

Report Title	Proposed Demolition of Centre 67, 67 Rhosddu Road, Rhosddu, Wrexham, LL11 2NW – Bat Survey and Bird Assessment
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Quality Assurance

Survey/ Assessment Work Schedule		
Survey/Assessment Type	Surveyors/ Author	Date
Preliminary (Bat) Roost Assessment	Joshua Styles and Jonathan Pescod	18/06/20
Dusk Emergence Surveys	Mr M. Pritchard, Mr J. Pearce, Ms E. Saxon	01/06/20, 15/06/20

Review Schedule				
Issue	Date	Author	Reviewed by	Approved by
1.0	23/06/20	Mr. Joshua Styles	Tom Knight	Tom Knight

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The conclusions and recommended actions provided in this report are specific to the iteration of the proposal detailed in this report. It would no longer be valid should the proposal be changed in anyway, should the report be used for a different proposal at the same site or should it be used a maximum of 12 months after the date of issue.

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1 SUMMARY

It is proposed to demolish Centre 67, Rhosddu, Wrexham. A day-time assessment of the property and adjacent trees with regards bats (referred to as a Preliminary Roost Assessment or PRA) and potential nesting birds was undertaken on Monday 16th March 2020 in order to provide supporting information for the submission of a 'Notice of Intended Demolition'.

The site comprises Centre 67 (Cunliffe House) and associated areas of hard-standing, amenity grassland, and occasional trees. The survey considered the existing building and adjacent trees.

Assessment of the building to be demolished concluded that it can be categorised as offering 'moderate' bat roost suitability in accordance with the current Bat Conservation Trust guidelines (Collins 2016¹). In accordance with these guidelines, two dusk surveys were conducted during June 2020.

The results of the dusk surveys concluded that roosting bats are currently absent at Centre 67.

Roost suitability was also identified in two semi-mature *Aesculus hippocastanum* (Horse Chestnut) trees immediately to the east of the building. It is understood that these trees will not be directly affected during the proposed demolition, however due to their proximity to the building and therefore potential for disturbance (of any bats that might be present) it is recommended that further investigation is undertaken. The identified Potential Roost Features (PRFs) require further investigation to determine the full extent of the rot holes and confirm whether or not they provide roost suitability prior to the start of any proposed works.

Nesting opportunities for common bird species are present throughout the building although no actual evidence of a nest was recorded during the PRA.

¹ Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.

2 INTRODUCTION

Marches Ecology was commissioned by Wrexham County Borough Council (WCBC) to undertake a Preliminary Roost Assessment (PRA) of Centre 67, 67 Rhosddu Road, Wrexham (Approximate OS Grid Ref. SJ 3321851171). Subsequent to the PRA two dusk emergence surveys were completed. It is proposed to demolish these buildings. This report is provided as supporting information to the submission of a 'Notice of Intended Demolition' (*Building Act 1984, Sections 80-83*).

The Preliminary Roost Assessment (PRA) was required to establish the presence or potential presence of roosting bats at Centre 67. As features of potential value for roosting bats were identified during the PRA further surveys were conducted. Potential constraints to the proposal and outline mitigation measures are identified where relevant. If bat/s or their roost/place of rest/shelter is subsequently affected by the work then a European Protected Species Development Licence, issued by Natural Resources Wales (NRW) would be required to proceed with the development.

Legislation relevant to bats is summarised in *Appendix 1* at the end of this report.

The existing building was also investigated and assessed for its suitability to provide nesting opportunities for birds, and if any recent or historic signs of nesting birds exists.

3 PROPOSAL

It is proposed to demolish Centre 67. *Figure 1* below provides the location of the building. No further details regarding future disposal of the site have been provided.

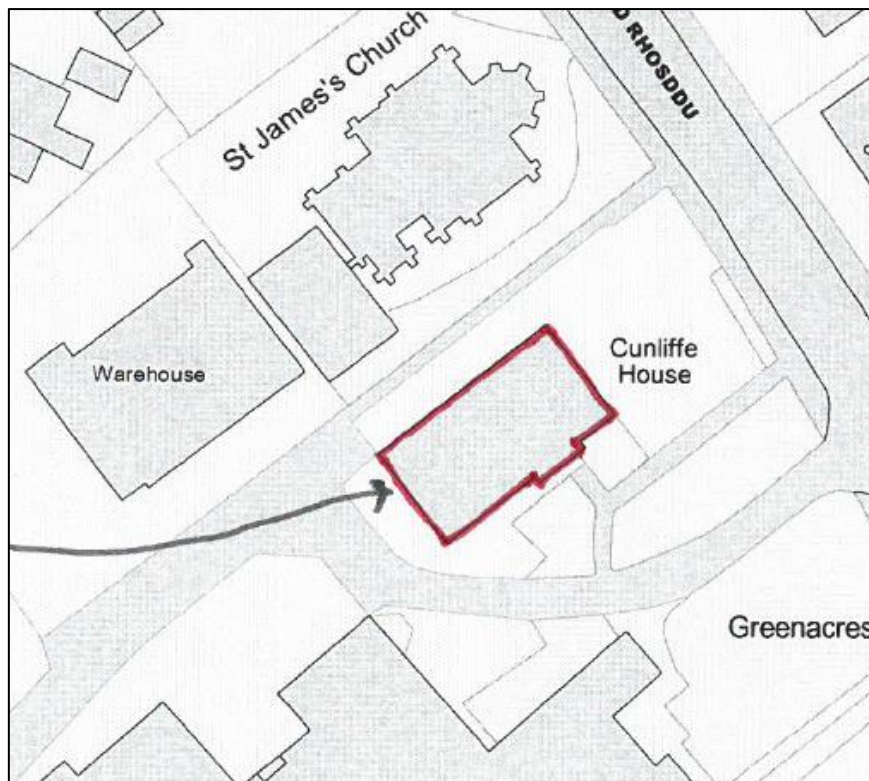


Figure 1: Location plan (Reproduced from plans provided by WCBC using ©MapInfo).

