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Sion Chapel Bat Method Statement

Required by Wrexham County Borough Council, consent P/2019/0828 dated 11/12/19 - Condition 20

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Method Statement Title:	Sion Chapel Bat Method Statement
Method Statement Version Number:	file number GLEC-1079-01
Method Statement Issue Date:	12 February 2020
Site Address:	Sion Chapel Pontfadog, Wrexham, LL20 7AR

Background and Supporting Information

A Executive Summary.

A Bat Survey based on Bat Conservation Trust guidelines (BCT, 2016) was carried out by GLEC Ltd at Sion Chapel, Pontfadog, Wrexham, LL20 7AR. The survey consisted of a thorough daytime inspection on 28 August 2019 followed by one evening and two pre-dawn bat activity surveys, plus passive monitoring in the chapel for eleven nights, all between 31 August and 11 September 2019. Works to build an extension on the northwest elevation are proposed.

A maximum count of 8 soprano pipistrelles was recorded roosting under barge boards at the apex on the SW gable. These surveys establish that the part of Sion Chapel proposed for extension works (NW elevation) are not a bat roost. Since the bats are close-by and the building has already been re-roofed and bargeboards fitted no Natural Resources Wales bat licence is required. A simple Bat Method Statement for the extension works is presented since the bats are close-by and this recommends suitable exterior lighting, bat boxes etc. to protect bats. No bat records were made inside the Chapel by the passive survey where an automatic bat detector was placed inside for eleven nights. The bats are on the exterior only under barge boards at the SW gable

The approach is to carry out works during periods when bats are least likely to be present (October to April inclusive) and crevice roosting space with suitable access for the species of bat recorded into the renovated and/ extended building.

The proposed extension works have been given planning approval by Wrexham County Borough Council, consent P/2019/0828 dated 11/12/19 and condition 20 requires this Bat Method Statement.

