

**CO-OP PETROL STATION, HIGH
STREET, COEDPOETH, WREXHAM**

**PRELIMINARY BAT ROOST
ASSESSMENT**

A Report to: Williams Southern Ltd

Report No: RT-MME-127752-03

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development".

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	27/04/2018	Anna Evans MSc (Ecological Project Officer)	Ellie Rickman MCIEEM (Senior Ecological Consultant)	Dr Philip Fermor CEnv MCIEEM (Managing Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, it may be necessary to undertake an updated survey to allow any changes in the status of bats on site to be assessed, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

Middlemarch Environmental Ltd was commissioned by Williams Southern Ltd to undertake a Preliminary Bat Roost Assessment of the site of a proposed development at the Co-op foodstore and petrol station on High Street in Coedpoeth, near Wrexham in Wales. This assessment is required to inform a planning application associated with the demolition of the buildings present on site to facilitate construction of a new foodstore.

To fulfil the above brief to assess the potential for the existing buildings on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 23rd April 2018.

Very few features were recorded on building B1 (the Co-op foodstore and petrol station) which could be utilised by bats to gain entry into the building and potential roost locations. Some small gaps were noted between the walls and the barge boards and frontages. These features were all fully inspected and no evidence of bats was recorded. Building B1 was concluded to hold negligible bat roost potential.

A number of features were recorded on building B2 (Afallon) which could provide access into the building and potential roost features. These included gaps under ridge and hip tiles, lifted roof tiles, missing verge mortar, gaps between the boxed eaves and the walls and gaps between the boards on the mock tudor roof gable feature. In addition, three pipistrelle-type bat droppings were recorded on the roof of the rear kitchen extension and its adjacent coal store. No further evidence of bats was recorded however it was not possible to fully inspect all of the identified features due to the height at which they were located. As such it was not possible to establish if bats had used these features to enter a roost location at the time of surveying.

Internally, it was not possible to fully inspect all features within the loft space e.g. the area between the felt sarking and roof tiles within the north-western extension and as such the bat roosting potential of this area could not be determined. Due to the presence of potential roost features which could not be fully inspected and the presence of a small number of bat droppings, building B2 was concluded to hold high bat roost potential.

The proposed demolition of building B2 therefore has the potential to disturb or destroy any roosts present within the features identified and potentially injure or kill any bats present at the time, in contravention of the legislation relating to bats.

Following the results of the Preliminary Bat Roost Assessment, the following recommendations have been made:

R1 Building B2: Afallon

This building has been identified as having high potential to support roosting bats. Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016) recommends that for structures with high bat roosting potential at least three dusk emergence and/or dawn re-entry surveys be undertaken during the bat emergence/re-entry survey season to determine the presence/absence of roosting bats within the structure. The bat emergence/re-entry survey season extends from May to September. At least two of the surveys should be undertaken during the peak season for emergence/re-entry surveys between May and August and one of the three surveys should be a dawn re-entry survey. If a roost is discovered during these surveys, a Natural England licence application may be required.

R2 Building B1: Co-op Foodstore

This building was fully inspected and no bat roosts were identified. This building had no potential for roosting bats. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed structure have not commenced within this timeframe it will be essential to update the survey effort to establish if suitable features have developed and if bats have colonised the structure in the interim. In the unlikely event that a bat is found during demolition works all works must immediately cease and a suitably qualified ecologist should be contacted.