4 SURVEY METHODOLOGY

Preliminary Roost Assessment

The day-time inspection of the building was conducted on the 16th March 2020 by Joshua Styles and Jonathan Pescod. The survey and assessment followed the guidance for a Preliminary (bat) Roost Assessment (PRA) in accordance with the current best practice guidelines (Collins 2016), which state the following:

'The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.'

Taking the above into consideration the survey and interpretation of the findings was undertaken by Joshua Styles. Surveyor credentials are provided in Table 1 below.

Table 1 - Surveyor Credentials (PRA)

Name	Description
Joshua Styles BSc. ACIEEM AMRSB	Ecologist and botanical specialist with a FISC Level 6. Mr Styles is also an accredited agent on the Natural Resources Wales bat license of Mrs. K. Wildling (S086297/1).
Jonathan Pescod BSc. MSc	Experienced ecologist in training with Tyrer Ecological Consultants Ltd. and accredited agent on the Natural Resources Wales bat license of Mrs. K. Wildling (S086297/1).

Centre 67 was inspected for potential places that may be of value to bats and for actual evidence of use (e.g. droppings, prey items, etc). The external elevations were investigated from ground floor level with the aid of a high-powered torch and close focussing binoculars for places that are frequently used by bats as roosts, or ingress points that may provide access into roost chambers. The interior, including loft spaces, was inspected with the aid of a high-powered torch. During the survey the surrounding habitat was evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

Potential suitability of features that may be used by roosting bats was assessed in accordance with the categories provided in Table 4.1 in Collins (2016). The potential roost feature suitability categories are: negligible, low, moderate, high. Bats may use buildings for a range of purposes including summer breeding roosts, hibernation and transitional or temporary roosts.

The results, conclusions and recommendations included in this report are based on a number of factors such as:

- Practical experience of the surveyor;
- Knowledge of bat species relevant to the site location;
- Nature of the immediate and surrounding habitat in relation to foraging opportunities;
- Condition of the structure; and
- Presence/ absence of roost potential and value of roost potential if present.

Bird Assessment

The building and immediately surrounding habitat were assessed for its potential to support nesting birds. Both the interior and exterior elevations of the structure were inspected for historic and current signs of birds which show a high dependency on built structures, e.g. Starling (*Sturnus vulgaris*) and House sparrow (*Passer domesticus*).

The assessment considered the potential for notable birds to be present, including specially protected species such as the Peregrine (*Falco peregrinus*) which is included on *Schedule 1* of the *Wildlife & Countryside Act 1981* (as amended).

Dusk Emergence Survey

Collins (2016) states:

'The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of survey carried out or using alternative methods) are often appropriate.'

Taking the above into consideration the survey protocol was determined by Tyrer Ecological Consultants Ltd based on extensive experience, consideration of the character of the building/ complexity of the structure, the species anticipated to be present at the building or in the local area, and ease with which observations could be made.

At Centre 67, the features of bat roost potential present no problems for dusk observations; if a building is complex or observations were restricted or species that are difficult to detect at dusk are suspected, then dawn surveys would have been conducted. At Centre 67 there is no evidence to suggest breeding or regular use by such species. It should also be noted that dawn temperatures are usually lower than at dusk, consequently bat activity can, in some locations, be less frequent.

The PRA concluded that the building offers moderate roost suitability in accordance with Collins (2016). Table 7.3 in Collins (2016, *op. cit.*) (reproduced as Figure 2 below) recommends that for a structure with moderate roost suitability 'two separate survey visits' should be undertaken, comprising 'one dusk emergence and a separate dawn re-entry survey' (extract reproduced as Figure 3 below). However, in this instance, due largely to the uncomplicated layout of the structure and that all parts of the structure that offer roosting potential could be easily viewed, it was felt that two dusk emergence survey visits were more appropriate. Two surveyors were used on each visit.

Table 7.1 Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September ^a with at least one of surveys between May and August ^b	May to September ^a with at least two of surveys between May and August ^b

Figure 2.

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

Figure 3.

The dusk surveys were conducted during the main breeding season of bats (May-August). Collins (2016) states that '*The bat active period is generally considered to be between April and October inclusive*'. In general:

- Surveys conducted in August to October may detect mating bats.
- Surveys conducted in September and October may detect transitional roosts which are used after bats have dispersed from maternity colonies but prior to hibernation.