B Introduction

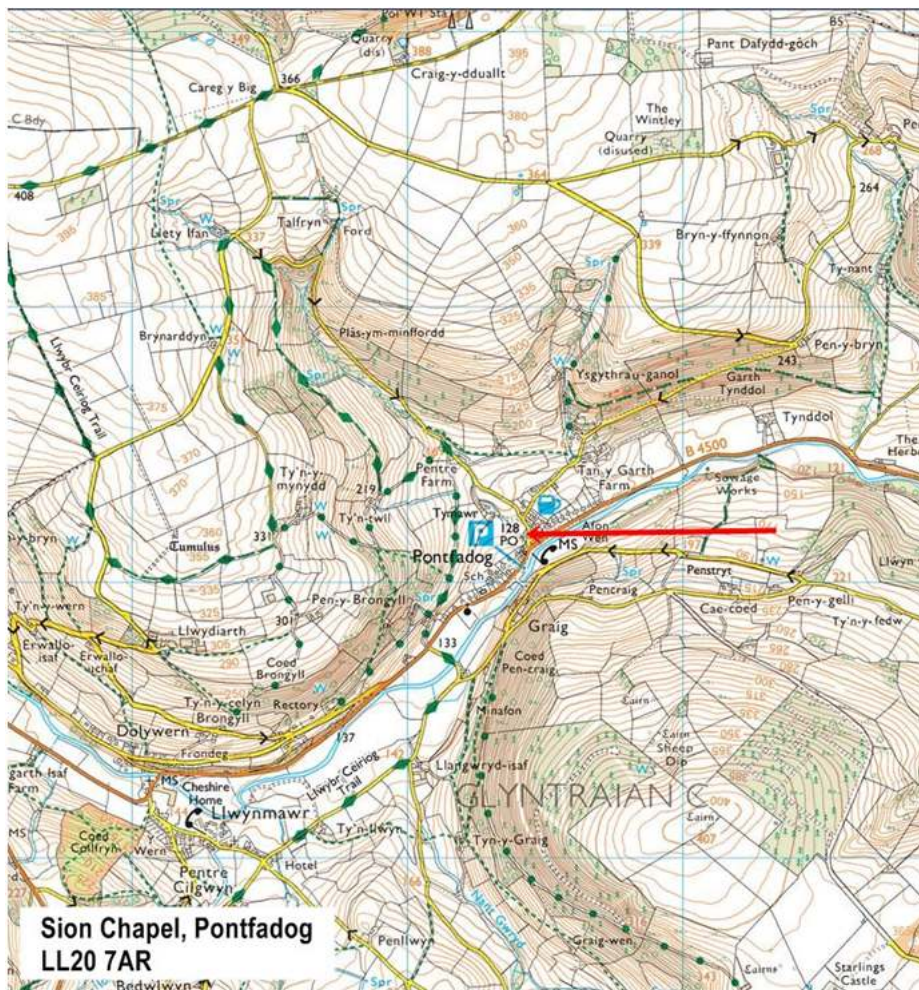
Background to activity/development

Works to build an extension on the northwest elevation are proposed. Since gaining planning consent for this the applicant is seeking discharge of Condition 20 of their approval:

20. No part of the development shall commence until a detailed Method Statement, together with timings, has been submitted to and approved in writing by the Local Planning Authority. The bat mitigation measures etc. shall be completed in all respects in strict accordance with the statement as may be approved.

C Details

C.1 Scaled plan/map of survey area





C.2 Field survey(s)

A Bat Survey based on Bat Conservation Trust guidelines (BCT, 2016) was carried out by GLEC Ltd at Sion Chapel, Pontfadog, Wrexham, LL20 7AR. The survey consisted of a thorough daytime inspection on 28 August 2019 followed by one evening and two pre-dawn bat activity surveys, plus passive monitoring in the chapel for eleven nights, all between 31 August and 11 September 2019. Works to build an extension on the northwest elevation are proposed.

Surveys were designed by Gerald Longley using standard techniques based on the guidance and information in the Bat Conservation Trust Bat Survey Guidelines (2016). The surveys of the building consisted of a thorough daytime inspection followed by one evening and two pre-dawn bat activity surveys. An Anabat SD2 bat detector was used to carry out passive monitoring inside for eleven nights during the survey period. See the Appendices for a full list of equipment used. The pre-dawn bat detector surveys looked for possible re-entry into the building by bats and the evening activity surveys looked for emergence from the building. The visits also provided checks to assess whether nesting birds used the building. The surveyors were Gerald Longley (Natural Resources Wales (NRW) Licence no. S086082/1) and Thomas Longley.

The external and internal survey of the building included an assessment for potential for nesting birds and bats and a search for evidence, such as pellets, dead bats, prey remains, droppings, urine marks and staining. Close-focusing binoculars were used immediately below potential roost areas. Droppings around the bases of and/or stuck to walls, on shelves, wall plates, purlins, etc. were searched for with the aid of a high-powered torch. Holes and cracks in the walls, purlins, beams etc. and behind any cladding were inspected with the colour video endoscope where they could be safely reached.

The building

Sion Chapel was an 18th century stone walled chapel that had been rendered and updated probably in Victorian times. The roof ridge was aligned southwest to northeast. The Chapel was the subject of a recent planning approval and consequently some repair works had been undertaken. It had a modern slate roof with breathable felt underneath and had new barge boards fitted recently and roof lights let into the roof, two on each pitch. It had a traditional wooden frame supporting the roof. It had large windows to both elevations and the northeast gable. All windows were intact. The ceilings inside had been removed and the chapel was open floor to roof. The floor was covered in building rubble/dust etc.

Outside there was possible access for bats through small gaps under ridge tiles and gaps under eaves and barge boards at gable ends and a few holes in the stonework where render had fallen off/ been removed and via a flue sweeping access in the chimney on the northwest elevation.

The surroundings

Sion Chapel was in a rural location on the north side of the small village of Pontfadog, approximately 8km west of Chirk. The building was well connected to the surrounding area by hedgerows and trees. In particular, a tall hedge of mature trees along a stream to the west and the hedged lane immediately north of the chapel entrance. These provided excellent vegetation links for bats. The wider landscape was of small pasture fields with hedgerows, trees, streams, areas of rough grassland/bracken, and woodland and plantations on the steeper slopes: all excellent and extensive foraging habitat for bats.

Daytime inspection – 28 August 2019

No bats or signs of bats were found on the outside of any part of the building. On a porch roof of the neighbouring house, which was close by at the southwest gable, there were a small number of small, fine grained bat droppings typical of pipistrelle species.

