the conservation of biodiversity- eg. when considering planning applications. **Section 6 (EWA)** requires LAs to ensure that development i) causes no significant loss of habitats or populations of species, locally or nationally and ii) provides a net benefit for biodiversity. There is a particular requirement to address those species and habitats listed by the **UK Biodiversity Action Plan**, in pursuance of which the Welsh Gov't

have listed Common and Soprano pipistrelles, Noctule, Brown long eared, Greater and Lesser Horseshoe, Barbastelle and Bechstein bats at Section 42 (NERC)/ **section 7 (EWA)**: Species of Principal Importance for Conservation of Biological Diversity. Implementation of these responsibilities varies across authorities but, typically, some LPAs ask for “bat accommodation” as a routine req’t, and some require survey data to be passed to a Local Records Office.

## 8 methods

Survey methodologies are implemented as appropriate, based on experienced surveyors’ assessment of the features at each site and with reference to the advice in ***Bat Surveys: Good practice guidelines*** (Bat Conservation Trust, 2007/2012/14) & ***Bat Workers’ Manual 3<sup>rd</sup> ed.*** (JNCC 2004).

building assessment: Internal/external daytime survey of the buildings was made, searching for possible bat (or other protected species) entry/exit and roosting points, incidental evidence (principally faeces) of bat use of the buildings and direct evidence of roosting bats.

emergence watch: At three dates, over the period during which bats can be expected to leave their roosts, direct observation was made of the building exteriors/adjacent habitat to monitor any bat movement in or out; heterodyne, frequency-division bat detectors were used to assist species detection/identification.)

DNA genotyping: **n/a** (When surveyors are unsure of the origin of any bat faeces found, these are submitted to Dr Robin G Allaby, University of Warwick, for species ID *via* genotyping.)

overnight (dusk-dawn) remote data recording: **n/a** (At sites where initial investigation suggests that it is appropriate, Anabat detector-recorder equipment is left *in-situ* to indicate species identification and patterns-of-use at the site.)

methodology/mitigation: Methodology/mitigation measures, where appropriate, are based on the surveyor’s experience of similar situations, with reference to ***Bat Mitigation Guidelines*** (English Nature, 2004) & ***Bat Workers’ Manual 3<sup>rd</sup> ed.*** (JNCC 2004).

## 9 results

### 9.1 site location, adjacent habitat:

The survey site is in the Pelenna valley, at a hillslope shoulder between the Pelenna and its Gwenffrwd tributary.

There are extensive areas of developing scrub, over brownfield, at near-site surrounding slopes, and over-road scrub woodland falling down to the Pelenna corridor; at the wider area, within two kilometres of site there are extensive hillside conifer plantations, with significant deciduous edges and stream corridors.

This habitat mix gives good habitat for generalist/opportunist species, and pipistrelle maternity roosts are known at housing within 1km of site, both to-north and to-south west.

The school-site is built into the north-south hillslope, with a retaining wall at the northern site edge, and is elevated above the immediately-to-south through-valley road; upslope, to-north and beyond the site retaining wall, a brownfield/thinly scrubbed area extends to a trading estate, and housing beyond; there is a small

planted woodland immediately to-west of the school buildings, with housing beyond; to-east, beyond a perimeter wall, is a house/garden.



The main school building (A) is tall but single storey; the principal ridged roof is east-west aligned, with a same height north-south subsidiary ridged roof (Ai) at the (west end of) the south (front) longwall and a lower north-south “wing” (Aii) at the east end; there are various lower “extensions” at the south/front; a link corridor connects A to a flat roofed single storey east end extension (B); a flat roofed rear extension (F) is internally connected to A; a modern prefabricated unit (D) is to the north-west of the main building; three small outbuildings (E,G,F) are at the north of site retaining wall, with one small outbuilding (C) at the south boundary.