The dusk survey visits were undertaken during June 2020 by a combination of two highly competent surveyors (Listed below in Table 2). The number of surveys and surveyors are considered adequate relative to the roost potential that has been identified *i.e.* 'moderate' and further informed by the results of the PRA.

Table 2 - Surveyor Credentials (Dusk Emergence Surveys)

Name	Description
Mr. M. Pritchard	Multiple protected species licensed FISC Level 3 ecologist and accredited agent on NRW bat licence of Ms. Kylee Wilding (licence no. S086297/1).
Mr. J. Pearse	A seasonal ecologist with experience of undertaking professional bat surveys.
Ms. E. Saxon	A seasonal ecologist with experience of undertaking professional bat surveys.

During each of the survey visits, the surveyors were positioned to allow unrestricted views of the areas of roost potential and potential access/ ingress points as previously identified in the PRA. The surveys were aided with Anabat electronic detectors to locate and record the high frequency calls that are emitted by bats. Echolocation calls were then analysed with computer software to verify field observations.

5 SURVEY CONSTRAINTS

The day-time inspection (PRA) was conducted in early March. The optimum time to investigate a structure for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time. The results of such inspections can in some instances be inconclusive, for example where it has not been possible to inspect a feature in detail.

Similarly, the inspection/ assessment for birds was conducted outside the main breeding season. Evidence of previous nesting can be located outside this period (*i.e.* disused nests and faecal staining outside a nest entrance). However, current nesting could not be confirmed.

No access restrictions were experienced that may have prevented a full inspection and assessment of the building.

No survey constraints were identified during the dusk emergence surveys.

Taking into consideration the above it is deemed that there were no significant survey constraints that would prevent the gathering of information on which to base conclusions and recommendations.

6 SURVEY RESULTS

Bats in North Wales

Up to eleven bat species have been recorded in North Wales, most of which use built structures, notably occupied residential properties for roosting. The most frequently encountered species is the Common Pipistrelle (*Pipistrellus pipistrellus*); its abundant status in North Wales is reflected throughout the UK.

A data search for local bat records was not undertaken as a sufficient level of information on which to establish the potential use of the site by bats could be gathered during the day-time visit. The 'UK Guidelines for Accessing and Using Biodiversity Data' (CIEEM, 2016²) state: '*where the development site is limited to a single building or is otherwise very small and comprises structures of low potential value for bats, data searches may be of limited value in terms of the information they can provide*'.

Habitat Assessment

Centre 67 is located off Rhosddu Road approximately 1.0 km north of Wrexham town centre. The immediate habitat is dominated by areas of residential and commercial development with associated infrastructure, sporadic green spaces and play areas. Occasional trees are also present in the vicinity of the survey site.

The wider landscape incorporates expanses of continuous development, interspersed with areas of woodland and pasture. Gatewen Marsh SSSI is located approximately 2.5 km to the west. The habitat present close to the site and in the wider landscape are considered to be of low-moderate potential value for bats. Where high quality habitat is present close to buildings this increases the likelihood that they may be used by bats should roost opportunities be available and accessible.

The location of Centre 67 and the immediate surrounding habitat is shown on the aerial photograph below (*Figure 4*).

² CIEEM (2016). *UK Guidelines for Accessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM).