No bat droppings were found inside the chapel, however the building rubble and dust made a difficult substrate to spot such things if they were there.

No birds or signs of birds having been nesting were found.

First evening survey

31 August 2019 – 19.44 to 21.20 (sunset 20.04 BST)

A cool, dry, still and clear evening. 13°C (start of survey) – 12°C (end). 0/8 oktas cloud cover. The surveyors were placed so as to view all elevations of the building.

From 20.21 until 20.35, 6 soprano pipistrelle bats (*Pipistrellus pygmaeus*) (55KHz) emerged from under the apex of the southwest gable went west to the line of trees along the stream there.

Total emergence counts for the first evening survey:

6 soprano pipistrelle from SW gable apex

First Dawn survey

06 September 2019 – 05.20 to 06.20 (sunrise 06.31 BST)

A cool, clear morning. 12°C throughout survey. 1/8 oktas. The surveyors were placed so as to view all elevations of the building.

From 05.27 until 05.45, soprano pipistrelle passes were recorded along the north side of the building
From 05.45 to 05.59 8 were recorded entering under the apex of the southwest gable.

Total entry counts for the first dawn survey:

8 soprano pipistrelle into SW gable apex

Second Dawn survey

11 September 2019 – 05.30 to 06.35 (sunrise 06.40 BST)

A mild, clear breezy morning, 13°C (start of survey) – 14°C (end). 3/8 oktas. The surveyors were placed so as to view all elevations of the building.

From 05.38 until 05.59, soprano pipistrelle passes were recorded along the north side of the building
From 06.10 to 06.13 6 were recorded entering under the apex of the southwest gable.

Total entry counts for the first dawn survey:

6 soprano pipistrelle into SW gable apex

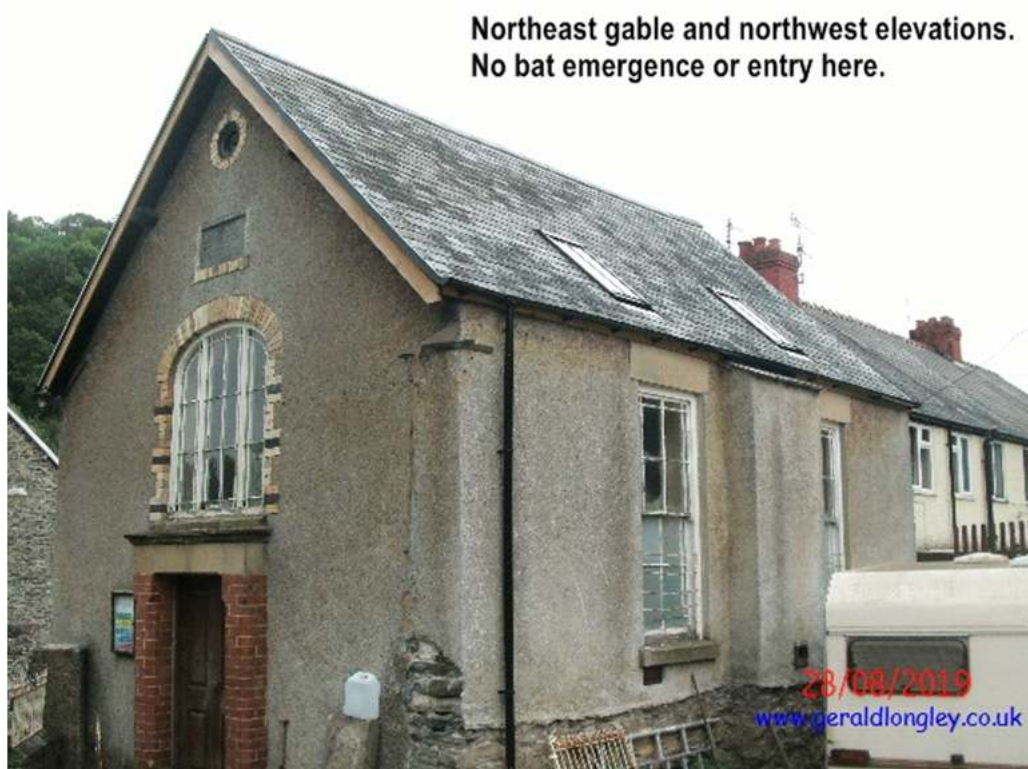
Passive survey

11 nights 31 August to- 10 September 2019

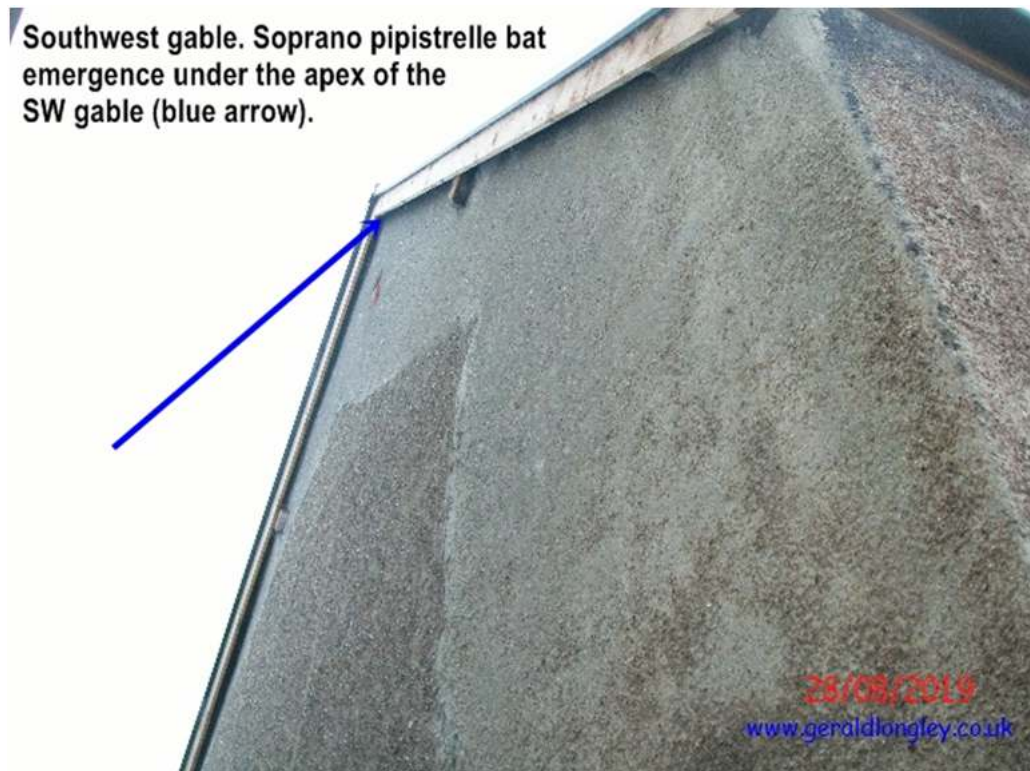
An Anabat SD2 bat detector was used to carry out passive monitoring for eleven nights inside the chapel. The detector was located with the microphone pointing into the building and away from the door and not at windows.

No bats were recorded.

See site pictures below for the single emergence point (SW gable apex) and areas of NO emergence/entry



Southwest gable. Soprano pipistrelle bat emergence under the apex of the SW gable (blue arrow).



Southeast elevations. Soprano pipistrelle bat emergence under the apex of the SW gable (blue arrow).



C.3 Interpretation/evaluation of survey results

Sion Chapel offered potential roosting habitat for bats under ridge tiles and eaves and bargeboards, in gaps in stone work where rendering was off. The building was very well connected to excellent and extensive bat foraging habitat in the surrounding area.

A maximum count of 8 soprano pipistrelles was recorded entering or emerging from under the apex of the southwest gable.

The absence of bat droppings inside the chapel and absence of any passive records from bats inside also meant bats did not use the interior. They were just entering and roosting under the slates or on the wall top.

It was considered that 8 soprano pipistrelles wasn't really enough bats for a maternity colony and they were more likely to be summer day roosts of individuals and small groups of non-breeding adults and/or juveniles roosting in a small colony in a place (southwest gable) in the building not including the part where the proposed works will take place (northwest elevation).

Since the chapel has already been reroofed and had new barge boards fitted recently no works to the southwest gable are envisaged by the applicant, and the work are all on the northwest elevation for the extension.