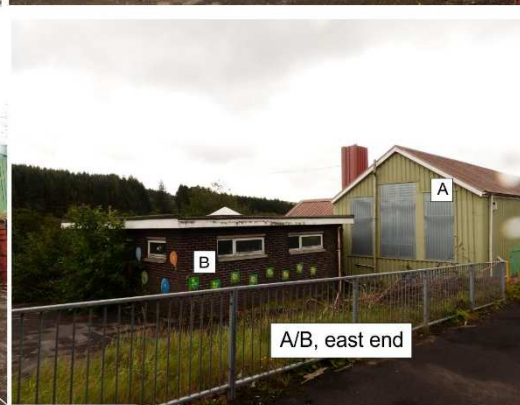
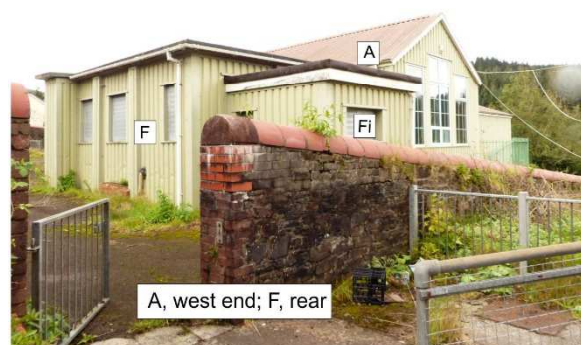
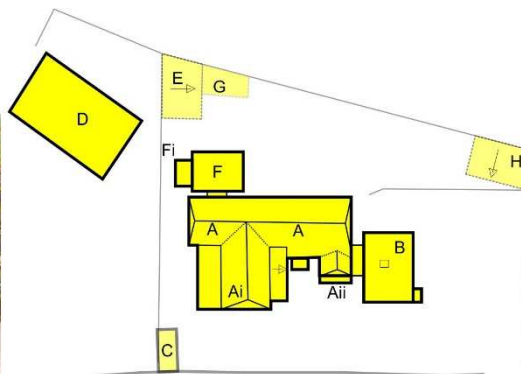
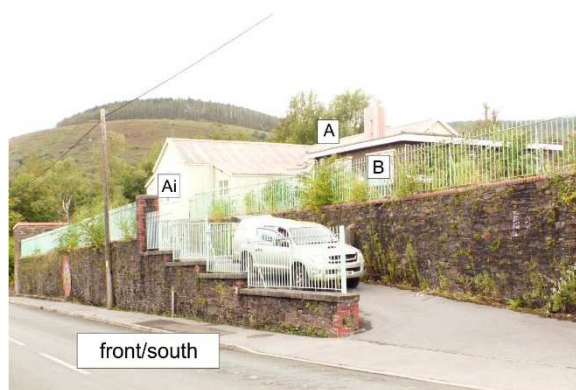
At the time of survey, the internally interconnected areas A-B-F were in use for the storage of building materials.

There is (rank, abandoned) lawn/amenity grass to-south/downslope of building C, adjoining the contiguous to-west recently planted patch of woodland, and very narrow strips of amenity grass west-east across the eastern school yard and below the north perimeter retaining wall; all other areas are tarmac/metalled.