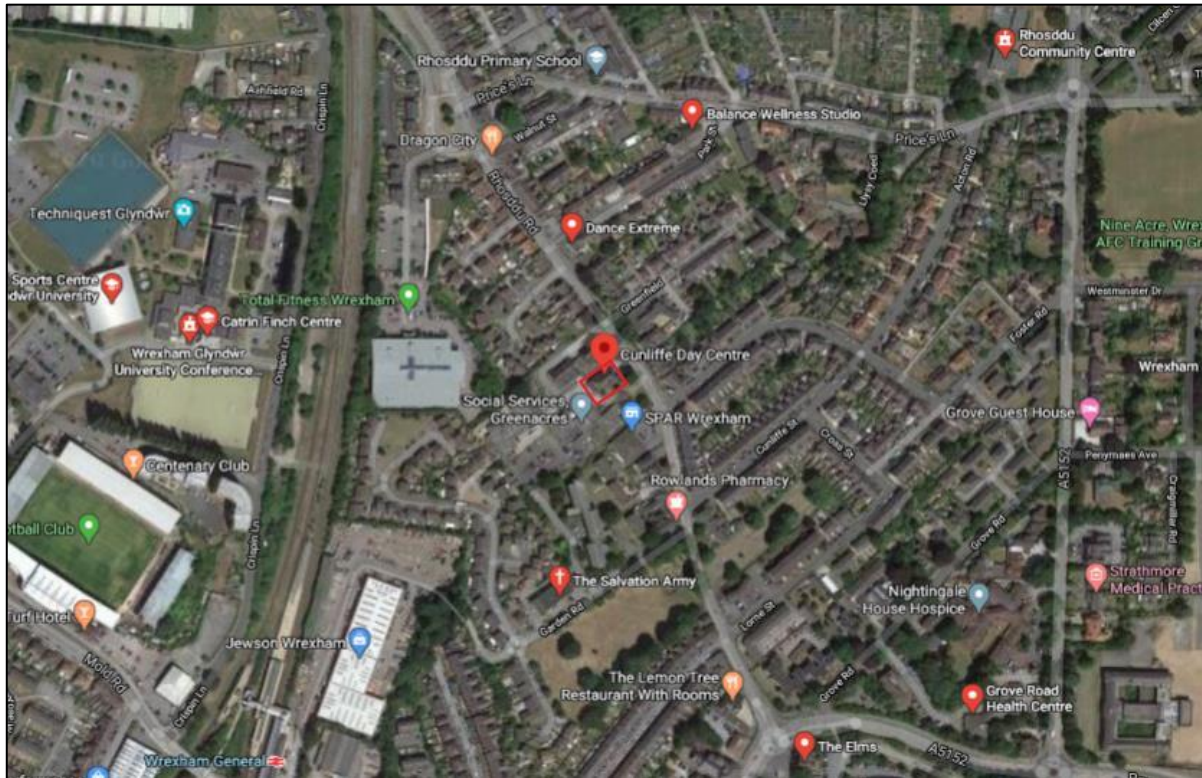


Figure 4: Location of Centre 67 within the immediate habitat (Source: Google Maps 2020)

Preliminary Roost Assessment

Centre 67 is a two-storey stone-built structure with hipped slate roof that is currently vacant and redundant from its previous purpose as a day centre. On the day of the survey, it was found to be aesthetically degraded condition. The building is to the approximate dimensions of 20 m long x 12 m wide x 10 m high. It is surrounded by hard-standing comprising of car parks and footpaths, and areas of amenity grassland.

Internally a loft space is present to approximate dimensions of 18 m long x 9 m wide and 3 m high. The loft space is divided into two sections by an internal brick wall. During the inspection it was found to be partially illuminated due to a small window located in the south-east elevation. Whilst the loft dimensions would be suitable for loft dwelling bats such as Long Eared or Horseshoe bats, illuminated loft spaces are generally avoided by both species. Furthermore, the immediate built up environment does not provide the preferred habitat features suitable for foraging/ commuting favoured by either species. No evidence of bats was recorded in the loft space.

Neither roofing underfelt nor any other underlining exists beneath the roof slates. Where present, these materials may significantly increase the probability of occupancy by crevice-dwelling bat species such as the Common pipistrelle (*Pipistrellus pipistrellus*), whereby bats are able to roost between external roof coverings and underfelt, provided external access exists. The underside of the slates is instead finished in lime mortar, which has sealed the majority of gaps between the roof slates. No evidence of crevice-dwelling bat species was found during the loft inspection. However, it should be noted that evidence of crevice-dwelling bats is not always apparent as roosts are often concealed within the fabric of a building.

The external assessment of the building revealed that ingress opportunities for bats are present to all elevations in the form of gaps under the hip tiles, under loose/ lifted roof slates and along the eaves line of the entire building. A potential point of ingress is also present in the form of a gap within the

stone work above the window at the south-east elevation. It is also possible that further Potential Roost Features (PRFs) may be obscured by the *Hedera hibernica* (Atlantic Ivy) lining the north-west face of the structure. In accordance with the current BCT survey guidelines the PRFs that have been identified at Centre 67 are categorised as providing 'moderate' roost suitability.

There are two semi-mature *Aesculus hippocastanum* (Horse Chestnut) trees located to the east and south-east of Centre 67 (see Figure 5 below). Tree T1 is approximately 8 m from the building whilst T2 is approximately 12 m away. Rot-holes were identified at 2.5 m height (T1) and 3.5 m height (T2) but from ground level the extent of the rot-holes could not be ascertained.

