Preliminary Daytime Roost Inspection and Emergence/Re-entry Surveys for Bats at Arlecdon Farm, Arlecdon, Cumbria

Survey to determine use of the buildings on site by bats

Report for: Mr W Bell

October 2015

OPENSPACE

To complete the objectives stated in this report, it was necessary for OpenSpace to base our conclusions on the best information available during the period of the project and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. We therefore cannot guarantee that the investigations fully identified the degree or extent of e.g. species presence or habitat management efficacy described in this report.

Document Information

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Project: Arlecdon Farm Survey

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Report Revisions

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EXECUTIVE SUMMARY

This report relates to a bat survey carried out on the buildings proposed for works at Arlecdon Farm, Arlecdon, Cumbria. Two common pipistrelle transient roosts were found present in crevices within the barns' external stonework.

The proposed design should allow the works to proceed without destruction / damage / obstruction of the roosts. The methodology provided must be strictly adhered to ensure no risk of significant disturbance and no harm to individual bats.

The proposed design allows the roosts to be retained and so a Natural England EPSM licence is not required.

There are potential bat roosts in crevices in stone throughout the buildings. External crevices will be retained where possible and bat roost provision should be reinstated / enhanced throughout works.

The adjacent farmhouse (not part of the current application) may be used by roosting bats and any future works to this building should consider that bats may be present.

All contractors must be aware of this report and if bats are seen or suspected works should pause and further advice sought.

There is historic evidence of barn owl presence on site and proposed works should ensure there is no risk of disturbing nesting barn owl. A pre-works site check should be conducted by a qualified ecologist. The proposed design should secure long term roosting provision for barn owl within the site.

There is evidence of breeding birds on site and any works taking place during the bird breeding season (March – September) must consider that all British birds are protected by law when nesting.

The site is a breeding site for the local swallow population. Recommendations to retain bird nesting provision within the site have been provided.

1 INTRODUCTION

This report relates to a planning application for the conversion of two barns, at Arlecdon Farm, Arlecdon, Cumbria.

The works proposed under this scheme may impact on resident bat populations and therefore bat survey work has been commissioned. This will aim to determine if bats are using the buildings for roosting / nesting or the surrounding habitat for commuting and foraging.

1.1 Bats and the law

In the UK there are seventeen species of bat. Each species utilises a variety of roost types and has certain ecological requirements.

A bat roost is defined as “any place that a wild bat uses for shelter or protection”. Bat populations have declined steeply across the UK and Europe and all European bats and their roosts are protected under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010 (as amended).

It is illegal to:

- deliberately capture (or take), injure or kill a bat;
- intentionally or recklessly disturb a group of bats; where the disturbance is likely to significantly affect the ability of any significant group of animals of that species to survive, breed or rear or nurture their young or likely to significantly affect the local distribution or abundance of the species, whether in a roost or not;
- damage or destroy the breeding or resting place (roost) of a bat;
- possess a bat (alive or dead), or any part of a bat;
- intentionally or recklessly obstruct access to a bat roost;
- sell (or offer for sale) or exchange bats (alive or dead), or parts of bats.

If any intended works should result in the damage to or destruction of a roost or the disturbance of bats, then a licence must be acquired from Natural England (NE), to derogate from the Regulations. The licence must be applied for by a qualified ecological consultant. The licence is processed by NE and places conditions on the proposed development.

1.2 Barn owl (Tyto alba) and the law

Barn owl is an Annex I species, listed on Schedule 1 of the Wildlife and Countryside Act and it is an offence to disturb them when at or even near an active nest site even before eggs are laid.

They are an amber list species; high priority species of conservation concern. The UK barn owl population has fallen by 70% in the last 50 years to around 2,000 breeding pairs.

1.3 Full details of proposed works on site

The proposal is to convert two traditional barns (Barn A & Barn B) into residential dwellings. The existing structure of the barns will be retained. The lean-to at the west of Barn B will be retained.

Existing openings will be used to fit new doors. A number of new doors and window openings will be created along barn elevations.

The existing profiled steel and slate roofs will be removed. The existing slates to Barn B and the lean-to will be re-used within the new roofs. Roof timbers will be replaced as required. Pointing, stabilisation and rebuilding will be required within certain wall sections.

The small brick and concrete sheds at the north of the site will be demolished to create an access / driveway to the site. The small stone byres northwest of the site are shown on the plans to be retained as an open car port.

See Figure 1.1 showing existing buildings and proposed plans.