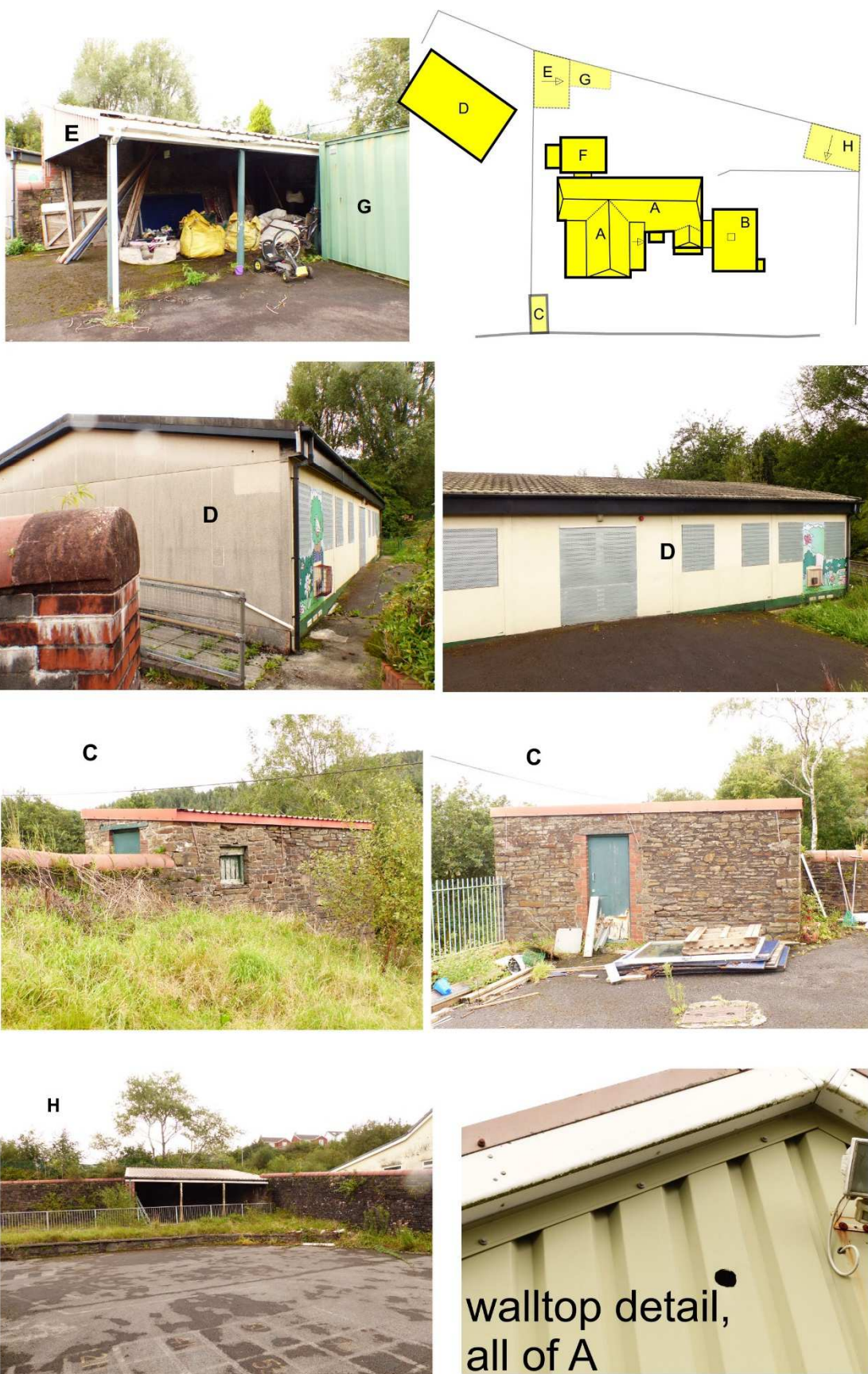


9.2 general description; bat access points; potential bat-roost opportunity; evidence of bat presence:

*annotation refers to sketch plan/photo's, below*



A-B link corridor



**A:** Above 1.8m dwarf masonry walls, all of the walls of the main building (A) are corrugated metal sheeting, in good repair and with intact/tight fitted (uPVC) windows/doors: there is no fly-in bat access opportunity, and no (visible) possibility of bat access to behind the sheeting.

Walltops have metal fascias/barges, with (retro-fitted?) uPVC soffits tight-sealed directly onto the metal edges; sheet corrugations give possible bat-access opportunity to behind fascias/barges but i) the gaps are large- too large for bat use?- and ii) access would require the animals to land directly onto the metal sheeting- not unheard of but extremely unlikely.

All roofs at A are good-repair corrugated metal sheeting, with metal ridge cappings: sheet corrugations give the potential for bat access to the under-ridge cappings: temperature fluctuation under the thin metal ridge caps makes an unlikely roost-opportunity for bats, and, as at the walltops, bat-landing onto the metal is unlikely.

Internally, the three roof sections have an under roof/attic space of <1m height, above hipped, timber planked, ceilings; access to these areas is effectively precluded by the presence of attic-filling metal ventilation chutes/ducts.

**B:** Internally connected to A, is an east-end single storey, flat roofed, extension. Walls are good repair brick, with tight fitted/intact windows/doors: there is no intra-masonry bat access, and no fly-in opportunity. Walltops are tight sealed to uPVC soffits, and the roof's bituminised felt cladding "fold over" is tight sealed to these.