CONTENTS

1. INTRODUCTION	4
1.1 PROJECT BACKGROUND	4
1.2 SITE DESCRIPTION AND CONTEXT	4
1.3 DOCUMENTATION PROVIDED	4
2. METHODOLOGY	5
2.1 DESK STUDY	5
2.2 FIELD SURVEY	5
3. DESK STUDY	7
3.1 STATUTORY NATURE CONSERVATION SITES	7
3.2 SPECIES RECORDS	7
4. SURVEY RESULTS	8
4.1 INTRODUCTION	8
4.2 CONSTRAINTS	8
4.3 SURVEY RESULTS	8
4.3.1 Building B1 (Co-op Foodstore)	8
4.3.2 Building B2 (Afallon)	10
4.4 SITE AND SURROUNDING HABITATS	13
5. DISCUSSION AND CONCLUSIONS	14
5.1 SUMMARY OF PROPOSALS	14
5.2 ASSESSMENT OF BUILDINGS	14
5.2.1 Building B1: Co-op Foodstore	14
5.2.2 Building B2: Afallon	14
5.3 POTENTIAL IMPACTS ON BATS	14
6. RECOMMENDATIONS	15
7. DRAWINGS	16
REFERENCES AND BIBLIOGRAPHY	18
APPENDIX 1	19

1. INTRODUCTION

1.1 PROJECT BACKGROUND

In March 2018, Williams Southern Ltd commissioned Middlemarch Environmental Ltd to undertake a Preliminary Bat Roost Assessment at the Co-op foodstore and an adjacent residential property on High Street in Coedpoeth, Wrexham. This assessment is required to inform a planning application associated with the demolition of the existing buildings and the construction of a new supermarket building in the north of the site, with car parking provision to the south and east.

In addition, Middlemarch Environmental Ltd has been commissioned to undertake a Pre-Development Arboricultural Survey and Preliminary Ecological Appraisal at this site, and the details of these surveys can be found in Reports RT-MME-127752-01 and -02, respectively.

To fulfil the above brief to assess the potential for the existing buildings on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 23rd April 2018.

All UK bat species are European protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included within Appendix 1. This section also provides some brief information on the ecology of British bat species.

1.2 SITE DESCRIPTION AND CONTEXT

The survey area was a flat, "L" shaped parcel of land of approximately 0.16 ha in size, located within a predominantly residential area on High Street in Coedpoeth, to the west of Wrexham in Wales, at Ordnance Survey Grid Reference SJ 28089 51445.

At the time of the survey, the site was dominated by the Co-op foodstore and hardstanding petrol station forecourt, with associated car parking, whilst an adjacent residential property was included at the north-western corner of the site. Small areas of introduced shrubs and scattered trees were also present around the boundaries of the site, along with lengths of fencing and wall.

The north-eastern boundary of the study area was delineated by High Street, beyond which was a residential area. To the south-east there was a row of residential properties, to the south-west it bordered the residential properties of Bryn-y-Wern, whilst to the north-west lay a residential area along Smelt Road.

The surrounding area consisted of mainly residential housing and gardens; whilst the wider landscape was dominated by agricultural fields, with the River Clywedog in a wooded valley present just under 250 metres to the south-west.

1.3 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Existing Site Plan (Drawing 6036(P)502)	Archer Architects
Proposed Site Plan (Drawing 6036(P)503)	Archer Architects

Table 1.1: Documentation Provided by Client

2. METHODOLOGY

2.1 DESK STUDY

As part of the Preliminary Ecological Appraisal (Report RT-MME-127752-02) an ecological desk study (which included a search for records of bats) was undertaken within a 1 km radius of the site. The consultees for the desk study were:

- Natural Resources Wales (NRW) – Protected Sites and Landscapes Map;
- Natural England - *MAG/C* website for statutory conservation sites;
- Cofnod – North Wales Environmental Information Service.

Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by these organisations. Relevant bat data are discussed in Chapter 3. In compliance with the terms and conditions relating to its commercial use, the full desk study data are not provided within this report.

The desk study included a search for statutory nature conservation sites designated for bats within a 10 km radius of the site.

2.2 FIELD SURVEY

In line with the specifications detailed in Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), a Preliminary Bat Roost Assessment of the buildings was conducted during daylight hours. A visual assessment was undertaken to determine the presence of any Potential Roost Features (PRFs), together with a general appraisal of the suitability of the site for foraging and commuting. Table 2.1 provides examples of PRFs. Any accessible PRFs were inspected using binoculars, a torch and endoscope for evidence of possible bat presence. Buildings were surveyed externally and internally.