Figure 1.1. Existing site layout and surroundings

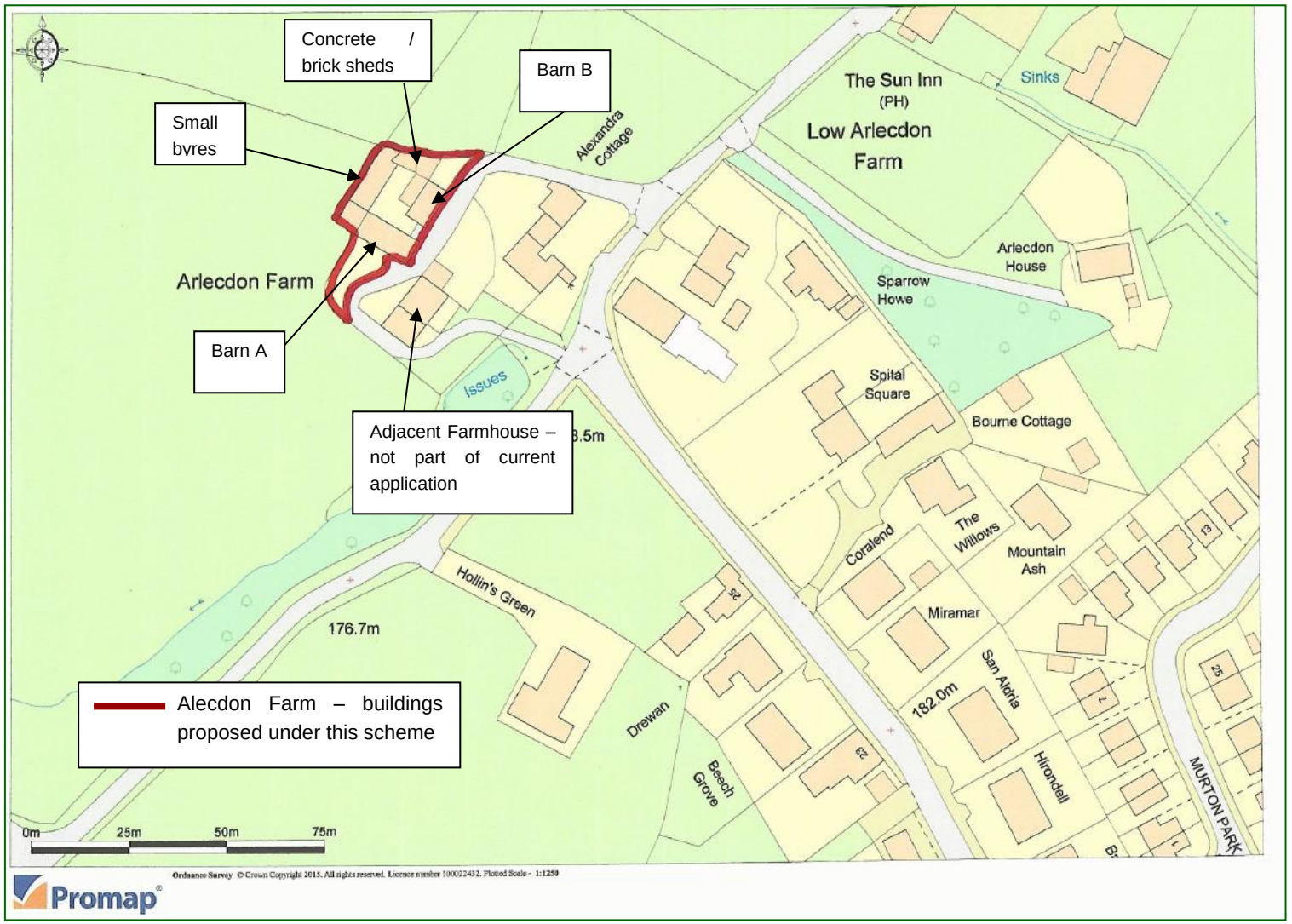


Figure 1.2. Existing elevations – Barn A and byres

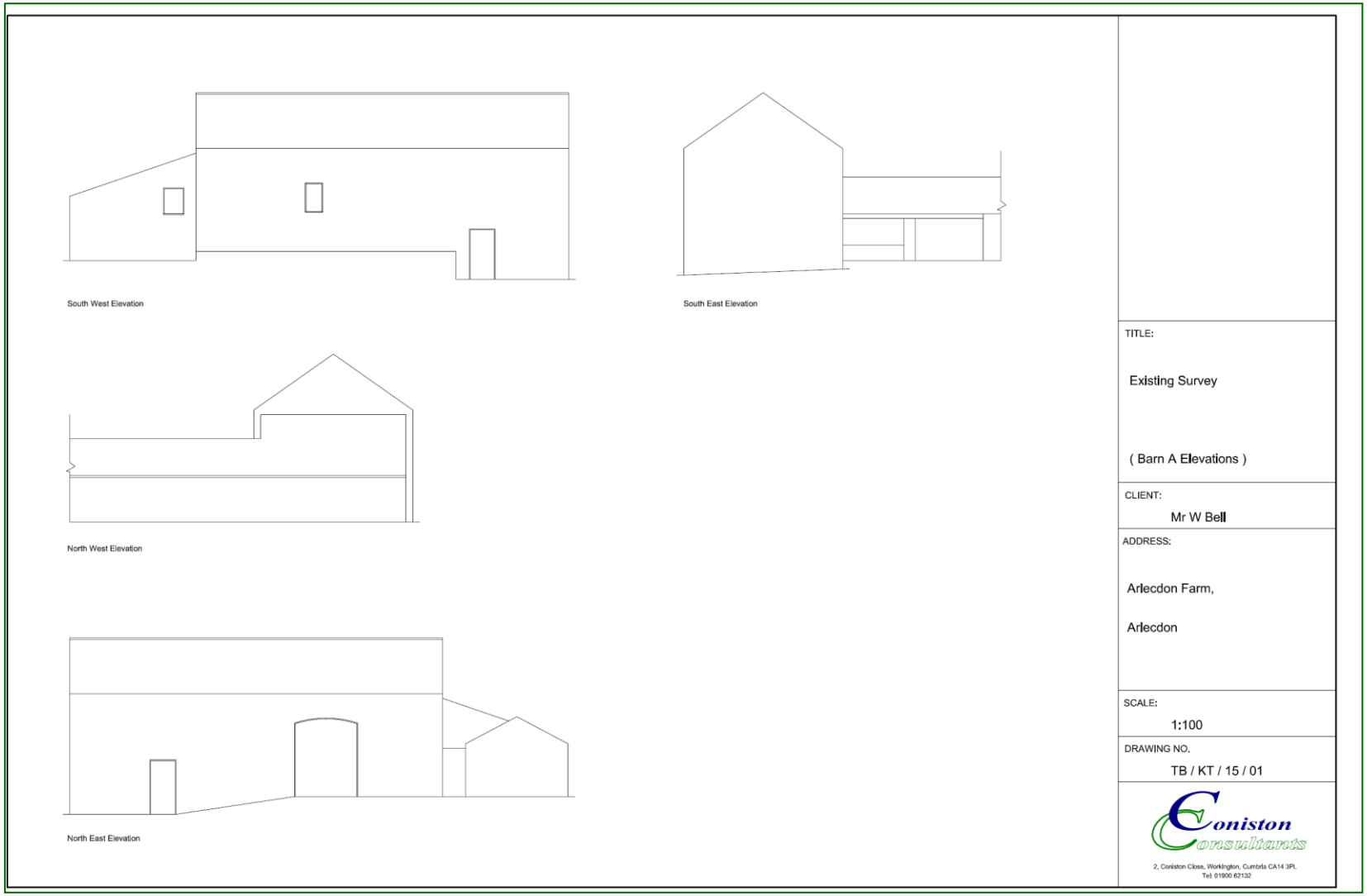


Figure 1.3. Existing elevations – Barn B, lean-to and adjacent sheds

Figure 1.4. Proposed site layout

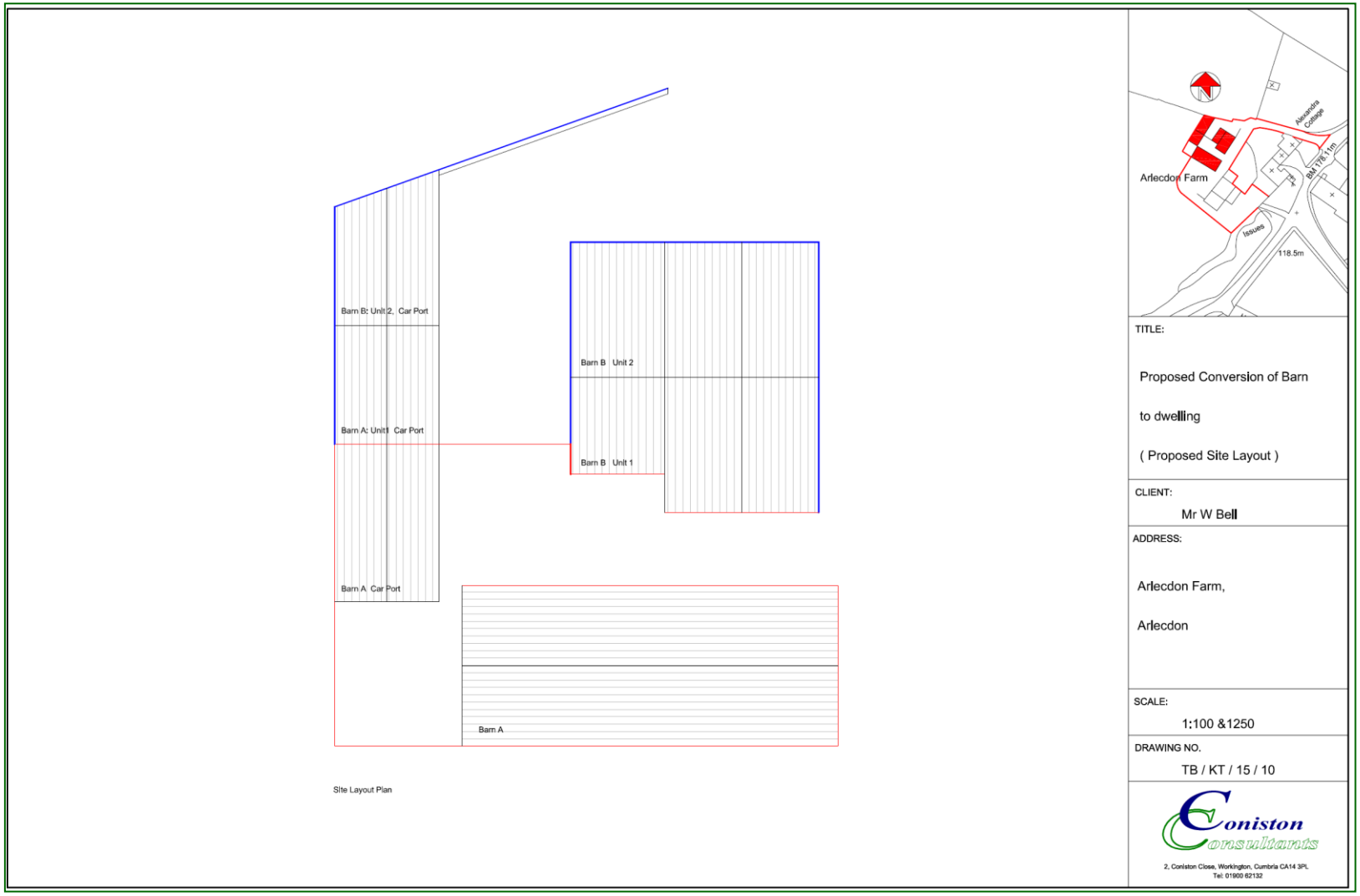


Figure 1.5. Proposed elevations – Barn A and the car port

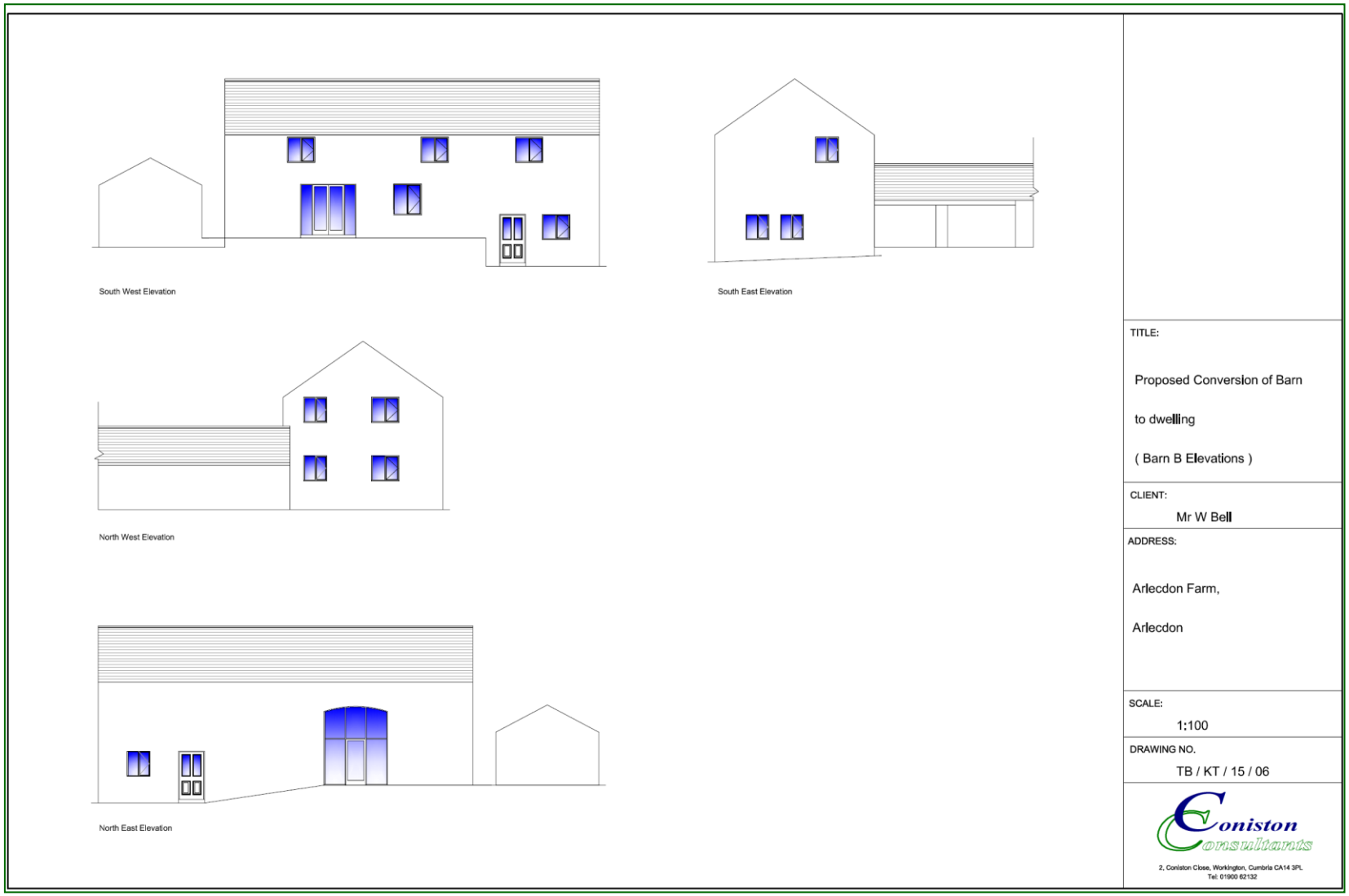
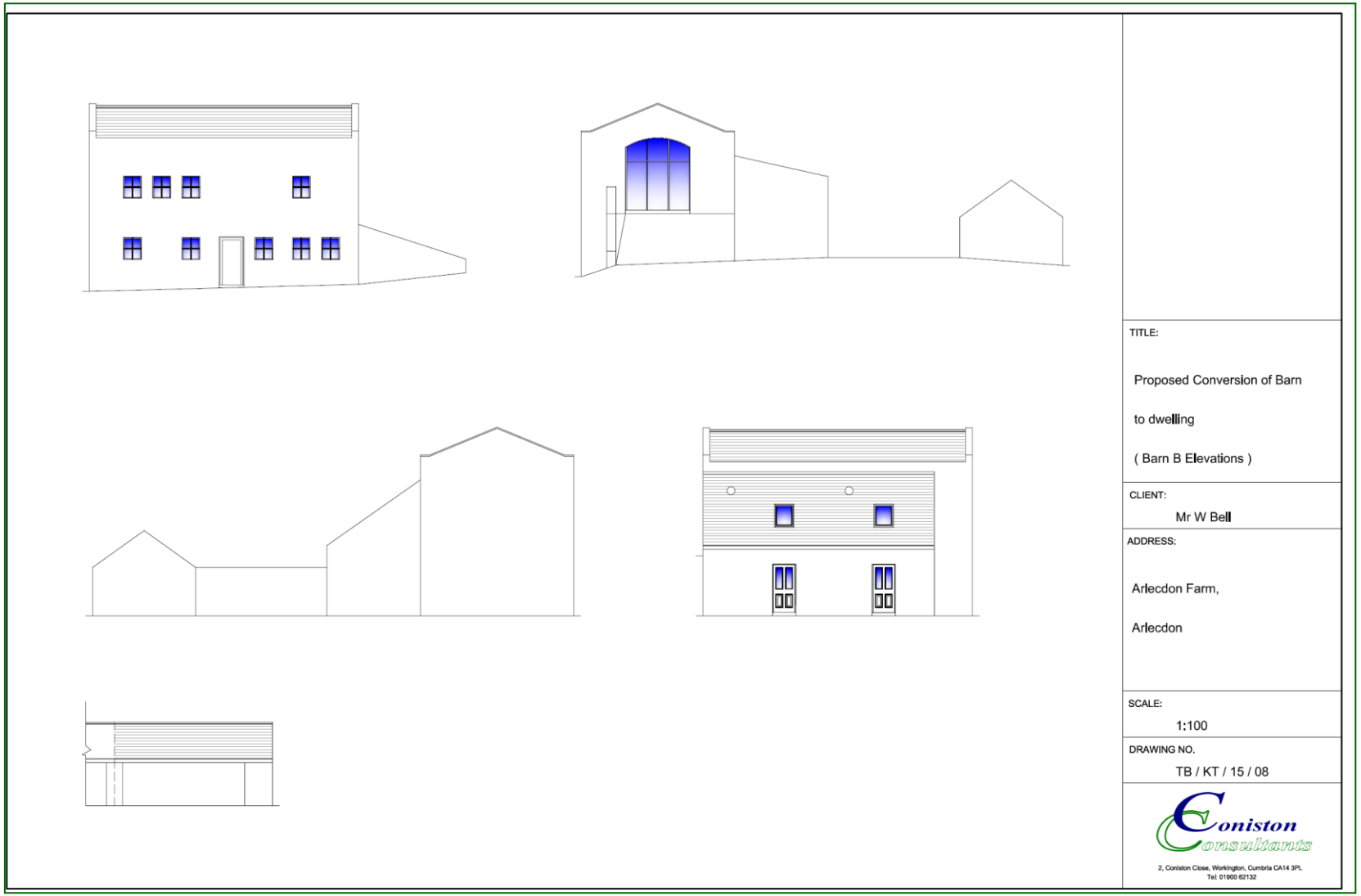


Figure 1.6. Proposed elevations – Barn B, lean-to and the car port



2 METHODOLOGY

2.1 Bats

During the daytime, the barns and byres on site and the surrounding grounds were surveyed externally and internally for signs of bats, using high-powered torches (Clulite CB2, 1M candle power, Clulite HL13), endoscope (Snakevision, 10mm) and ladders. Signs of bats include: droppings, feeding remains (in association with droppings), wear marks on potential egress points, staining on stone / timber, clear areas in cobwebs, the smell of bats, audible signs of bats or the presence of bats.