Direct examination of the flat roof underside is not possible but there is no (visible) bat-access potential to this "roofskin".

**F:** Internally connected to A, a rear (north) single storey, flat roofed, extension has the same wriggly-tin wall/walltop construction as A, with intact/tight fitting windows/door; the roof's bit. felt cladding "fold over" is tight sealed to uPVC soffits. A subsidiary falt-roofed extension (Fi) is same construction.

Direct examination of the flat roof underside is not possible but there is no (visible) bat-access potential to this "roofskin".

**C:** At the south-west corner of the metallised school yard, a small shed/store has good-repair stone walls with a tight-sealed door/window; the monopitch single skin-wriggly tin "wraps over" walltops to give 0-2" inch behind-fascia gaps that had no evidence of bat use.

**D:** A single-storey, ridge-roofed, demountable building stands at the north-west site corner. Pre-fab wall panels are in good repair, and windows/doors tight-sealed, giving no intra-wall or fly-in opportunity; walltops are tight-sealed to wooden soffits. The ridged roof has cement-tile cladding, in good repair but with some inter-tile irregularities giving possible bat-access.

Direct examination of the roof underside is not possible, giving a beyond-examination "roofskin".

**E&G:** an open fronted/sided, single-skin wriggly tin roofed, shelter (E) at the n-w yard corner, and adjacent metal container (G), have no bat-use potential (and no breeding bird use at the survey dates).

**H:** an open fronted lean-to shelter at the n-e yard corner has the site perimeter wall at rear and one side, and a tight sealed stone wall at its inner side; the roof is single skin wriggly tin. No bat-use potential is identified (and no breeding bird use was found).

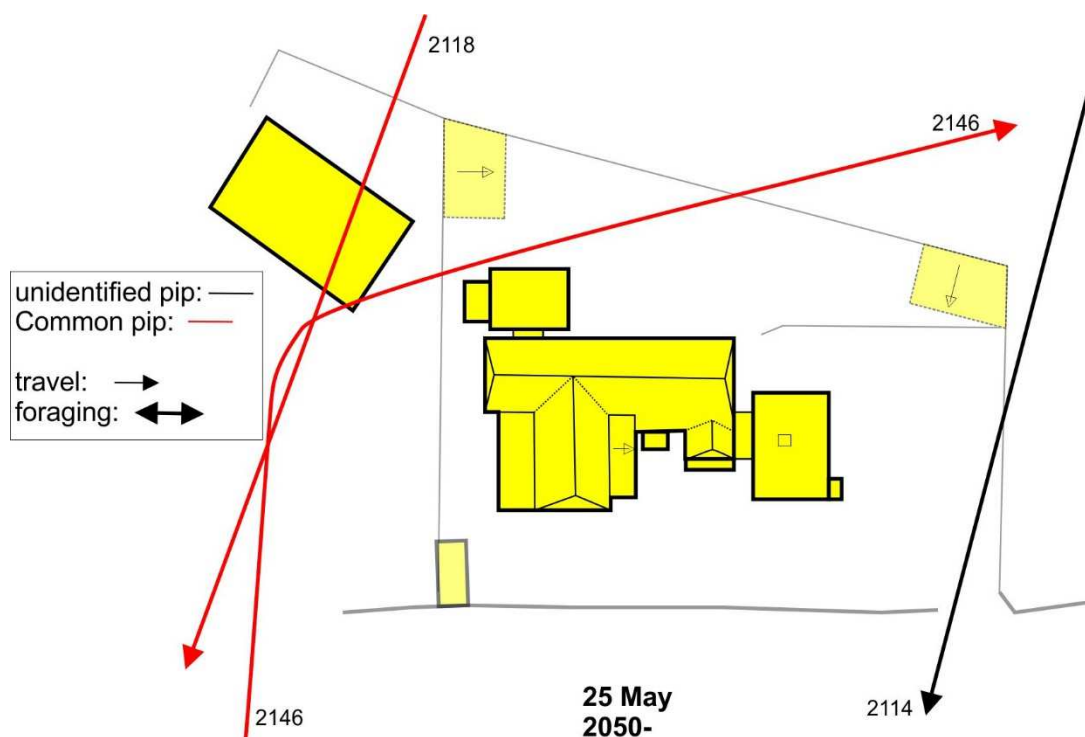
**summary:** No bat (or bird) evidence was found, externally or internally, at any of the site buildings.