For reasons of health and safety, the survey was only undertaken in areas accessible from 3.5 m ladders.

Based on the PRF's present, the survey area was assessed using the suitability classes detailed within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), as detailed in Table 2.2.

Example of Potential Roost Features	
<u>Externally</u>	• Access through window panes, doors and walls; • behind peeling paintwork or lifted rendering; • behind hanging tiles; • weatherboarding; • eaves; • soffit boxes; • fascias; • lead flashing; • gaps under felt (even including those of flat roofs); • under tiles/slates; • existing bat and bird boxes; and • any gaps in brickwork or stonework permitting access into access to cavity- or rubble-filled walls.
<u>Internally</u>	• behind wooden panelling; • in lintels above doors and windows; • behind window shutters and curtains; • behind pictures, posters, furniture, peeling paintwork; • peeling wallpaper, lifted plaster and boarded-up windows; • inside cupboards and in chimneys accessible from fireplaces. • within attic voids: • the top of gable end or dividing walls; • the top of chimney breasts; • ridge and hip beams and other roof beams; • mortise and tenon joints;

- all beams (free-hanging bats);
- the junction of roof timbers, especially where ridge and hip beams meet;
- behind purlins;
- between tiles and the roof lining; and
- under flat felt roofs.

Table 2.1: Potential Roost Features (Adapted from Collins, 2016)

Suitability	Description
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Negligible	Negligible habitat features on site likely to be used by roosting bats.

Table 2.2: Classification of Structures with Bat Potential (Adapted from Collins, 2016)

3. DESK STUDY

3.1 STATUTORY NATURE CONSERVATION SITES

The site is not located within 10 km of any statutory nature conservation sites designated for the presence of bats.

3.2 SPECIES RECORDS

The data search was carried out in March 2018 by Cofnod (North Wales Environmental Information Service). Records of bat species within a 1 km radius of the survey area provided by the consultee are summarised in Table 3.1. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation / Conservation Status
Mammals (bats)					
Common pipistrelle <i>Pipistrellus pipistrellus</i>	2	2003	390 m east	-	ECH 4, WCA 5, WCA 6
Lesser horseshoe bat <i>Rhinolophus hipposideros</i>	18	2012	250 m south-east	✓	ECH 2, ECH 4, WCA 5, WCA 6, LBAP
Key: #: Dependent on species. ECH 2: Annex II of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation. ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection. WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods. Species of Principal Importance: Species of Principal Importance for Nature Conservation in Wales. LBAP: Species listed on the Wrexham Biodiversity Action Plan. Note. This table does not include reference to the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), the Bonn Convention on the Conservation of Migratory Species of Wild Animals or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).					

Table 3.1: Bat Species Records Within 1 km of Survey Area

4. SURVEY RESULTS

4.1 INTRODUCTION

The Preliminary Bat Roost Assessment was conducted on 23rd April 2018 by Ellie Rickman BSc (Hons), MSc, MCIEEM (Senior Ecological Consultant). Drawing C127752-02-01, illustrating the layout of the buildings on site is provided in Chapter 7.

Weather conditions were recorded and are presented in Table 4.1.

Parameter	Conditions
Temperature (°C)	13
Cloud Cover (%)	60
Precipitation	Dry
Wind Speed (Beaufort)	F2

Table 4.1: Weather Conditions During the Preliminary Bat Roost Assessment

4.2 CONSTRAINTS

No significant constraints were experienced however some of the identified external features on building B2 were too high to fully inspect, whilst the area between the tiles and felt sarking on the pitched extension of this same building could not be inspected.