A maximum count of 8 soprano pipistrelles was recorded roosting under barge boards at the apex on the SW gable. These surveys establish that the part of Sion Chapel proposed for extension works (NW elevation) are not a bat roost. Since the bats are close-by and the building has already been re-roofed and bargeboards fitted no Natural Resources Wales bat licence is required.

The presence of roosting bats at the apex of the SW gable under bargeboards in the parts of the building not proposed for works at Sion Chapel (NW elevations) means that the Bat Method Statement presented here must be followed to ensure they are protected. But because they are in a different location to the works they are unlikely to be disturbed and therefore a Bat Licence from Natural Resources Wales is not needed by the applicant.

D Impact assessment – potential impacts in absence of mitigation/compensation.

D.1 Short-term impacts: disturbance

Adult and juvenile bats would not be disturbed or harmed by the works as they are in a location not affected by the works.

D.2 Long-term impacts: roost modification

The proposed extension works to the will result in no loss rather or modification of the existing roost at the SW gable.

D.3 Long-term impacts: roost loss

There will be no roost loss.

D.4 Long-term impacts: fragmentation and isolation

Any loss of linear features such as hedges or tree lines, loss of foraging areas such as woodland and long grass, increased lighting, or severance of flight lines by open spaces would be negative. No removal of vegetation is proposed.

D.5 Post-development interference impacts

The building has not been lived in before. Once it is extended and occupied there is likely to an increase in regular human and vehicle activity, particularly on summer evenings when people are likely to be active outside; sitting out or having barbecues for example. New lighting on and around the building could have an impact on any roosting and foraging bats.

D.6 Predicted scale of impact

The impact on the individual bats of all species concerned would be negligible and the impact on the numbers in the locality would be also negligible.

Delivery Information – Mitigation, compensation and monitoring

Description of how the impacts will be addressed in order to ensure no detriment to the maintenance of the population at a favourable conservation status.

E Works to be undertaken

Bat Survey -Soprano pipistrelle summer day roost (8 bats) only at the SW gable under barge board.

a) Timing of works

Carry out all the works to join the roof of the extension to the existing roof, to include all roof joining and provide the built-in bat boxes in a single period **01 October to 30 April**. Construction of footings, new extension walls extension soffits and barge boards, application of verge mortar, any rendering and removal of all scaffolding and internal fitment works can be carried out before and continue after this period.

b) Worker/contractor induction on bat presence

It is deemed that this is not necessary since bats are not expected to be found. If bats are found during the works, then work should **STOP** and a suitably qualified ecologist or Natural Resources Wales consulted for advice on how to proceed. A Bat Mitigation (European Protected Species) may then be needed from Natural Resources Wales.

c) Creation of temporary roosts for any bats found during conversion

It is deemed that this is not necessary since bats are not expected to be found. If bats are found during the works, then work should **STOP** and a suitably qualified ecologist or Natural Resources Wales consulted for advice on how to proceed. A Bat Mitigation (European Protected Species) may then be needed from Natural Resources Wales.

d) Contingency for discovering bats

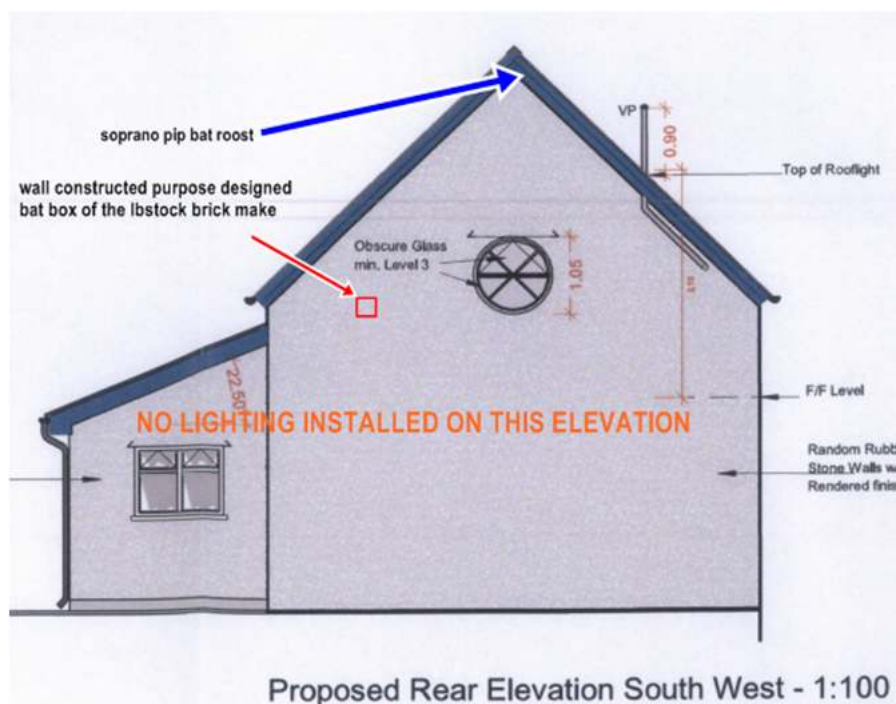
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e) New bat roosting habitat

