stark ecology ltd

BAT SURVEY REPORT

GREENACRE, CROCKERTON, WILTSHIRE

BY

stark ecology ltd

AUGUST 2023

stark ecology ltd

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INTRODUCTION

Stark Ecology Ltd was asked by BTA Architects to carry out a building inspection for bats survey of Greenacre, Crockerton, Wiltshire. The property is proposed for renovation and extension.

The property is located at OS Grid Reference ST861422 and is in the village of Crockerton, surrounded by other rural residential properties with large, mature gardens and mixed farmland with excellent hedgerow and woodland connectivity.

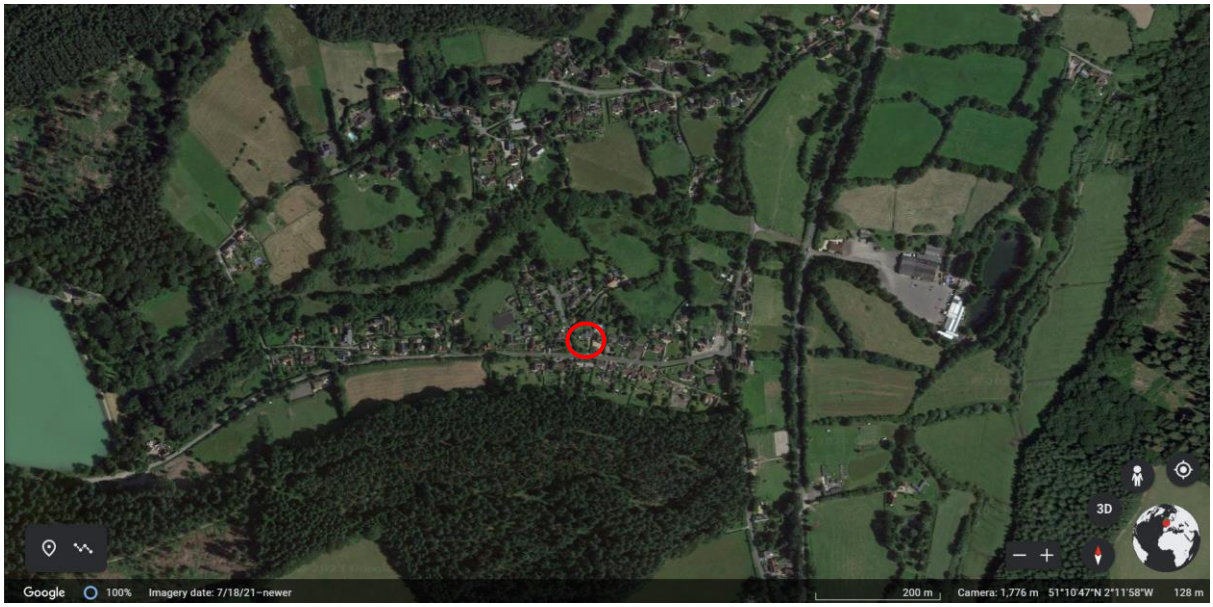


Fig 1: Greenacre is surrounded by mixed farmland with excellent hedgerow and woodland connectivity.

The building inspection survey was carried out by Georgie Starkie BSc (Hons) MSc MRSB (Natural England Class 2 Bat Licence 2015-13123-CLS-CLS) on 27th September 2022, when the weather conditions were overcast but dry with no wind and the temperature was approximately 15ºC.

The property was found to have High potential to support roosting bats and so emergence and re-entry surveys were instructed. The first emergence survey was carried out by Georgie Starkie, Sarah Hobbs PhD, Adam Young (Natural England Class 2 Bat Licence) and Sam Fordham on 6th July 2023 when the weather was clear and dry with no wind. The temperature was between 12 and 18°C.

A second emergence survey was carried out by Georgie Starkie, Sarah Hobbs, Sam Fordham and Craig Brakes (Natural England Class 2 Bat Licence) on 20th July 2023. The weather was clear and dry with no wind and the temperature was between 12 and 20°C.

A re-entry survey was carried out on 3rd August 2023 by Georgie Starkie, Sarah Hobbs and Craig Brakes. The weather was overcast and mostly dry with a light rain shower between 0440 and 0500. There was a light wind and the temperature was between 14 and 19°C.

METHODOLOGY

Data Search

The MAGIC website was reviewed for details of European Protected Species licences granted by Natural England for sites within 2km of Crockerton and for details of any statutory designated sites within 2km.

Building Inspection for Bats

The house was surveyed internally and externally in accordance with the Bat Survey Guidelines, published by the Bat Conservation Trust (BCT). Externally it was examined for cracks, crevices or other features that could be used by bats for shelter or as access points to voids within the building. Internally it was surveyed for signs of use by bats such as droppings, rub marks or bats themselves.