4.3 SURVEY RESULTS

4.3.1 Building B1 (Co-op Foodstore)

External Assessment

The Co-op foodstore was a single storey building with a 2-storey rear extension housing office facilities. The front (north-eastern) elevation comprised a brick wall with corrugated metal frontage at the top (Plate 4.1). The brickwork was intact and in good condition however a large, 8 centimetre gap was present between the frontage and the wall behind (Plate 4.2). This was fully inspected, with no evidence of bats recorded and the gap was considered to be too large to be suitable for bats to roost in.

The attached petrol forecourt canopy was constructed from corrugated plastic and metal (see Plate 4.1) and was concluded to hold negligible bat roost potential.



Plate 4.1: B1 - North-Eastern Elevation, Showing Foodstore and Forecourt Canopy



Plate 4.2: B1 – North-Eastern Elevation, Gap Between Wall and Metal Frontage



**Plate 4.3: B1 – North-Western Elevation
Showing Gaps Under Corrugations**



Plate 4.4: B1 – South-Eastern Elevation

On the north-western side of the building felt was present over a corrugated metal roof which had a shallow pitch. Gaps were present under the corrugations and these may provide access to the void above the suspended ceiling of the food store.

The south-eastern elevation of the building (Plate 4.4) was constructed of breeze blocks covered with peeling render. No potential roost features were recorded associated with the walls. The roof of this elevation comprised corrugated metal with a shallow pitch and again no potential roost features were recorded associated with this.

The rear (south-western) elevation comprised the two-storey office section with a flat roof (Plates 4.5 and 4.6). This was again constructed of breeze block and render, which was generally in good condition with no potential roost features recorded. At the southern corner some sections of barge board were present at the top of the wall (see Plate 4.5) and gaps were present under these, however they were fully inspected and were found to be cobwebbed, and showed no evidence of use by roosting bats.



**Plate 4.5: B1 – South-Western Elevation,
Southern Corner, Showing Barge Board**



**Plate 4.6: B1 – South-Western Elevation,
Northern Corner**

A small number of features were recorded around the building which could be utilised by bats to gain entry into the building and potential roost locations. These comprised gaps between the walls and the barge boards and frontages, as well as gaps under the metal roof corrugations. These features were all fully inspected and were found to be cobwebbed or unsuitable for bats. No evidence of roosting bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the external assessment of the building.

Internal Assessment

Internally, doors were present to the roof space (Plates 4.7 and 4.8), which comprised a metal corrugated roof over a metal frame, half of which was under-laid with boarding. At the rear of the building the roof was comprised of asbestos-type corrugated material over the same metal frame, with a suspended ceiling below. Corrugated metal was present over the top of the asbestos roof and a slight gap was present between the layers. The gap and the roofspace were inspected and noted to be clear, with no evidence of bat droppings. No light was visible at the eaves suggesting no access points from the outside were present.



Plate 4.7: B1 – Roof Space



Plate 4.8: B1 – Further View of Roof Space

No evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building and all areas of the loft could be fully surveyed. The building was considered to have negligible bat roost potential.

4.3.2 Building B2 (Afallon)

External Assessment

Afallon was a two-storey brick built residential property with a pitched and hipped clay-tiled roof (Plate 4.9).



Plate 4.9: B2 – North-Eastern Elevation



Plate 4.10: B2 – Gaps Under Ridge Tiles

The ridge and roof tiles were flat to the roof and generally in good condition and well-sealed, with no missing, broken or lifted tiles; however some gaps were present below the ridge tiles (Plate 4.10) which could not be inspected due to the height at which they were located. It was considered unlikely that the gaps would provide access into the loft space however they could provide crevice roosting opportunities. Gaps were also present below the hip tiles and some verge mortar was missing at the northern corner. Again, these features could not be fully inspected due to the height at which they were located.

A chimney stack was present on the south-eastern roof pitch. Some mortar was missing between the bricks of the chimney (Plate 4.11) however most of the gaps did not appear to extend into the brickwork.