The interior to the buildings on site was accessed and the internal spaces, where safely accessible, were accessed and inspected. Rafters, beams and joists were inspected where possible.

The exterior / interior walls, windows, doors, lintels and wall tops were examined for droppings that may have adhered to them.

The grounds surrounding the buildings were examined for droppings that may have collected beneath roost sites. Areas that were inaccessible but which had potential for bats were noted.

A dusk (emergence) survey and a dawn (re-entry) surveys were conducted during the bats active season using six / four surveyors equipped with Batbox Duet and Magenta 5 heterodyne / frequency division bat detectors.

An Anabat Express static bat detector was placed within Barn A for duration of the dusk survey and within Barn B for duration of the dawn survey.

AnalookW 4.1t sound analysis software was used to analyse the bat calls recorded by Anabat Express during the surveys.

2.2 Barn owl and breeding birds

During the visual inspection (wherever accessible) signs of use by barn owl and other breeding birds are noted. Confirmation of use would be determined through either the presence of nest building, juveniles and active nests or the presence of barn owl pellets, barn owl droppings / whitewash, evidence of nesting, feathers or sighting of individual birds.

2.3 Survey area

The survey area incorporated the interior and exterior of two barns with associated buildings at Arlecdon Farm, and the surrounding grounds. The stone byres were briefly checked during the day survey and the front to the byres could be seen during the activity surveys but they were not included in the full survey effort.

2.4 Weather conditions

Day survey: Temperature 12-13°C; Wind 2; 100% cloud; No precipitation.

Dusk survey: Temperature 12-14°C; Wind 0; 10% cloud, No precipitation.

Dawn survey: Temperature 10-7°C; Wind 0; 0-10% cloud, No precipitation.

2.5 Timing

The day survey was conducted on the 14th September 2015 between the hours of 11.00 and 12.15.

The dusk survey was conducted on the 28th September 2015 between the hours of 18.40 and 20.00 (Sunset =18.57).

The dawn survey was conducted on the 2nd October 2015 between the hours of 5.45 and 7.20 (Sunrise =7.17).

2.6 Personnel

The survey work was conducted by Victoria Griffin Victoria Griffin (NE Bat Licence CLS 2622), Patryk Gruba (Natural England Bat Licence WML-CL18 No. 2015-11080-CLS), Manon Keir, Diane Dobson, Alec Pue, Louise Harrison, and Andy Mills.

2.7 Survey area pre-existing information on species at site

A data search was not commissioned but was considered not required for evaluation as the current survey should be adequate to make an appropriate assessment.

3 RESULTS

3.1 Site assessment

Buildings

The two barns proposed for conversion are part of the Arlecdon Farm complex. The associated buildings that are proposed for inclusion to this scheme include the single storey byres, a brick and a concreted shed. The buildings are mainly used for storage with some low level agricultural use.

Barn A is at the south of the site. This is a full height, stone build traditional barn with profiled steel roof. The interior indicates that the original traditional roof has been destroyed by fire and replaced with new roof timbers (steel frame rafters and wooden purlins) and profiled steel roof; very few original roof timbers have been retained and some are fire damaged. The interior to the barn is open with no upper floors or haylofts present. There are numerous crevices present within the external stonework; the interior walls are well pointed with very few gaps present.

Barn B is a full height traditional stone structure at the northeast of the site. It has two floors; the upper floor is a large open area with a cart entrance at the sloped access to the northeast gable. The traditional timber roof is finished with slate and with lime mortar to the underside of the roof. The external stonework has numerous crevices present; the southern gable wall is rendered with few visible gaps. There are a few gaps present to the internal walls.

The stone lean-to at the west has numerous gaps to both the interior and exterior walls. The upper loft to the lean-to could not be inspected due to dangerous floors.

There is a single storey stone byre at the west of the site. This building has a traditional timber roof finished with slate and there are some gaps in the stone at the interior and exterior walls in places.

There are two stone / brick sheds adjacent the northwest of Barn B with profile sheet roofing.

See Photos – Appendix One.

Habitat

The site is located at the northwest edge of the village of Arlecdon in West Cumbria, 4km northwest from the western boundary of the Lake District National Park.

The immediate surroundings primarily consist of agricultural land, marshland, open fields and small stands of woodland. There are numerous small watercourses, springs and drains in the surrounding area such as Dub Beck, a tributary of which rises at the south of the farmstead, Kingle Gill and Brownrigg Gill are 6-700m north and they are all

surrounded by trees and scrub. There are pools and standing water within 500m to the north and there are larger quarry pools around 1.5km southeast.

Significant woodland areas in the surroundings include Asby Banks and Hole Gill broadleaved woodlands (1.2km east) and Tutehill Wood coniferous plantation (1.8km northwest).

The site is relatively exposed however the surrounding habitats offer good conditions for bats to forage and commute. The wider habitat offers excellent hunting conditions for barn owl.

See Figures 3.1 and 3.2 for aerial photographs of the site and surrounds.

Figure 3.1. Aerial photograph of the site, showing the surveyed buildings

Figure 3.2. Aerial photograph of site & surrounding habitat

3.2 Field survey - Bats

Day survey

No bats were observed present within the buildings during the day inspection. Despite a thorough search no evidence of current or past bat occupation was discovered.

There was potential for bats to roost:

Barn A

- Within crevices in the walls – mainly external
- Gaps along the wall tops
- Under lead flashing overlap – west gable and south elevation
- Within timber door lintels

Barn B & lean-to

- Within stonework crevices throughout – internal / external
- Gaps along the wall tops
- In crevices between / around internal roof timbers
- Under ridge tiles
- Within timber door lintels

Other proposed outbuildings

The byres have some potential for individual roosting bats - mainly within gaps in the stonework and around doorways / lintels.

The two brick and concrete built sheds along the north elevation had nil / negligible potential for roosting bats.

Dusk Survey

During the dusk (emergence) survey common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* observed active within the site grounds. A myotis species of bat *Myotis sp.* and brown long-eared bats *Plecotus auritus* were also observed active on site.

Between 19.09 and 19.44, five common pipistrelle bats **emerged** from the gap in the stonework south elevation Barn A. After a short period of activity on site, bats dispersed south / southwest.

At 19.39, a common pipistrelle bat **emerged** from a gap in the stonework east elevation of Barn B.

Individual soprano pipistrelle bats were recorded commuting / foraging on site at 19.35, 19.37 and 19.59.

At 19.31, a myotis species of bat was observed flying out of the lean-to adjacent Barn B and then flying inside the courtyard for 30 seconds. At 19.48 a myotis bat call was observed at the north of Barn B. Between 19.40 and 19.50, 1-3 brown long-eared bats were observed foraging along the eastern elevation of Barn B (along the hedge / trees in the garden / orchard at the southeast).

Dawn Survey

There was very low bat activity recorded on site during the dawn survey. This included a brown long-eared bat foraging briefly along the eastern elevation of Barn B at 6.15 and pipistrelle bat species heard calling and commuting through the site at 6.33 and 6.46.

Static Detector Recording and Data Analysis

The Anabat was deployed within Barn A during the dusk survey and Barn B during the dawn survey. No bat calls were recorded by the static detector during these survey periods.

3.3 Field survey – Barn Owl and Breeding Birds

A single and very old, desiccated barn owl pellet and small amount of whitewash (droppings) were discovered within Barn B. No other field signs to indicate use of the buildings by barn owl were found.

Both barns had some suitability for roosting / nesting barn owl however all owl holes appear to be blocked and doors are present to all entrances so access for this species may be restricted.