Emergence and Re-entry Surveys

Two emergence surveys were carried out on 6th and 20th July 2023, when the weather conditions were suitable. The surveys commenced 15 minutes before sunset and ended 90 minutes after sunset. Surveyors used EM Touch Pro and Anabat SD2 detectors to aid species identification and a Panasonic HC-VX870 with infra-red, supported by a Nightfox XC5 850nm torch, was used to aid visual assessment of bat activity associated with the property. Bat activity in the surrounding area was also noted.

One re-entry survey was carried out on 3rd August 2023, when the weather conditions were suitable. The survey commenced 90 minutes before sunrise and ended 15 minutes after sunrise. Surveyors used EM Touch Pro and Anabat SD2 detectors to aid species identification. Bat activity in the surrounding area was also noted.

Limitations

This survey provides a brief snapshot of the site at the time the work was carried out and while every step was taken to ensure that the results of the survey are accurate, features of ecological value can change and therefore this report is only valid for 12 months.

RESULTS

Data Search

Crockerton does not lie within the core zones associated with the Bath & Bradford on Avon Bats Special Area of Conservation (SAC) or the Chilmark Quarries Bats SAC.

The River Avon SAC and Site of Special Scientific Interest (SSSI) is approximately 550m to the southeast and is designated as it is a large, lowland river system that includes sections running through chalk and clay, with transitions between the two.

Natural England has granted one licence for works affecting European Protected Species within 2km of Greenacre:

- In 2014, at a site which is c.1.7km to the southeast, a licence was granted for work resulting in damage to a brown long-eared *Plecotus auritus* maternity roost and damage and destruction of resting places used by serotine *Eptesicus serotinus*, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *P. pygmaeus*.

Building Inspection - External

Greenacre is a single storey property which has stone walls and a cement tiled multi-pitch roof. The roof tiles are large and are generally tight fitting but a small number were noted to be lifted.



Fig 2: The rear (north) face of Greenacre.

This photo taken 27th September 2022.

Some gaps in the mortar at the roof verges were noted but the uPVC and cement fibre soffits are tight fitting, with no gaps or crevices behind or around them noted.



Fig 3: The mortar is missing at the roof verges in several places.

This photo taken 27th September 2022.

There is a uPVC conservatory on the western face of the house.



Fig 4: There is a uPVC conservatory on the west face of the house.

This photo taken 27th September 2022.

Some of the walls are rendered and there is painted timber cladding on the north and south faces of the house. No crevices behind or around the cladding were identified.



Fig 5: There is painted timber cladding on the north and south faces of the house.

This photo taken on 27th September 2022.

The house is surrounded by an amenity garden with a close mown lawn and amenity shrubs.

Building Inspection – Internal

The loft spaces of the property are connected and are no more than 1m high to the ridge. The roof is lined with bitumen roofing felt and the loft space was insulated with fibreglass material.



Fig 6: The roof of the house is lined with bitumen felt and insulated with fibreglass material.

This photo taken on 27th September 2022.

Bats

Externally the property was generally found to be well sealed but crevice features which could be suitable for roosting bats were noted in the following areas:

- Behind roof tiles where they overlap onto fascia boards.
- Where mortar is missing at the roof verges.
- Below the roof tiles which are lifted.

Internally no evidence of bats was found but there were a small number of mouse and rat droppings in the loft space.

The property was considered to have High potential to support roosting bats in external crevices and so a full suite of emergence and re-entry surveys were instructed.

Emergence Survey – 6th July 2023

Only low levels of bat activity were recorded over the site during this survey and no bats were recorded emerging from the property. Foraging by common pipistrelle, soprano pipistrelle, serotine and noctule *Nyctalus noctula* bats was recorded.

Full results of this survey are set out in Appendix 2.

Emergence Survey – 20th July 2023

During this survey low levels of foraging were recorded over the site and surroundings by common pipistrelle, soprano pipistrelle, noctule, serotine and brown long-eared.

At 2108 a soprano pipistrelle bat was recorded heading north from the house, followed by a second soprano pipistrelle at 2111. These bats were not seen to the south of the property at this time and so it is likely they emerged from the roof in an area that was not visible from the garden.

Full results of this survey are set out in Appendix 3.

Re-entry Survey – 3rd August 2023

During this survey one soprano pipistrelle bat returned to a crevice feature on the south face of the house and one common pipistrelle bat returned to a crevice on the north face of the property.



Fig 7: One soprano pipistrelle bat returned to roost in this location at 0525 on 3rd August 2023.



Fig 8: One common pipistrelle bat returned to a roost in this location at 0548 on 3rd August 2023.