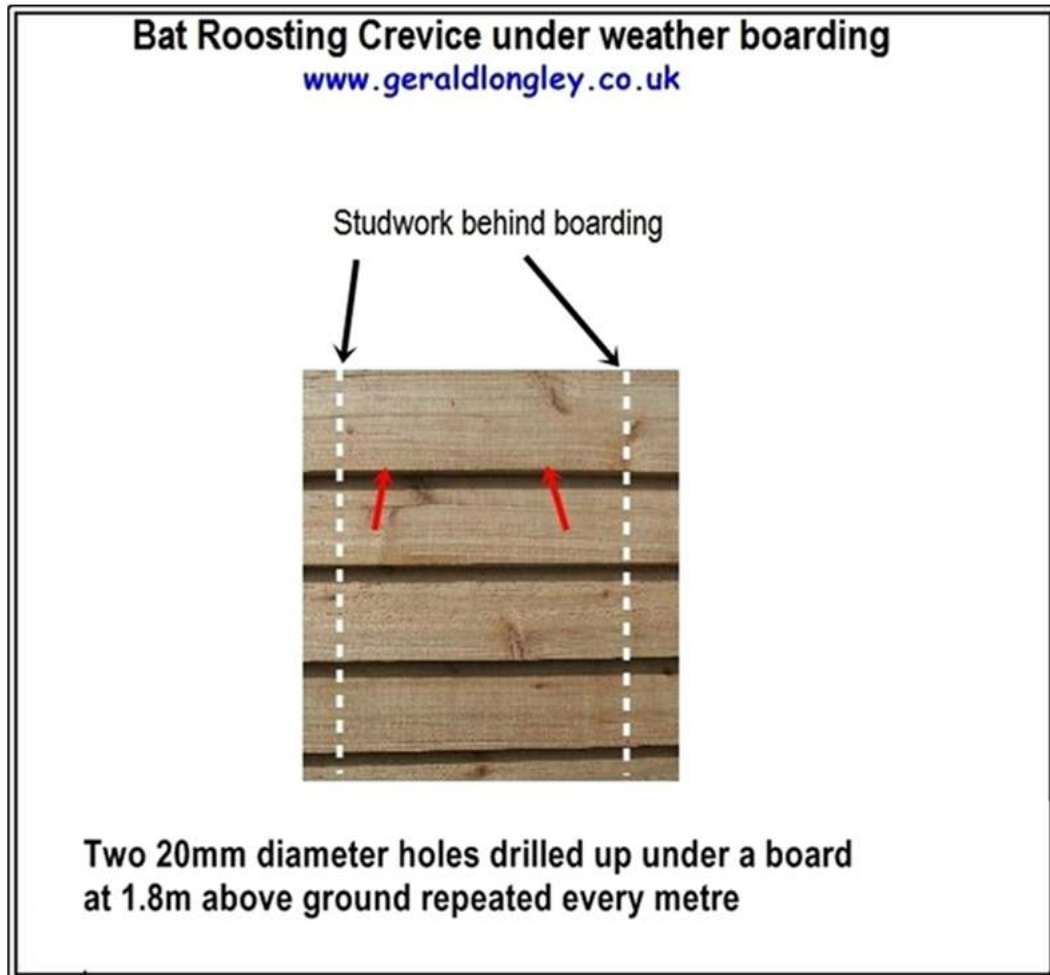
- (i) Provide two wall constructed purpose designed bat boxes of the Ibstock brick make using their design C, (see details <https://ibstockbrick.co.uk/kevington/eco-products/>), one each on the southwest and northwest elevations at over 3m height.