### 9.3 emergence watch:

On three dates, over the dusk + 1hr period during which bats can be expected to leave their day roosts, observers were positioned to allow detection of any bat movement from, to, or past the buildings.

A pipistrelle sp (insufficient data to differentiate *pipistrellus-pygmaeus*) and Common pipistrelle *P. pipistrellus* bats were seen/heard at/near to the site.

9.3.1 25<sup>th</sup> May 2021  
2050-2215  
start temp. 15°C  
100% cloud  
no wind

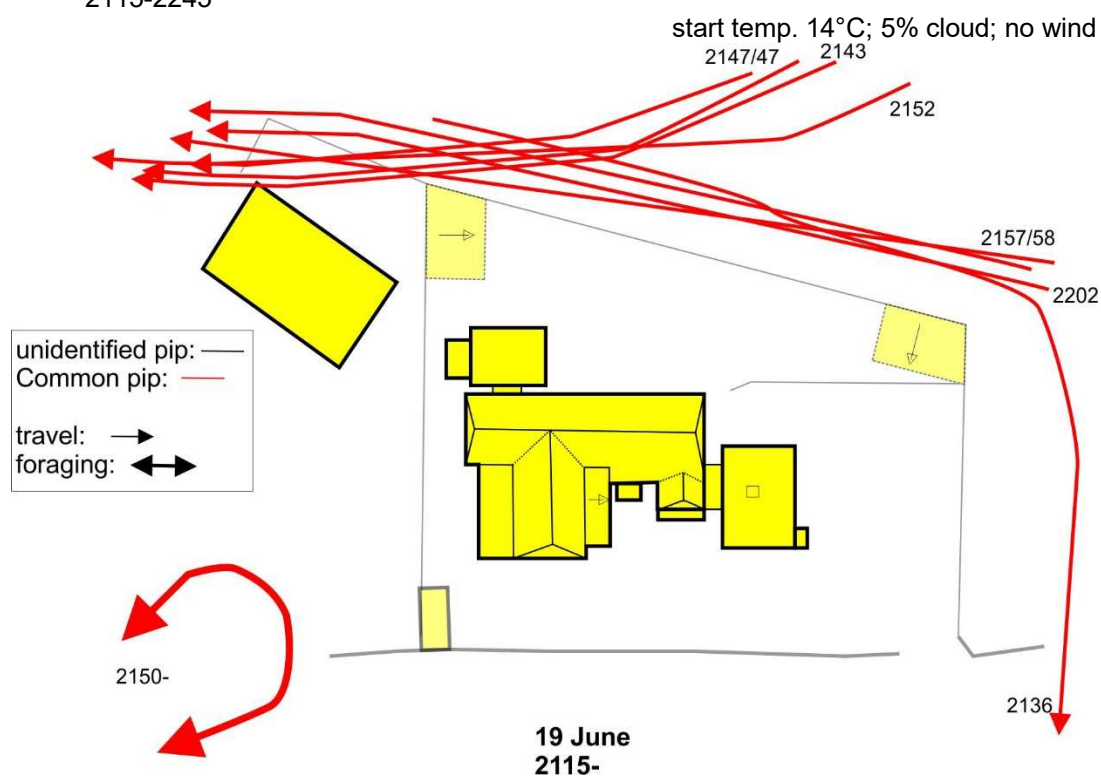


unidentified pip: x1 overflow north-south past the east of site, 2114

Common pip: x1 north-south overflow west end of site, 2118; x1 south-north over west of site, 2146.

No bats emerged from/entered the survey buildings; no other bats were seen/heard.