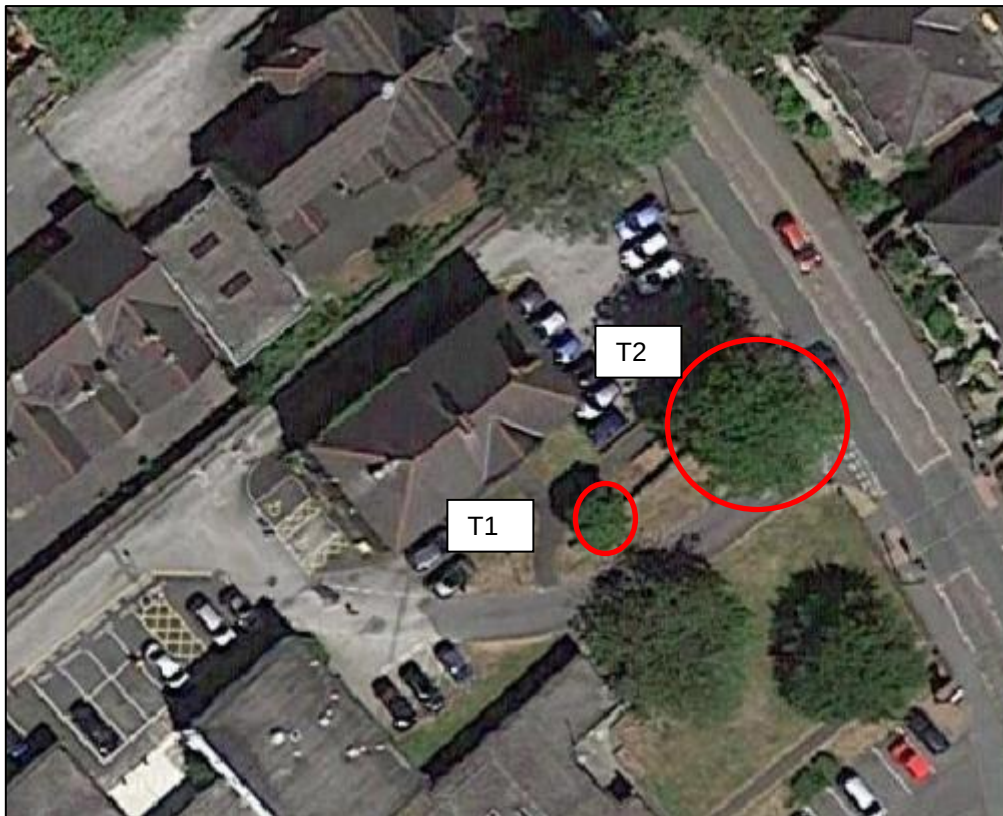


Figure 5: Positions of two Horse Chestnut trees at the site.

Nesting Bird Assessment

A number of features that provide opportunities for birds which nest in/ on buildings (e.g. House sparrow, Starling and Swift (*Apus apus*)) were identified in the building. These features include gaps under hip tiles and at eaves level, and the Ivy on the south-east elevation. The adjacent trees could provide nesting places for common passerine birds. Although no evidence of historical or current nesting was identified during the inspection, the survey was carried out early in the nesting period and as such it is considered possible that nesting birds may use the building/ trees at a later date to that of the survey.

As the building lacks suitable ledges or other viable nesting platforms it is considered unsuitable for the breeding requirements of the Peregrine, and no evidence of such species was identified.

Site Photographs



Plate 1: South-east elevation of Centre 67 showing loft window



Plate 2: North-east elevation



Plate 3: North-west elevation with Ivy



Plate 4: Condition of the loft space showing the window



Plate 5: T2 Horse Chestnut with rot-hole circled



Plate 6: T1 Horse Chestnut with rot-hole circled

Dusk Emergence Survey

Table 3 provides the weather conditions on each of the dusk survey visits, and Table 4, and Figures 6-7 provide the results.

Table 3 – Weather Conditions

Visit	Date	Sunset time	Start temp.	End temp.	General weather conditions
1	01/06/20	21.29 hrs	18°C (21.05 hrs)	17°C (22.50 hrs)	Dry, calm, 15% cloud cover.
2	15/06/20	21.40 hrs	17°C (21.20 hrs)	15.5°C(23.00hrs)	Sporadic light rain, light air, 80% cloud cover.

Table 4 – Results

Visit	Date	Results
1	01/06/20	Summary: No bat emergence from building for the duration of the survey. 21.56 hrs: a Common Pipistrelle foraged along the building to the north of the site. 22.04 hrs: a Noctule (<i>Nyctalus noctula</i>) commuted over the building to the north of the site. Activity on the site was low throughout the dusk survey with foraging by a Common Pipistrelle bat and commuting by a Noctule bat.
2	15/06/20	Summary: No bat emergence from building for the duration of the survey. 22.09 hrs: a Common Pipistrelle foraged around the trees to the north-east of the site. Activity on the site was low throughout the dusk survey with foraging by a Common Pipistrelle bat.