Plate 4.11: B2 – Missing Mortar on Chimney



Plate 4.12: B2 – Boxed Eaves and Gable Feature

The eaves of the roof were boxed (Plate 4.12) and a gap was noted between the boxing and the wall on the rear (south-western) elevation. Again this could not be fully inspected due to the height at which it was located.

On the front (north-eastern) elevation of the house a small gable roof with a mock tudor gable end was present over the first floor bow window (see Plate 4.12). House sparrows were recorded to be nesting within this feature and slight gaps were noted between the boards.

The walls were constructed from red brick and were noted to be in good condition and well-sealed, with no potential roost features present.



Plate 4.13: B2 – Hanging Tiles Between Bay Windows



Plate 4.14: B2 – North-Western Extension With Barge Boards

Hanging tiles were present between the bow windows on the ground floor and first floor (Plate 4.13). These were well-sealed, with only very narrow gaps present at the base.

A small, single-storey linear extension was present on the north-western elevation of the building (Plate 4.14). This had a half-pitched roof of slate tiles which were lined internally. The roof was generally in good condition however one tile was noted to be slightly lifted, creating a potential access point below the tile. Wooden barge boards were also present on the north-eastern gable end of the extension (see Plate 4.14) however they were tight to the wall.

A single storey kitchen extension was present on the south-western elevation of the building (Plate 4.15). This had a pitched roof with a brick gable end, overlapping clay ridge tiles and slate roof tiles. Gaps were present below some of the ridge tiles (Plate 4.16) and under a couple of the slates. These could be inspected using a ladder and torch and most of the gaps did not extend very far however a few went right into the ridge and may provide access to crevice roosting opportunities or into the loft space within. No evidence of bats was recorded within the gaps under the ridge tiles however a single bat dropping, considered to be from a pipistrelle species of bat, was recorded on the northern pitch of the roof.



Plate 4.15: B2 – Kitchen Extension



Plate 4.16: B2 – North-Western Extension With Barge Boards



Plate 4.17: B2 – Bat Dropping on Coal Store



4.18: B2 – Second Bat Dropping on Coal Store

A coal store was attached to the kitchen extension and two further pipistrelle-type droppings were recorded on top of this (Plates 4.17 and 4.18).

A number of features were recorded externally on the building which could provide access into the building and roost features. These included:

- Gaps under ridge and hip tiles.
- Lifted roof tiles.
- Missing verge mortar.
- Gaps between the boxed eaves and the walls.
- Gaps between the boards on the mock tudor roof gable feature.

In addition, three pipistrelle-type bat droppings were recorded on the roof of the rear kitchen extension and its adjacent coal store.

Aside from this, no further evidence of roosting bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded within the features that could be fully inspected during the survey however it was not possible to fully inspect all of the identified features due to the height at which they were located. As such it was not possible to establish if bats had used these features to enter a roost location at the time of surveying.

Internal Assessment

Internally, the main roof was supported on a wooden frame with rafters and purlins (Plate 4.19). The space was uncluttered but small, with a floor to apex height of 2.5 metres and an area measuring approximately 10 metres by 8 metres.



Plate 4.19: B2 – Internal Roof Space, Showing Plaster on Tiles and Insulation on Floor



Plate 4.20: B2 – Brickwork of Chimney Stack

The tiles were unlined but were backed with a type of insulating white plaster (see Plate 4.19). A small amount of light was visible at the eastern side where some of the plaster was missing behind the tiles near the eaves however not large gaps or potential entry points were recorded.

The ridge was cobwebbed, indicating it had not been recently accessed.

A brick chimney stack was present at the south-western side of the roof space (Plate 4.20) and the brickwork on this was intact, with no features suitable for roosting bats. To the north-eastern side the loft space had a small projecting section with hanging tiles which had wooden battening behind. This was well-sealed, with no entry points visible.

Thick insulation was present on the floor of the loft space (see Plate 4.19) and no droppings or any other evidence of bats was recorded on the insulation.

The loft hatch had been left open into the rooms below however no evidence of bats was recorded within the main part of the house.