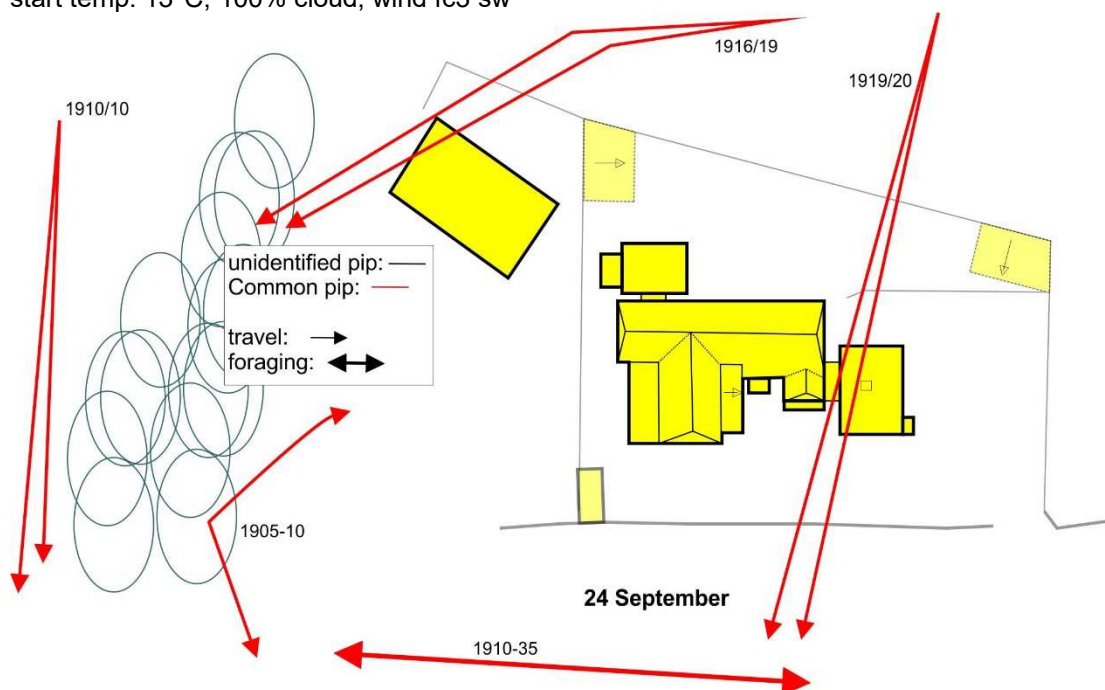
9.3.2 19<sup>th</sup> June 2021  
2115-2245



Common pip: x7 east-west across to-north bank, 2136-2202; x1 from to-north hillslope to-south, across east of site, 2136; (min) x1 animal foraging over-road to-south, 2150-end.

No bats emerged from/entered the survey buildings; no other bats were seen/heard.

9.3.3 24<sup>th</sup> September 2021  
1840-2010  
start temp. 13°C; 100% cloud; wind fc3 sw



The buildings were re-watched, in search of dispersal-roosting individuals, and additional watch was made to-west/downhill of the to-west woodland patch.

Common pip: x6 overflowed/passed the site, north-south, 1910-20; x1 foraging over-road to-south, 1910-35.

No bats emerged from/entered the survey buildings; no other bats were seen/heard.