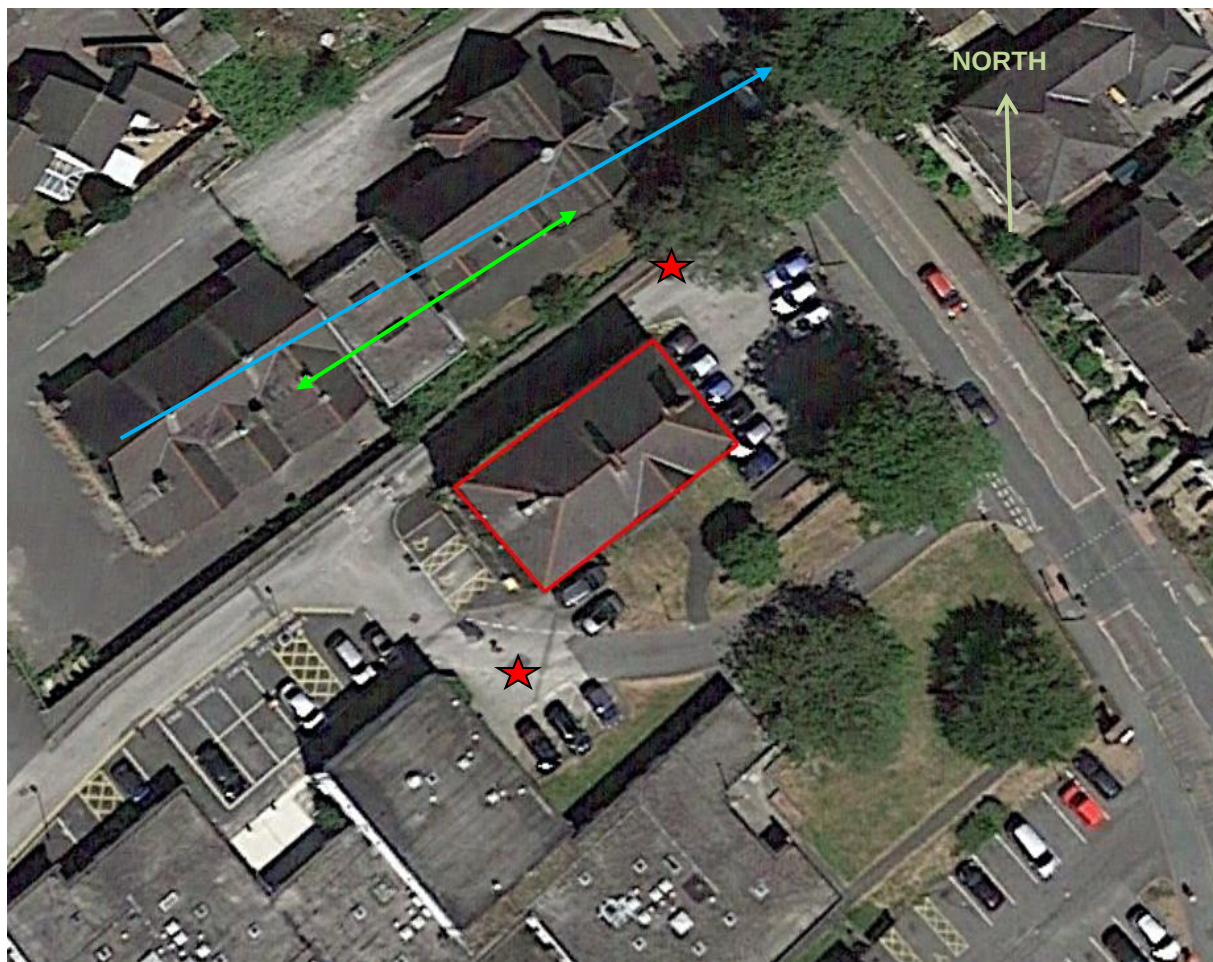


Figure 6: Summary of dusk emergence survey (01/06/20)

Key	
	Survey building
	Surveyor positions
	Common Pipistrelle foraging activity
	Noctule commuting activity

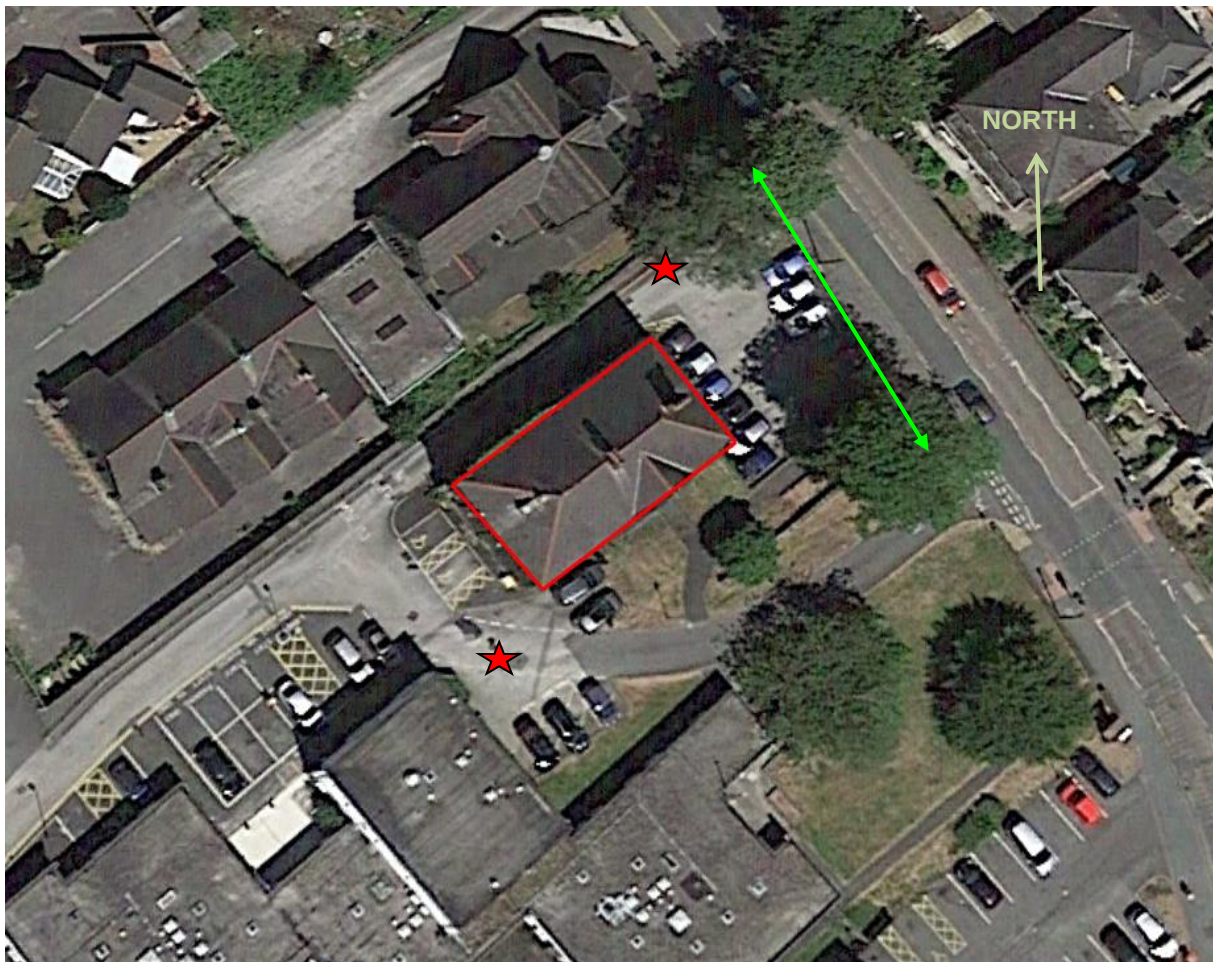


Figure 7: Summary of dusk emergence survey (15/06/20)