Within the single-storey pitched extension on the north-west elevation of the building the ceiling was broken, giving views into the small roof space (Plate 4.21). The underside of the roof tiles was lined with felt sarking and this was intact, with no light showing from the outside. No evidence of bats was recorded within the roof space.



Plate 4.21: B2 – Internal Roof Space of Extension, Showing Felt Sarking

It was not possible to fully inspect all features within the loft space e.g. the area between the felt sarking and roof tiles within the north-western extension and as such the bat roosting potential of this area could not be determined. Whilst no evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building, not all areas could be fully assessed.

4.4 SITE AND SURROUNDING HABITATS

The habitats on site provide negligible foraging and commuting habitat for bats, being dominated by hardstanding, with only minor amounts of semi-natural habitat around the boundaries of the site and within the residential property. The site is surrounded by roads lit by street lighting at night and beyond this by mostly residential properties with only limited amounts of greenspace comprising linked residential gardens and small areas of greenspace, providing low value foraging and commuting habitat.

Of greater value, however, is the wooded River Clywedog corridor, which lies just over 150 metres to the south-west of the site at its closest point and can be accessed via the linked residential gardens. This provides a potential vegetated commuting and foraging corridor away from the site and out into the local countryside, linking the site with other potential roosting and foraging habitat in the local area.

Habitats within 1 km of the site suitable for roosting, commuting and foraging include:

- Residential houses and associated gardens;
- The River Clywedog in its wooded corridor;
- Parks and recreation grounds;
- Farm houses and associated agricultural buildings;
- Pockets of woodland;
- Agricultural fields with tree and hedge lined boundaries; and
- Churches, schools and associated grounds.

5. DISCUSSION AND CONCLUSIONS

5.1 SUMMARY OF PROPOSALS

The proposed works involve the demolition of the buildings currently present on site and the construction of a new supermarket building in the north of the site, with the petrol forecourt located in the east of the site and car parking to the south-west and north-west of the forecourt. A small amount of landscaping will also take place to the rear of the new foodstore and along the boundary where the current scattered trees are present. The proposed works will lead to the loss of all of the buildings and most of the habitats currently present on site.

5.2 ASSESSMENT OF BUILDINGS

5.2.1 Building B1: Co-op Foodstore

A small number of low value features were recorded externally around the building which could be utilised by bats to gain entry into the building and potential roost locations. These comprised gaps between the walls and the barge boards and frontages, as well as gaps under the metal roof corrugations. These features were all fully inspected and were found to be cobwebbed or unsuitable for bats. Internally, a gap was present between a section of asbestos roof overlain by a metal corrugated roof. Again this was fully inspected and no evidence of bats was recorded.

No evidence of roosting bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the assessment of the building, a full inspection was possible and the building was concluded to hold negligible bat roost potential.

5.2.2 Building B2: Afallon

A number of features were recorded externally on the building which could provide access into the building and roost features. These included:

- Gaps under ridge and hip tiles.
- Lifted roof tiles.
- Missing verge mortar.
- Gaps between the boxed eaves and the walls.
- Gaps between the boards on the roof gable feature.

In addition, three pipistrelle-type bat droppings were recorded on the roof of the rear kitchen extension and its adjacent coal store.

No further evidence of roosting bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded within the features that could be fully inspected during the survey however it was not possible to fully inspect all of the identified features due to the height at which they were located. As such it was not possible to establish if bats had used these features to enter a roost location at the time of surveying.

Due to the presence of a small number of bat droppings and the number of features which were too high to fully inspect, the building was concluded to hold high bat roost potential.

5.3 POTENTIAL IMPACTS ON BATS

Building B1 was concluded to hold negligible bat roost potential and it is therefore considered highly unlikely that the demolition of the building would disturb or destroy any roosts, or directly harm individual bats.