The boxes will be installed in the locations indicated on the plans below:

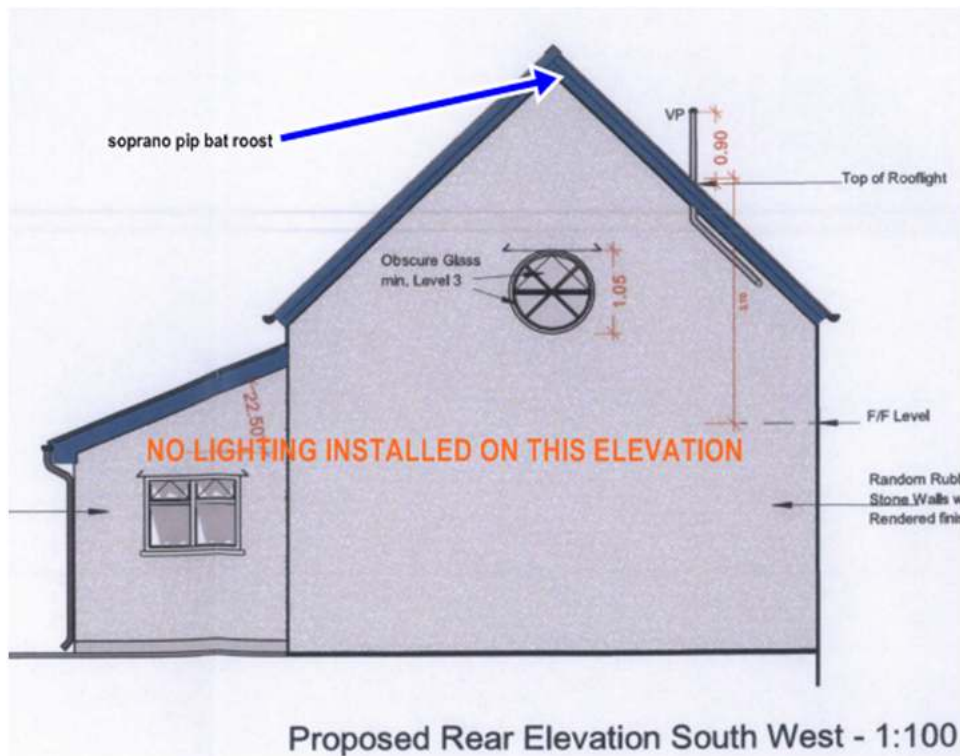


- (ii) If any of the new extension walls have wood cladding this should be horizontal and on battens 50mm deep and have pairs of holes, 20mm in diameter, at approx. 1m spacing, drilled up vertically at the bottom edge of a cladding board, at approx. 1.8m from the ground on each elevation to allow access for bats behind the cladding into the cavities between battens. See diagram 'bat roosting crevice under weather boarding' below.



- (iii) External lighting anywhere on or near the chapel will meet the requirements of ILP (2018) Guidance note 8/18: Bats and Artificial Lighting in the UK. Lighting will be warm white spectrum (ideally <2700 Kelvin), motion-sensitive only and on a short timer (1 min), positioned no higher than 2.5m above ground level, directed downwards only (with no up-lighting of any sort) away from bat roost access points (southwest gable) and motion-sensitive only to humans and not smaller animals.