Key	
	Survey building
	Surveyor position
	Common pipistrelle foraging activity

7 CONCLUSIONS

Bats

No physical evidence was identified during the inspection that would suggest recent or historic presence of loft-dwelling or crevice-dwelling bat species such as the Brown Long-eared (*Plecotus auritus*) or Pipistrelle (*Pipistrellus* sp.). On the basis of available PRFs, Centre 67 was categorised as providing 'moderate' roost suitability. Two dusk emergence surveys were undertaken during June 2020.

No bats were recorded emerging from Centre 67 during the dusk surveys. Foraging and commuting activity by Common Pipistrelles and one Noctule around the site was minimal throughout the dusk surveys.

Nesting Birds

Nesting opportunities were identified throughout Centre 67 to all aspects including gaps under hip tiles and under the eaves. No evidence of current or historic use was identified during the inspection however this does not discount use of the building by nesting birds at a later date to that of the survey. The building is considered unsuitable for the breeding requirements of Schedule 1-listed species, and no evidence of such species was identified.

8 RECOMMENDATIONS

Bats

No further survey for bats is considered necessary at this time. Should the demolition not be implemented within 12 months of the date of the inspection/ surveys then it may be necessary to repeat the inspection/ surveys of the building (prior to any works commencing).

The PRA concluded that Centre 67 provides moderate roost suitability. No bats were recorded emerging from the building during the dusk emergence surveys. Based on the findings of the survey it is not necessary to obtain a European protected species licence from Natural Resources Wales.

As bats are a highly transient species group that can use buildings that offer potential roost features at any time of the year, all site workers should be made aware of the potential for bats to be present in the building. If bat(s)/ evidence of bats (see *Figure 8* below) are found at any time during the proposed development all work at the site should immediately cease and a suitably qualified bat ecologist should be contacted for further advice. The work should not re-commence until this has been confirmed by the ecologist.

If bat(s) or their roost will be affected by any works then a European Protected Species mitigation licence will be required to legally continue with the work. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation.

In order that any future development achieves biodiversity net gain in accordance with current national planning policy it is recommended that enhancement for bats is incorporated into any future proposal for the site, as per *Appendix 2*.



Figure 8: Bat droppings (left) and Pipistrelle bat (right)

It is understood that the trees (T1 and T2) to the east of the building will not be directly affected during the proposed demolition, however due to their proximity to the building and therefore potential for disturbance (of any bats that might be present) it is recommended that further investigation is undertaken. Prior to the proposed demolition work the identified Potential Roost Features (PRFs) require further investigation to determine the full extent of the rot holes and confirm whether or not they provide roost suitability or bats/ evidence of bats is present.

Birds

The destruction of any bird nests that are in use is illegal. As nesting opportunities have been identified in Centre 67 it is recommended that all demolition works are undertaken outside the nesting bird season (March-August inclusive). If it is not possible to undertake the demolition works outside the nesting season all features that provide nesting opportunities should be checked by a suitably qualified ecologist prior to commencement of works. If any active nests are found at this time a buffer zone (determined on the basis of the species concerned and the location of the nest in the context of the surrounding vegetation, but no less than 5 m) should be retained until it can be ascertained that the chicks have left the nest. The buffer zone should be appropriately fenced and signed.

Enhancement suggestions for birds for any future proposed development are provided in *Appendix 2*.

APPENDIX 1 – LEGISLATION

Bats

All species of British bat are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. They are also listed as European Protected Species on *Schedule 2* of *The Conservation of Habitats and Species Regulations 2017* which gives them full protection under *Regulation 42(1)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRow Act 2000).

Under the above legislation it is an offence to intentionally or recklessly:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

Several species of bat are included on *Section 7* of the *Environment Act 2016*.

All species of British bat are also protected under *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). This protection relates specifically to trapping and direct pursuit of the species.

Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the *CRow Act 2000*.