However, as three bat droppings were recorded on the tiles of the rear extension and external coal store of Building B2 and a number of potential roost features were identified on the building, B2 was concluded to hold high bat roost potential. The proposed demolition of this building, therefore, has the potential to disturb or destroy any roosts present within the features identified and potentially injure or kill any bats present at the time, in contravention of the legislation relating to bats, as detailed in Appendix 1. Recommendations for further surveys to assess whether bats are indeed present and inform any mitigation required to avoid adverse impacts on bats are therefore made in Chapter 6.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd.'s current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

R1 Building B2: Afallon

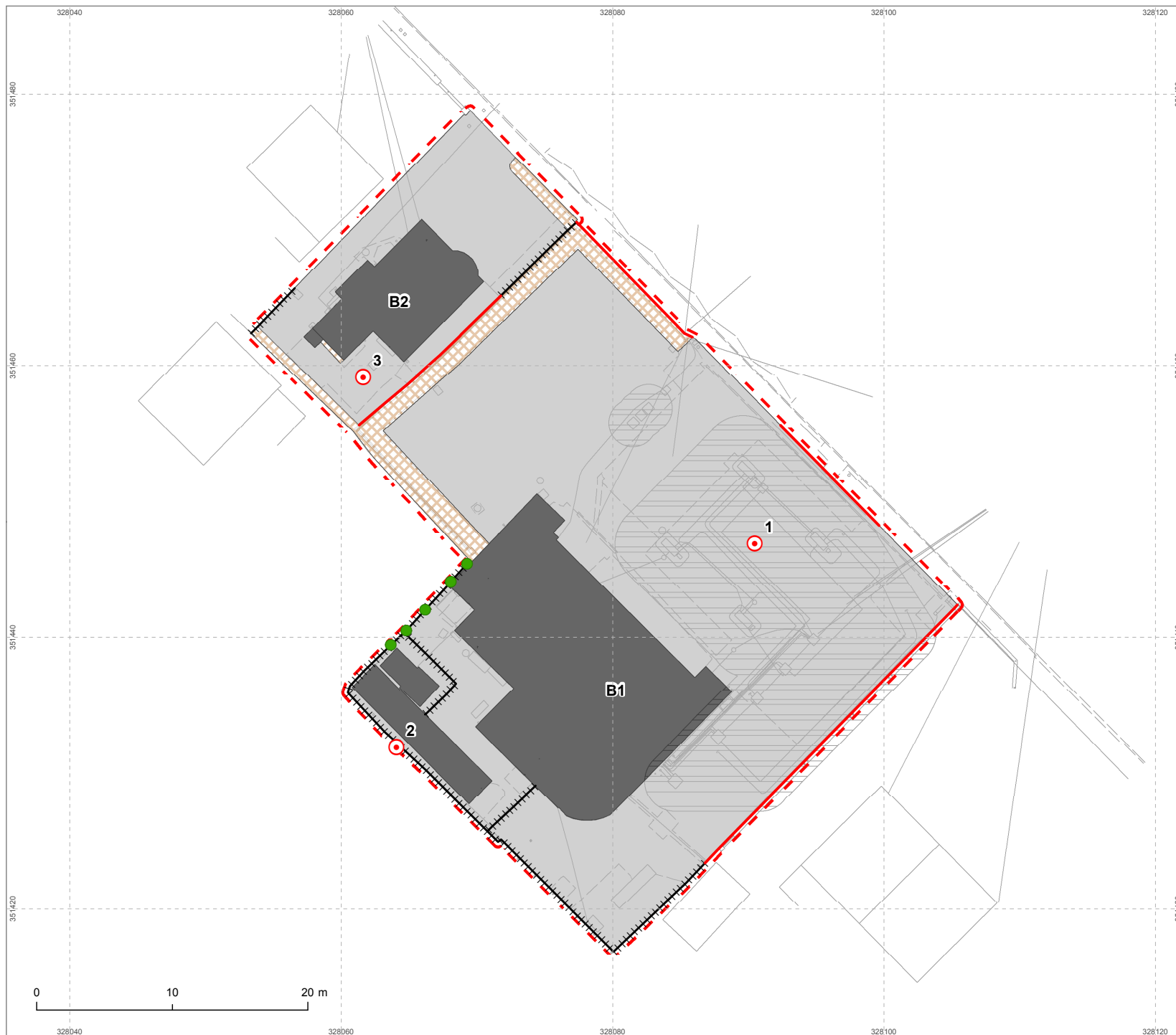
This building has been identified as having high potential to support roosting bats. Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016) recommends that for structures with high bat roosting potential at least three dusk emergence and/or dawn re-entry surveys be undertaken during the bat emergence/re-entry survey season to determine the presence/absence of roosting bats within the structure. The bat emergence/re-entry survey season extends from May to September. At least two of the surveys should be undertaken during the peak season for emergence/re-entry surveys between May and August and one of the three surveys should be a dawn re-entry survey. If a roost is discovered during these surveys, a Natural England licence application may be required.