Numerous old bird nests were observed within both main barns on site. An active swallow's nest *Hirundo rustica* was observed within the lower section of Barn B during the day survey. Starlings *Sturnus vulgaris* were observed entering gaps at the wall top to the Barn A and old jackdaws *Corvus monedula* nests were present throughout.

See Figure 3.3 and Photos below for all field evidence and roost locations.

Figure 3.3. Showing field evidence

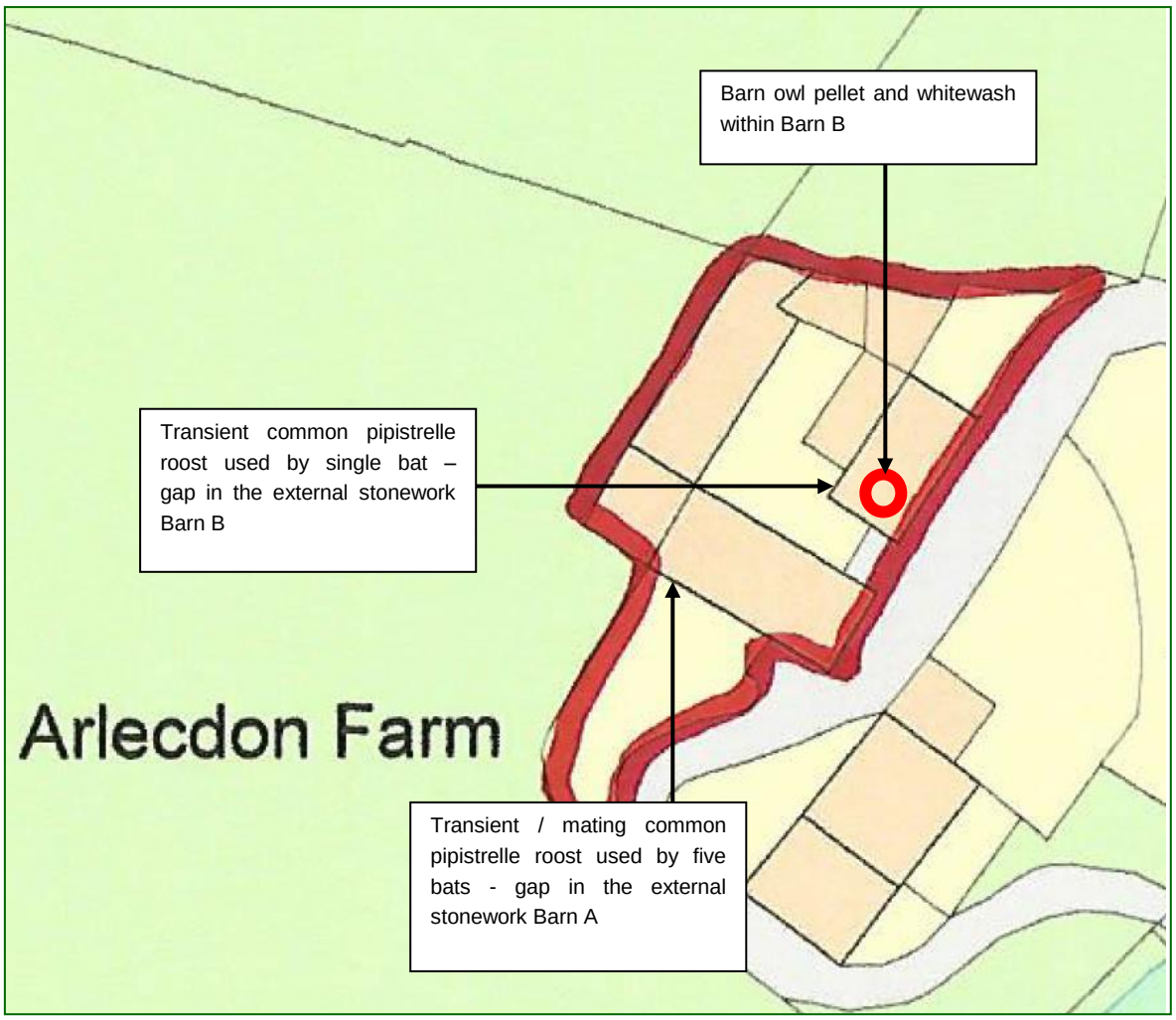


Photo 1. Common pipistrelle bat roost – Barn A south elevation

Photo 2. Common pipistrelle bat roost – Barn B east elevation

4 INTERPRETATION AND ASSESSMENT

4.1 Bats

Two transient common pipistrelle roosts are present within the external crevices to the barns.

The roost at Barn A (south elevation) was used by five common pipistrelle bats and the behaviour of the bats at this time of year indicates this may have been used as a mating roost. The roost was only used on one occasion (during the dusk survey) and so is considered to be a transitional roost.

The roost in Barn B was used by a single common pipistrelle during the dusk emergence survey (no entering bats were observed during the dawn survey) and it is considered to be an autumn transient roost.

The myotis bat observed on site during the dusk survey could have roosting within the barn / lean-to or within a building adjacent the site. Both barns and the stone lean-to have high potential for bats to roost in stone crevices.

Brown long eared bats were observed commuting along the track at the east of the proposed buildings. It is considered likely that these bats may have been roosting in the farmhouse roof. The farmhouse is part of the Arlecdon Farmstead but is not proposed under this scheme and so has not been assessed for the purpose of this survey.

Site and buildings

The surveyed buildings offer low potential for breeding bats and there were no signs of use by larger numbers. There is high potential for crevices to be used by small numbers of bats, as transient roosts, throughout the year.

Transitional and day roosts can be used for either a few days or a few weeks. Roosts in stone crevices are typically used more often during the cooler spring and autumn months and there is potential for use of some deeper wall crevices as hibernacula.

Roosts used by individual bats / small numbers of common and rarer species (not maternity sites) are relatively low in significance to local populations and their status is identified to be 'low'. (Bat Mitigation Guidelines, Chapter 7.2, Figure 4).

The surrounding habitat offers good - moderate foraging conditions and connectivity for bats. One species of bat was discovered roosting on site and at least four species were recorded active within the surveyed buildings. The buildings complex provides known and potential bat roosts and unlit, sheltered and covered flying and feeding areas. Roost provision in the surrounding habitat is relatively low and this makes the site more likely to be used by local populations.

It is considered that the site has moderate-high value to the local bat populations.

4.2 Constraints

The surveys were conducted during September / early October in optimal times for preliminary day inspection and mating / autumn / transient roost surveys, the timing was not optimal time for dusk / dawn bat detector surveys for emergence / re-entry for maternity roosts (BCT Bat Surveys Good Practice Guidelines 2nd Edition. Chapter 4, 4.6.3). Survey effort should consider all types of bat roost and the potential offered by the buildings.

As the site offers limited potential for breeding bats and the site was surveyed in September when evidence of use by breeding bats / larger numbers is likely to have been present, this report concludes that the buildings and site status have been accurately assessed without constraint. The survey effort was sufficient to assess use of the site by bats at other times of year and the impact on roosting bats from the proposed works. There were no constraints to the survey.

4.3 Barn Owl & Breeding Birds

A single barn owl pellet found in Barn B confirms this building has been used for roosting by barn owl in the past. There was no recent evidence of roosting. There is no evidence of past use by breeding by breeding barn owl. At present access to the barns for this species appears restricted.

The roost is considered an 'old occasional roost site' (NE/BOT, 2009, Barn Owls and Rural Planning Applications Guidelines).

OpenSpace have records of breeding barn owl within 2km of the site. There are clear flight lines from the barns to the surrounding habitat. The surrounding fields provide excellent habitat for barn owl and OpenSpace have records for barn owls hunting frequently within the wider area.

The survey work identified past and present use of the site by swallows, starlings and jackdaws.