The legislation makes it an offence to intentionally or recklessly:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The legislation confers special penalties where the above mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

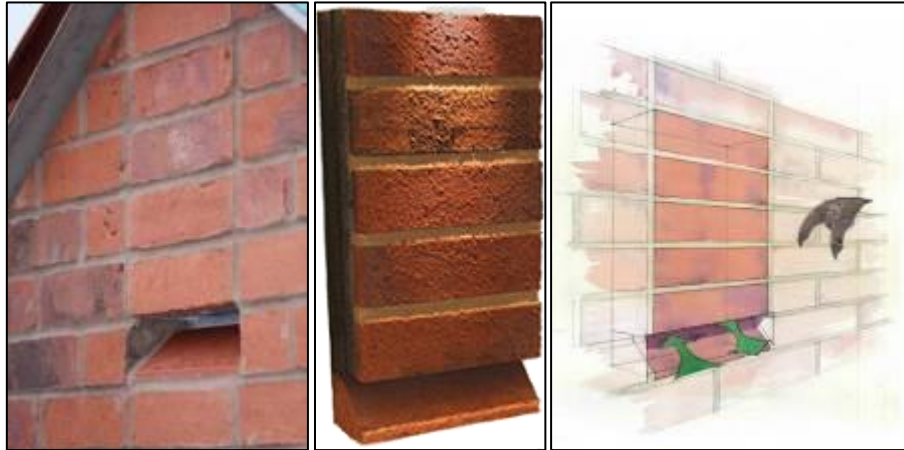
Section 7 of the *Environment Act 2016* includes several birds.

APPENDIX 2 – ENHANCEMENTS FOR BATS AND BIRDS

Bats

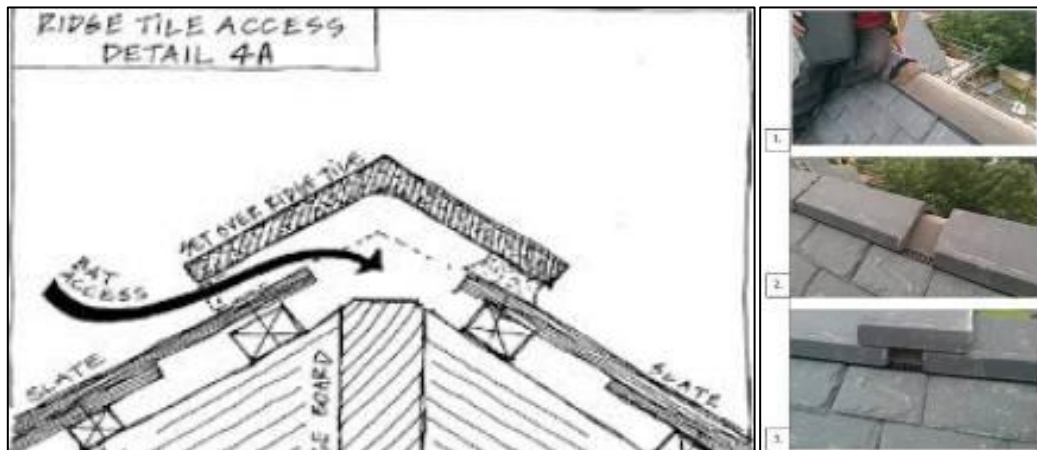
Integrated Bat-box

The Habibat Bat-box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



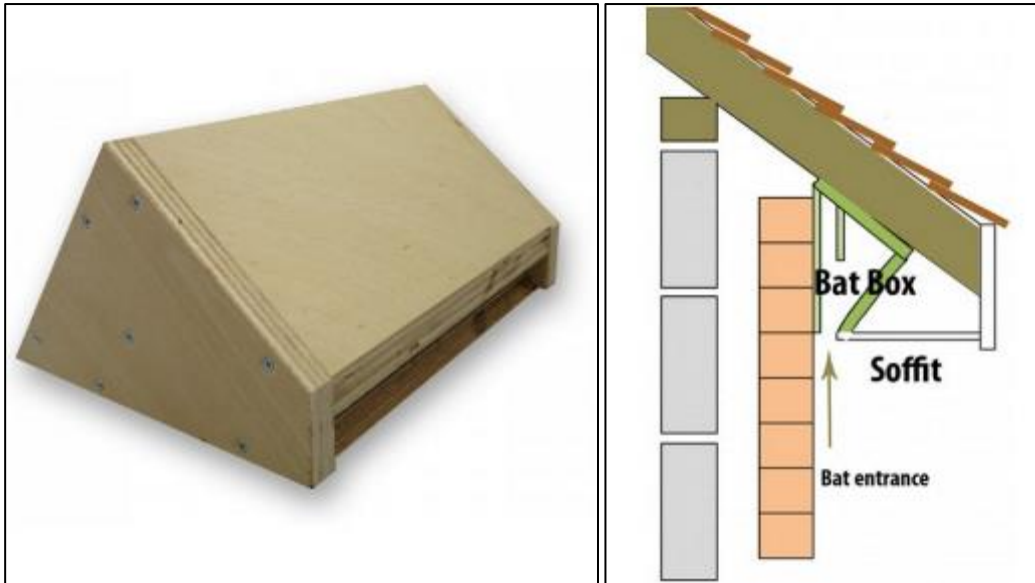
Ridge Access

Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Soffit access

Where soffits are installed at gable elevations, roost provision may be provided in the form of a soffit bat-box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.



Birds

House Sparrow

The Sparrow Terrace has been designed to help re-dress the balance of falling House Sparrow numbers. The current UK population is half what it was in 1980 and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families.

The terrace comes in two colours and can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for most types of buildings.



Blue/ Great Tit

This nest-box should be hung on trees 3-4 m off the ground.

NB; Bird nest-boxes should be located on a cool aspect (north-east to avoid overheating).