R2 Building B1: Co-op Foodstore

This building was fully inspected and no bat roosts were identified. This building had negligible potential for roosting bats. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed structure have not commenced within this timeframe it will be essential to update the survey effort to establish if suitable features have developed and if bats have colonised the structure in the interim. In the unlikely event that a bat is found during demolition works all works must immediately cease and a suitably qualified ecologist should be contacted.

7. DRAWINGS

Drawing C127752-02-01 – Habitat Plan showing Building Locations



C127752-02-01

Legend

- Site boundary
- Scattered tree
- Fence
- Wall
- Building
- Hardstanding
- Introduced shrub
- Target note:
 - Covered petrol station forecourt
 - Steel containers
 - Garden area - Patio and Pendulous sedge

Project		High Street, Coedpoeth	
Drawing		Phase 1 Habitat Map	
Client		Williams Southern Limited	
Drawing Number	C127752-02-01	Revision	00
Scale @ A4	1:400	Date	April 2018
Approved By	ER	Drawn By	GP
 MIDDLEMARCH ENVIRONMENTAL Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ T:01676 525880 F:01676 521400 E:admin@middlemarch-environmental.com			
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The Conservation of Habitats and Species Regulations 2017.

APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or *obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are listed Species of Principal Importance for Nature Conservation in Wales: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*.

The reader should refer to the original legislation for the definitive interpretation.

ECOLOGY

At present, 18 species of bats are known to live within the United Kingdom, of which 17 species are confirmed as breeding. All UK bat species are classed as insectivorous, feeding on a variety of invertebrates including midges, mosquitoes, lacewings, moths, beetles and small spiders.

Bats will roost within a variety of different roosting locations, included houses, farm buildings, churches, bridges, walls, trees, culverts, caves and tunnels. At different times of the year the bats roosting requirements alter and they can have different roosting locations for maternity roosts, mating roosts and hibernation roosts. Certain bat species will also change roosts throughout the bat activity season with the bat colony using the site to roost for a few days, abandoning the roost and then returning a few days or weeks later. This change can be for a variety of reasons including climatic conditions and prey availability. Bats are known live for several years and if the climatic conditions are unfavourable at a particular roost, they may abandon it for a number of years, before returning when conditions change. Due to the matriarchal nature of bat colonies, the locations of these roosts can be passed down through the generations.

Bats usually start to come out of hibernation in March and early April (weather dependent), when they start to forage and replenish the body weight lost during the hibernation period. The female bats then start to congregate together in maternity roosts prior to giving birth and a single baby is born in June or July. The female then works hard to feed her young so that they can become independent and of a sufficient weight to survive the winter before the weather gets too cold and invertebrate activity reduces. Males generally live solitary lives, or in small groups with other males, although in some species the males can be found living with the females all year. The mating season begins in the autumn. During the winter bats hibernate in safe locations which provide relatively constant conditions, although they may venture outside to forage on warmer winter nights.