9.4 No owl activity was seen/heard at any date.

9.5 overnight (dusk-dawn) remote data recording: n/a

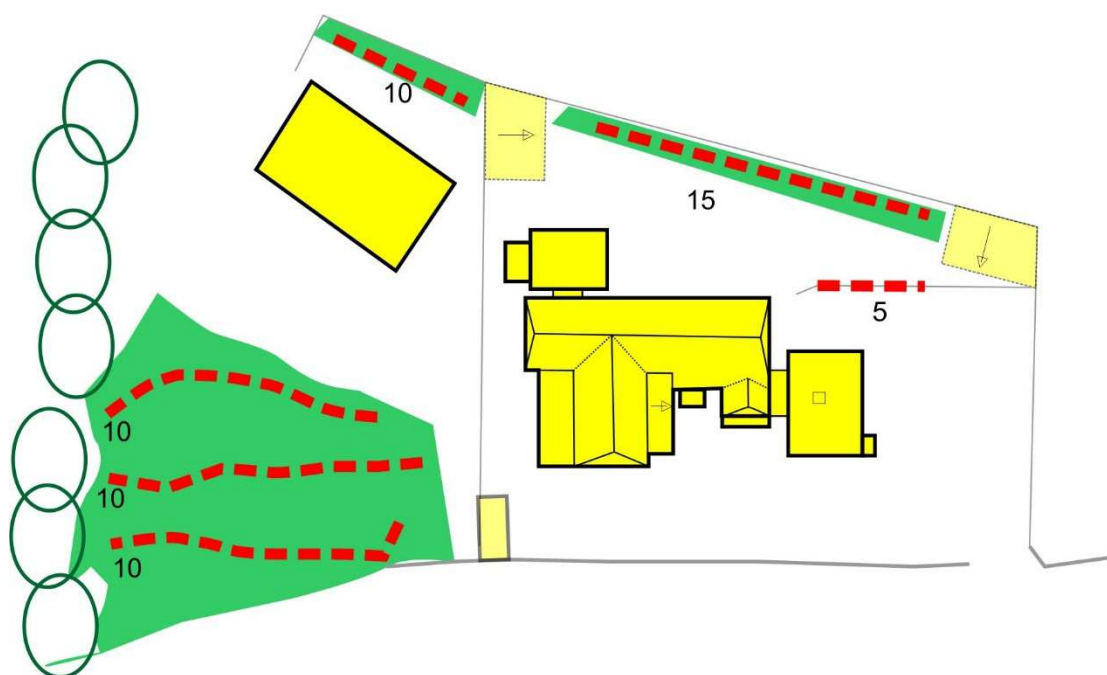
9.6 DNA genotyping: n/a

9.7 other-season bat use- assessment: no “likely” winter bat roost sites were identified.

## 10 other protected spp/ecology

10.1 The proposed new-builds are largely at/on the existing buildings' footprints and the surrounding metalled yards, with the exception of the derelict lawns at the south-west corner\*. The rank grass at these areas, bounded to the west by encroaching bramble and *Salix*, appears to offer suitable herpetile habitat (although it is noted that this is very much a small island that is surrounded by inappropriate woodland and tarmac habitat). Thirty artificial refugia (600x600mm bit. felt squares) were 23<sup>rd</sup> August placed at (strimmed) patches within the grassy area, and these were checked for fauna-under on five dates between 30<sup>th</sup> August- 28<sup>th</sup> September; a further 30 sheets were placed and checked at a narrow, grass and ruderals, border below the north of site retaining wall and at a narrow earthen strip at the centre of the eastern school yard.

\* this area subsequently (2022) removed from the development footprint.



Checks were made during suitable weather periods (eg. sunny intervals, when herps can be expected to seek thermal gain at this late summer/early autumn period): no animals were found at any of the sheets

- 10.2 No bird nesting was found at the site during the May survey visits.
- 10.3 Perimeter walls- c.2-3m high at the north/east walls- are in good repair, with mortar sealed joints offering no intra-masonry herp. access.
- 10.4 The woodland patch to-west is recently planted (as a school-resource, known as a “sensory garden”, and contains a derelict/choked pond.

Daytime walkover was made to identify any potential bat-roost opportunity but none was found at the essentially too small trees, and no bats emerged from this area during the activity surveys.

The proposed development retains this area as-is, and full eco-survey was not made.

## **11 summary/assessment**

- 11.1 No bat roost-use was found, in the “breeding season” and in late summer when individual dispersal-roosting animals are more” likely”, at the to be demolished buildings, which are judged to be unsuitable for bat use.

No bat-related constraint to site development is identified.

- 11.2 No other protected species/ecology interest was identified during this survey, including at systematic reptile survey/search.
- 11.3 To answer the LA’s responsibility for enhancing biodiversity (7.2, above)-
- each new build house incorporates near-apex in-masonry Schwegler FR1 bat boxes at front and rear gables, giving total of 20 roost opportunities; detail of such provision is given at DR Design drawings 577/T1 (two Type 1 houses), 177804 (six Type 2 houses) and CW577/T3 (two Type 3 houses).

Rob Colley  
July 2022