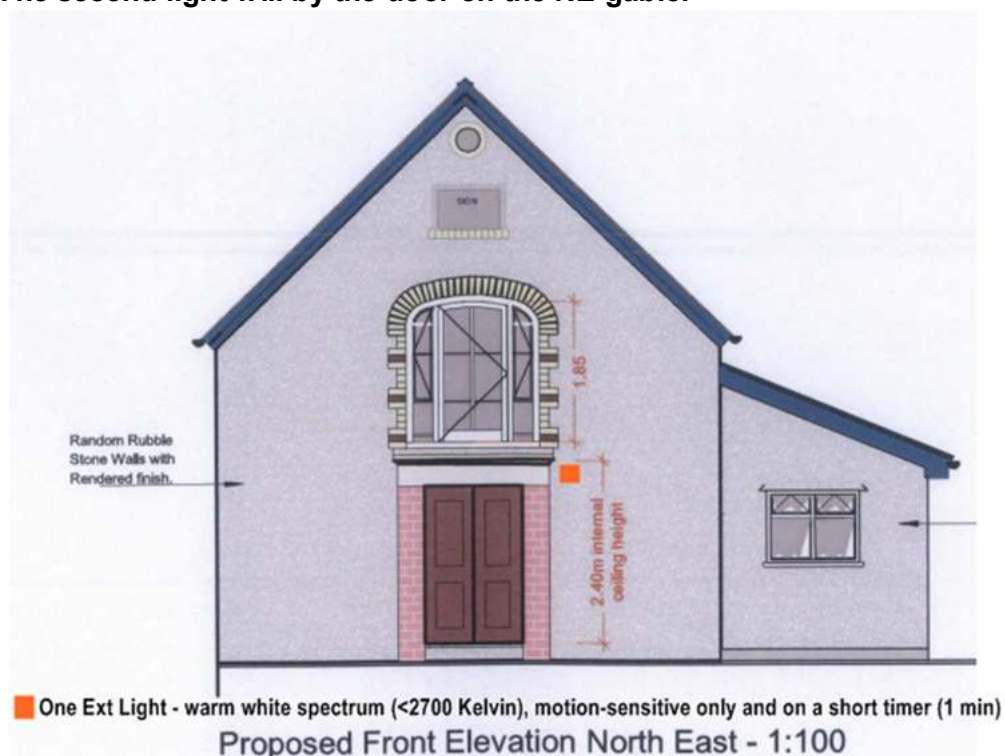
Specifically no external lighting will be installed that projects any light onto the SW gable end of the Chapel (where the bat roost is).



2 exterior lights will be installed. One on the NW elevation by the back door on the new extension.



The second light will be by the door on the NE gable.



- All exterior lighting luminaires will have NO UV elements when manufactured. Metal halide, fluorescent sources will NOT be used.
- LED luminaires will be used due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum light (ideally <2700Kelvin) will be used to reduce the blue light component

- **The external lighting will be set on by motion-sensors and have short (1min) timers.**

.3 Mechanisms for ensuring delivery of mitigation and compensation measures

A post-mitigation works inspection will be carried out by Gerald Longley or Mary Thornton (accredited agent) and a report with photographs submitted to the local Authority as part of Condition 21 of the Planning Permission.

E.4 Mitigation contingencies

The main contingency is the finding of a bat during works to build the extension. **If a bat is found, Natural Resources Wales will be consulted on advice on what to do, and any building works will stop until this advice has been given and then implemented.**

F Post-development site safeguard

Population monitoring, roost usage etc.

A Monitoring Strategy for bats will be drawn up as required by condition 22.

G Timetable of works.

Timetable of Works			
Bat Method Statement			
Sion Chapel, Pontfadog, Wrexham, LL20 7AR			
Gerald Longley, Ecologist (GLEC Ltd) 07980 194639			
(1 page – 3 projects)			
Project No.	Work/Project	Timing	Who?
01	Provide two wall constructed purpose designed bat boxes of the Ibstock brick make using their design C, one each on the southwest and northwest elevations at over 3m height.	Need a range of dates e.g. fitted between 01 Oct 2020 and end April 2021	Ronald Smith
02	If any of the new extension walls have wood cladding this should be horizontal and on battens 50mm deep and have pairs of holes, 20mm in diameter, at approx. 1m spacing, drilled up vertically at the bottom edge of a cladding board, at approx. 1.8m from the ground on each elevation to allow access for bats behind the cladding into the cavities between battens. See diagram 'bat roosting crevice under weather boarding' below.	Need a range of dates e.g. fitted between 01 Oct 2020 and end April 2021	Ronald Smith
03	External lighting anywhere on or near the chapel will meet the requirements of ILP (2018) Guidance note 8/18: Bats and Artificial Lighting in the UK. Lighting will be warm white spectrum light (ideally <2700Kelvin), motion-sensitive only and on a short timer (1 min), positioned no higher than 2.5m above ground level, directed downwards only (with no up-lighting of any sort) away from bat roost access points (southwest gable) and motion-sensitive only to humans and not smaller animals	Need a range of dates e.g. fitted between 01 Oct 2020 and end April 2021	Ronald Smith