5 IMPACT ASSESSMENT

5.1 Bats

Direct impacts – during works

Works to stabilise / point up crevices in the external walls may destroy, damage or obstruct the identified roosts. *It is considered that these roosts could be retained during works – minimising impacts.*

If bats are present at the time of works there is risk of harm to individual bats. There is some risk bats may opportunistically roost in suitable gaps within stone / wall tops / roof timbers at any time of year. If present at the time of works, bats could be harmed. Hibernating bats are particularly vulnerable to harm, for works at other times of year bats can anticipate the threat of disturbance and roost elsewhere.

Adherence to a mitigation strategy including timing constraints and a working methodology will reduce the risk of harm to bats.

Direct impacts – post works

Retention of the identified roosts should be achievable given the proposed design. The works should not result in the loss of the common pipistrelle bat roosts in the external crevices.

The bat roosts can be retained and roost provision enhanced during works - this will ensure no long term significant impact on local bat populations.

Indirect impacts

There may be some impact from the works removing roost potential across the site. The proposed changes within the site will result in a loss of sheltered flying space / light sampling on site. The site currently provides an unlit area. Any increased lighting on site may have some impact on local bat populations using the site for roosting and foraging.

Adherence to a recommended lighting scheme, the maintenance of dark areas and the retention and enhancement of roost provision will minimise negative impact on local populations.

5.2 Barn Owl and Breeding Birds

From the 2015 survey there are no anticipated impacts to barn owl. Barn owl is an Annex I species and it is an offence to disturb them *when at or even near an active nest site even before eggs are laid*. As nesting adults and dependent young are protected against disturbance then any building they occupy are protected during these periods.

There is some low risk that proposed works may disturb barn owl if birds were to have taken up roosting / nesting between the current survey and the time of works. To reduce any risk of disturbing breeding barn owl it would be best practice to conduct a pre-works check for any signs of current use.

There is historic evidence of barn owl being present on site and roosting / nesting provisions should be maintained within the converted barns.

Works taking place to any building in the breeding bird season (March – September) may disturb nesting birds, if present. There will be some loss of nesting provision to local populations of swallow.

6 RECOMMENDATIONS

6.1 Bats

The following methodology and timing for works must be followed to ensure that no bats are harmed and that the identified roosts are not damaged, destroyed or obstructed. As the proposed plans allow the identified roosts to be retained it is therefore considered that a European Protected Species Licence (EPSM) from Natural England will not be required.

The methodology and timing measures below MUST be adhered to avoid risk of significant disturbance and committing an offence:

- The identified roosts (crevices) must be retained. If pointing around these gaps is required this must be done under the guidance of a licenced ecologist.

- Any pointing works must commence during the bats' active season (1st April – 1st October) to avoid harming hibernating bats.

- Wall tops, crevices and wall cavities should be exposed with care.

- During any works to the buildings – along wall tops and during any stabilising / crack stitching etc any holes, crevices or cracks MUST be checked with a torch for any signs of bats.

- If the back of any cavity / crevice cannot be seen then the area should be left for 3 days in good weather (dry, calm, 10+°C) before the cavity is covered / filled.

- If bats are seen or suspected all work must pause and the acting ecologist be contacted immediately.

Existing roost provision in the form of suitable crevices within external stonework should be retained where possible. Large gaps can be mortared whilst still providing a small (20mm) access gap for bats – ecologist can provide methods. See also Appendix Three for retaining / reinstating roost provision.

Indirect impacts in the form of increased lighting around the site may cause some disturbance to local bat populations using adjacent habitat to forage / commute.

External lighting to the exterior of the buildings should be minimal and appropriate (as below):

- Use of energy efficient and modern security lighting - narrow spectrum lights, low pressure sodium or warm white LEDs.

- The design of the luminaire to incorporate the use of hoods, cowls, louvers and shields to direct the light to the intended area only.

- Reducing the ecological impact of the light by directing the light at a low level, preferably an angle less than 70 degrees.

- No lighting must be directed at the trees, hedges and scrub along any of the site boundaries.

6.2 Barn Owl & Breeding Birds

In accordance with 'Barn Owls and Rural Planning Applications' (Natural England / Barn Owl Trust, 2009, Page 5) two necessary measures are required to offer satisfactory mitigation for this roost type.

- A pre-construction check (brief site inspection) must take place to ensure there are no changes to the site status and that no offence is incidentally committed by the disturbance of a nesting barn owl. The buildings do provide some breeding potential and a pair may take up nesting on site.

- In order to secure long term protection of local population of barn owl, the existing roosting / nesting opportunities on site should be maintained / improved. A permanent accessible nesting area should be provided in at least one of the developed barns on site. This could take the form of a bespoke barn owl roost box within one of the buildings (example design shown in Figure 10.5). See 'Making Provision for Barn Owls' (Natural England / Barn Owl Trust, 2009).

Works commencing during the breeding bird season (March to September) should be aware of the potential for breeding birds and should be undertaken with care not to disturb breeding birds - chicks must have fledged from the nest before works affecting the nest area progress.

The byres will be retained as car ports along the west of the site. These buildings should be used to offer alternative nesting provision for the local swallow population. This may be encouraged by:

- Fixing nest platforms / timber boards within, at least 300m wide, along the wall tops or to the underside of the roof supports (sheeting or boards can be placed underneath to catch droppings and be cleared away post-nesting).
- Timber boards can also be placed beneath the eaves if required, away from windows.
- Swallow porches and swallow cups may also be provided in suitable locations to the interior / exterior of the byres.
- Sparrow terraces could be provided and traditional nest boxes to benefit species such as swift can be placed beneath the eaves.

Since nesting conditions on site for breeding birds will be reduced, the building design could consider breeding birds and offer replacement nest sites in the form of sparrow terraces and swift boxes. See Appendix Two.

7 SUMMARY

This report relates to a bat survey carried out on the buildings proposed for works at Arlecdon Farm, Arlecdon, Cumbria. Two common pipistrelle bat transient roosts were found present in crevices within the external stonework.

Should the identified bat roosts be retained through conversion of the barns then an EPSM is not required.

The methodology provided must be adhered during all works to ensure no significant disturbance and no harm to individual bats.

Crevices in stone offer potential bat roosts and should be retained where possible. The buildings complex, including the adjacent farmhouse (not part of the current application) is considered of value to the local bat population and all future works to any building should consider that bats may be present. Suggestions on retaining / reinstating roost provision are provided.

All contractors must be aware of this report and if bats are seen or suspected works should pause and further advice be sought.

There is some evidence of the presence of barn owl on site. There are no recent signs of use however; a pre-works check would be required to ensure there is no risk of the works disturbing nesting barn owl.

The proposed site design should secure long term roosting provision for barn owl within the barns on site, this could be in the form of a box erected on a building or a pole or a nest box could be incorporated to the building's design.

There is evidence of breeding birds on site and any works taking place during the bird breeding season (March – September) must consider that all British birds are protected by law when nesting.

Suggestions on breeding bird and barn owl nesting opportunity are provided.

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9 APPENDIX ONE: PHOTOS

Photo 1. Buildings complex from north

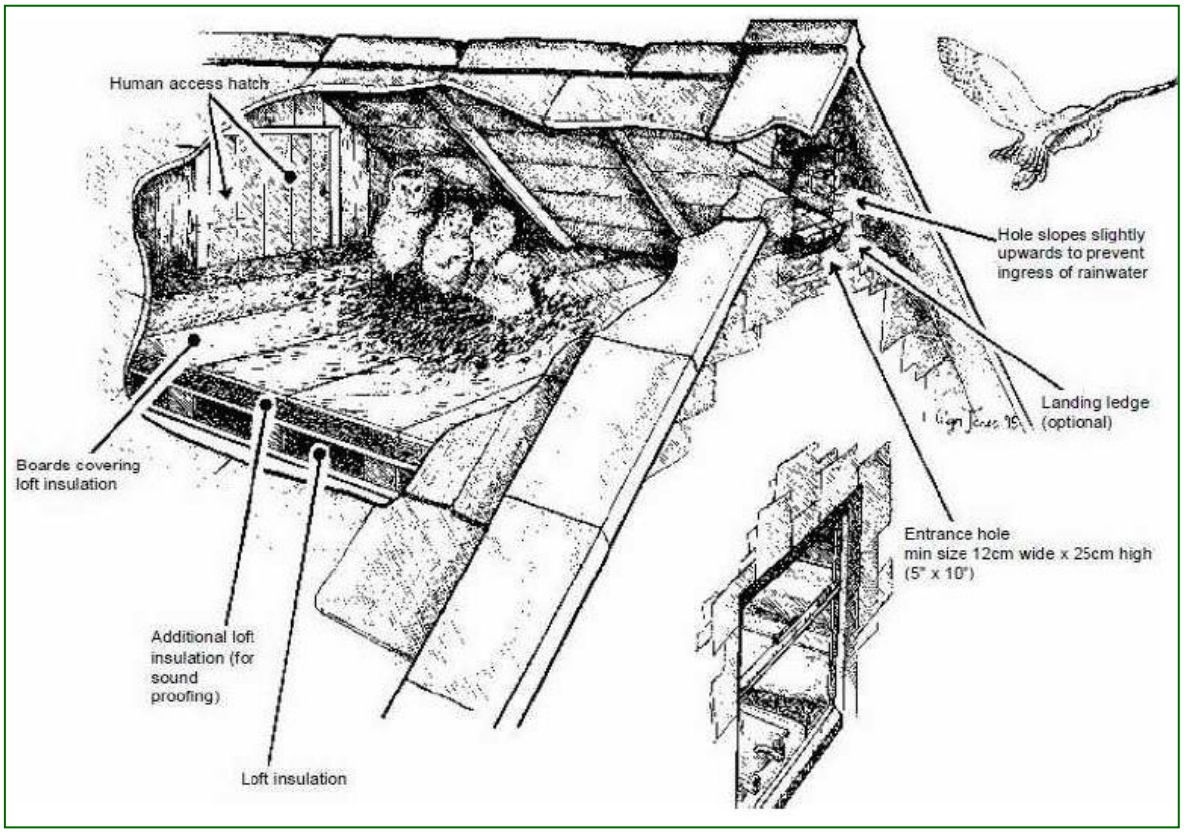
Photo 2. Barn B east elevation – potential in crevices throughout

Photo 3. Potential in crevices and lintels to the byres – minimal works should be conducted and methodology adhered here

Photo 4. East gable to Barn A and track at east – used by commuting brown long eared bats (possible roost in farmhouse)

10 APPENDIX TWO: BARN OWL AND BREEDING BIRD NEST PROVISION

1) Barn owl box built into the gable end (suggestion only)

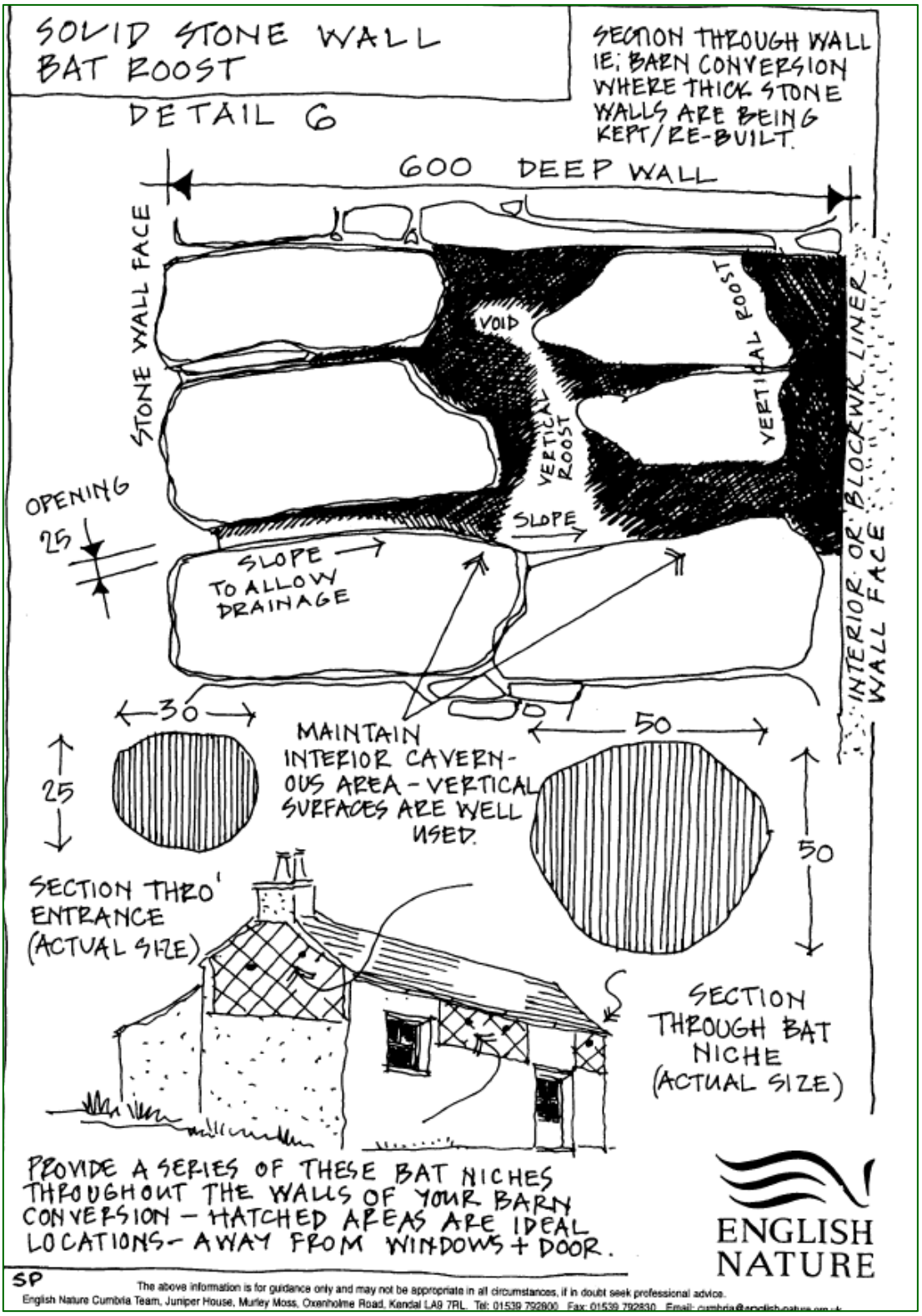


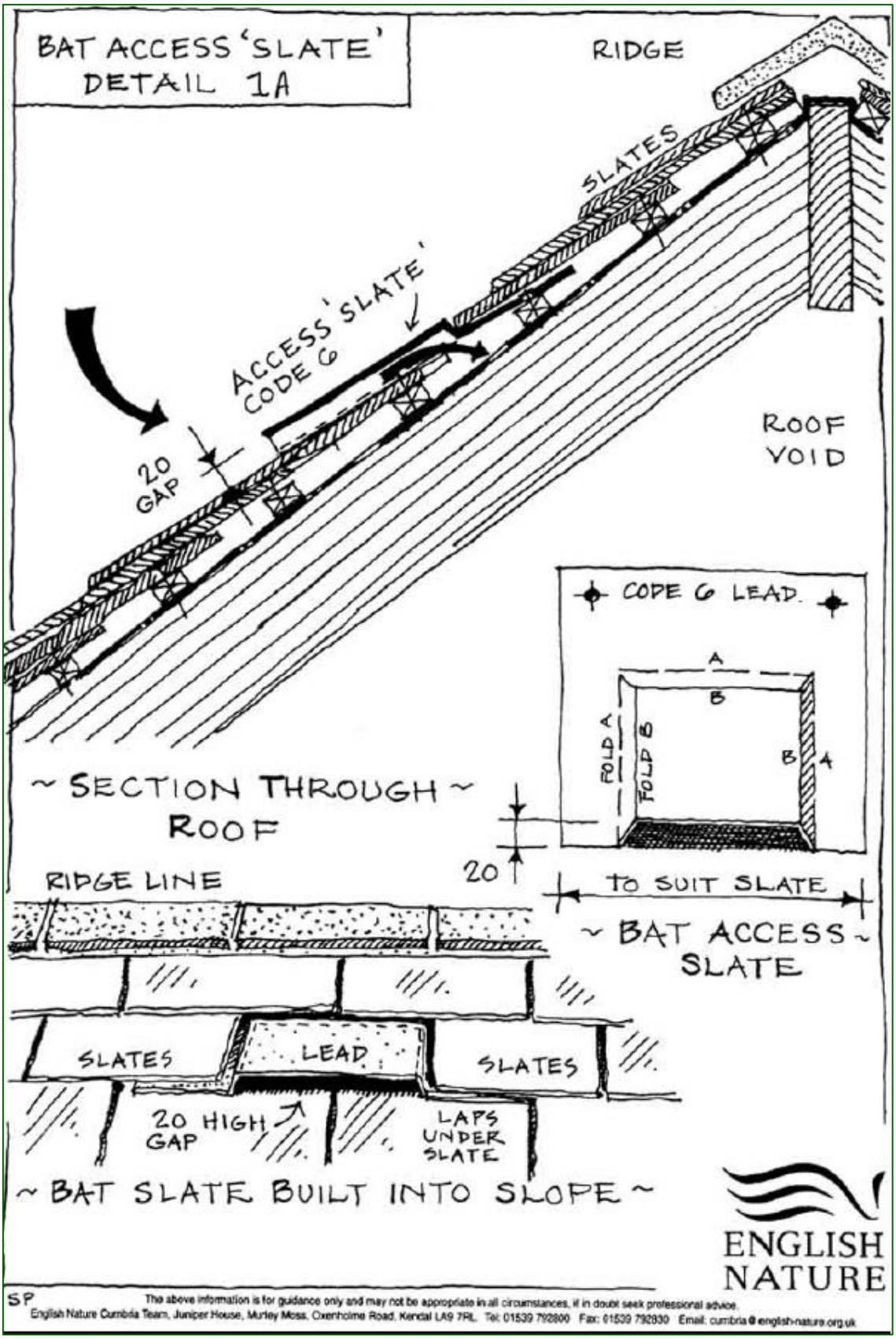
2) Swift nest boxes

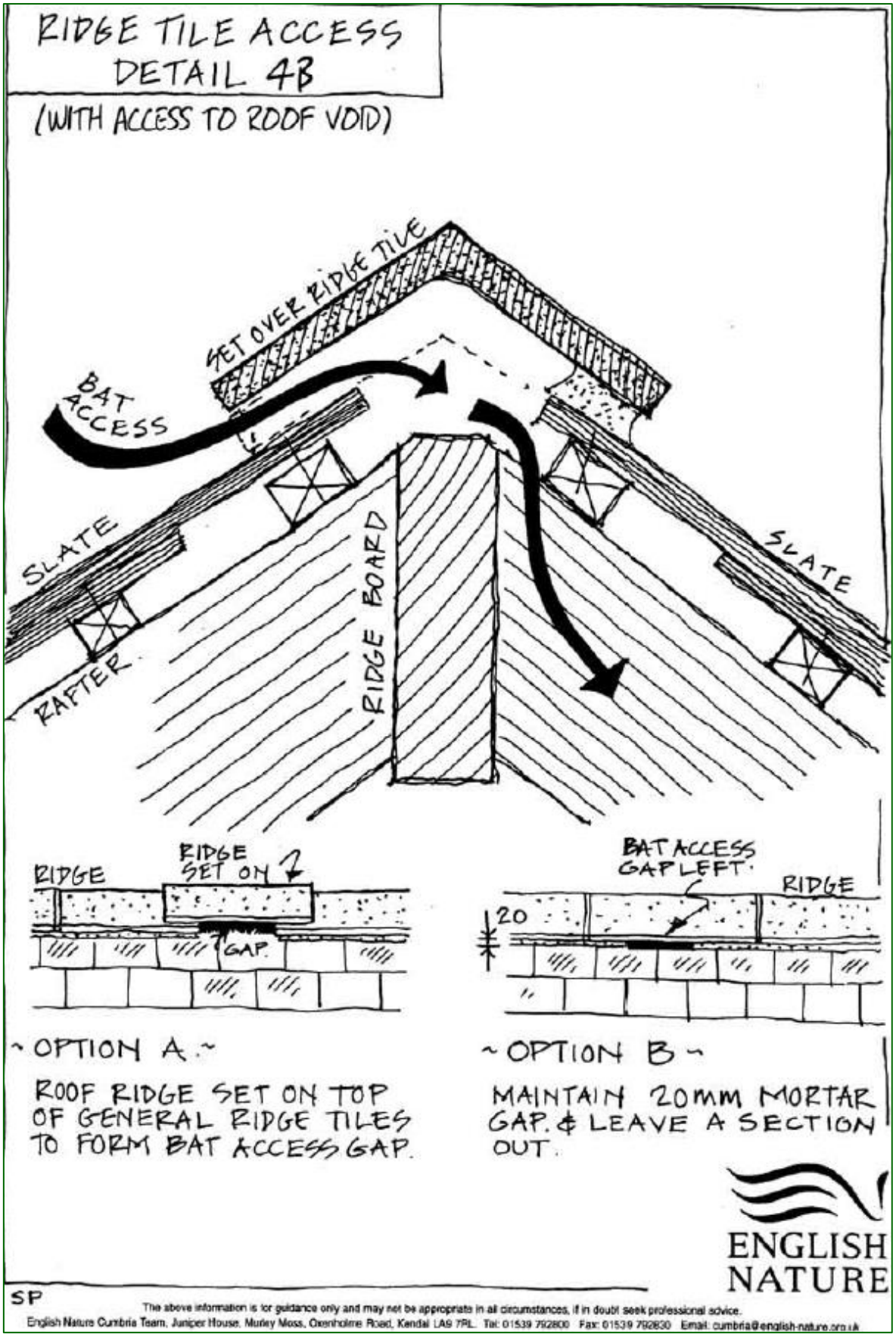
3) Swallow cups

4) House Sparrow nest provision

11 APPENDIX THREE: BAT ROOST PROVISION




BAT ACCESS 'SLATE'
DETAIL 1A
RIDGE
SLATES
ACCESS 'SLATE'
CODE 6
20
GAP
ROOF
VOID
~ SECTION THROUGH ~
ROOF
CODE 6 LEAD
A
B
B
4
FOLD A
FOLD B
20
TO SUIT SLATE
~ BAT ACCESS ~
SLATE
RIDGE LINE
SLATES
LEAD
SLATES
20 HIGH
GAP
LAPS
UNDER
SLATE
~ BAT SLATE BUILT INTO SLOPE ~
ENGLISH
NATURE
SP
The above information is for guidance only and may not be appropriate in all circumstances. If in doubt seek professional advice.
English Nature Cumbria Team, Juniper House, Murley Moss, Oxenholme Road, Kendal LA9 7RL. Tel: 01539 792800 Fax: 01539 792830 Email: cumbria@english-nature.org.uk


RIDGE TILE ACCESS DETAIL 4B
(WITH ACCESS TO ROOF VOID)
SET OVER RIDGE TILE
BAT ACCESS
SLATE
RAFTER
RIDGE BOARD
SLATE
RIDGE
RIDGE SET ON
GAP
BAT ACCESS GAP LEFT
RIDGE
20
~ OPTION A ~
ROOF RIDGE SET ON TOP OF GENERAL RIDGE TILES TO FORM BAT ACCESS GAP.
~ OPTION B ~
MAINTAIN 20mm MORTAR GAP & LEAVE A SECTION OUT.
ENGLISH NATURE
SP
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Caveat

- *Bats are mobile creatures and as such a conclusion that no bats were present at the time of this survey does not necessarily imply that bats will not be present when the work takes place.*
- *The findings of this report are only valid for twelve months. If work is to take place beyond this period further survey work will be required.*
- *All contractors and staff carrying out works on this site should have this report made available to them, and must be informed of the potential for bats and the possibility of encountering bats during the course of the works.*
- *This report does not absolve anyone from complying with the relevant legislation as regards bats as a legally protected species.*