Commuting and foraging over the garden was recorded by common pipistrelle bats and soprano pipistrelle bats during this survey with occasional passes by serotine, noctule and a brown long-eared bat.

Full results of this survey are set out in Appendix 4.

LEGISLATION

Bats

Bats are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2017 and under Section 9 of the Wildlife and Countryside Act 1981.

Under this legislation it is an offence to:

- Kill, injure or handle a bat;
- Possess a bat (whether alive or dead);
- Disturb a roosting bat; or
- Sell (or offer for sale) a bat (without an appropriate licence).

In addition, it is an offence to damage, destroy or obstruct access to a bat roost, whether it is currently in use or not.

Where bats are present within a feature or structure on a development site in England, a licence may be granted by Natural England for works to alter or remove the roost. Licence applications can only be made once full planning permission has been granted and a suitable mitigation strategy (set out in a detailed Method Statement) forms an essential part of this application process. Works are likely to be seasonally restricted and must be carried out in accordance with the Method Statement agreed with Natural England.

DISCUSSION AND CONCLUSIONS

Bats

A building inspection survey and emergence and re-entry surveys of Greenacre have identified the following roosts in the property:

- A common pipistrelle day roost behind an overlapping roof tile on the northern part of the roof.
- A soprano pipistrelle day roost behind an overlapping roof tile on the southern part of the roof.

Both these roosts will be destroyed when work to re-roof the property is carried out and in order to proceed lawfully, work to re-roof and extend some areas of the property will require a licence from Natural England. An application to Natural England for a licence can be made once planning permission has been granted and any conditions relating to wildlife discharged. Under the terms of the licence, and to maintain the Favourable Conservation Status of bats at the site, works to strip roof materials (tiles, batten, timber and felt), and any other area where bats could be seeking shelter will need to be carried out by hand under ecological supervision. The bat roosts in this property are of low conservation significance (Figure 4, Bat Mitigation Guidelines) so this work can be carried out at any time of the year, although not when daytime temperatures are below 8°C, in heavy rain or strong winds.

Tiles, batten, timber, felt and other materials will be carefully removed by hand and will be lifted, not rolled, to prevent crushing any bats which may be present beneath. All materials will then be checked on all surfaces for bats before stacking or throwing.

Any bats that are found will be caught by the supervising ecologist and placed in a Schwegler 2F bat box (or suitable equivalent) which will be installed on a tree in a quiet area of the garden, away from disturbance by construction works.

Mitigation

Prior to re-roofing and extension work commencing, two Schwegler 2F bat boxes (or suitable equivalents) will be placed on retained trees in the garden of the property. These bat boxes will remain in-situ on completion of renovation work, to provide ongoing roosting opportunities for bats at this site.

In addition, permanent provision for crevice dwelling species will be provided in the east face of the new garden building with two integrated bat boxes (eg. Integrated

Eco Bat Box | NHBS Practical Conservation Equipment) built into this building in a sheltered area close to high quality foraging habitat and hedgerow connectivity.

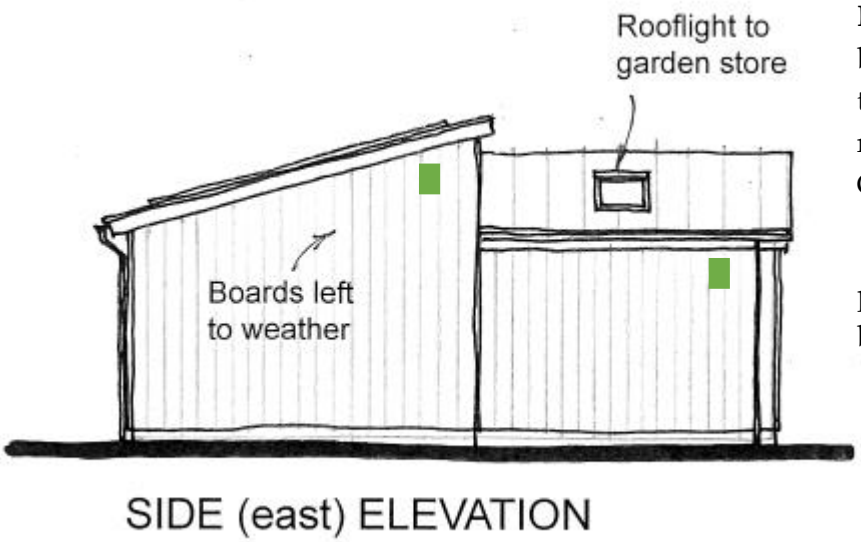


Fig 9: Two integrated bat boxes will be installed in the eastern aspect of the new garden building at Greenacre.

Suggested positions for integrated bat boxes.

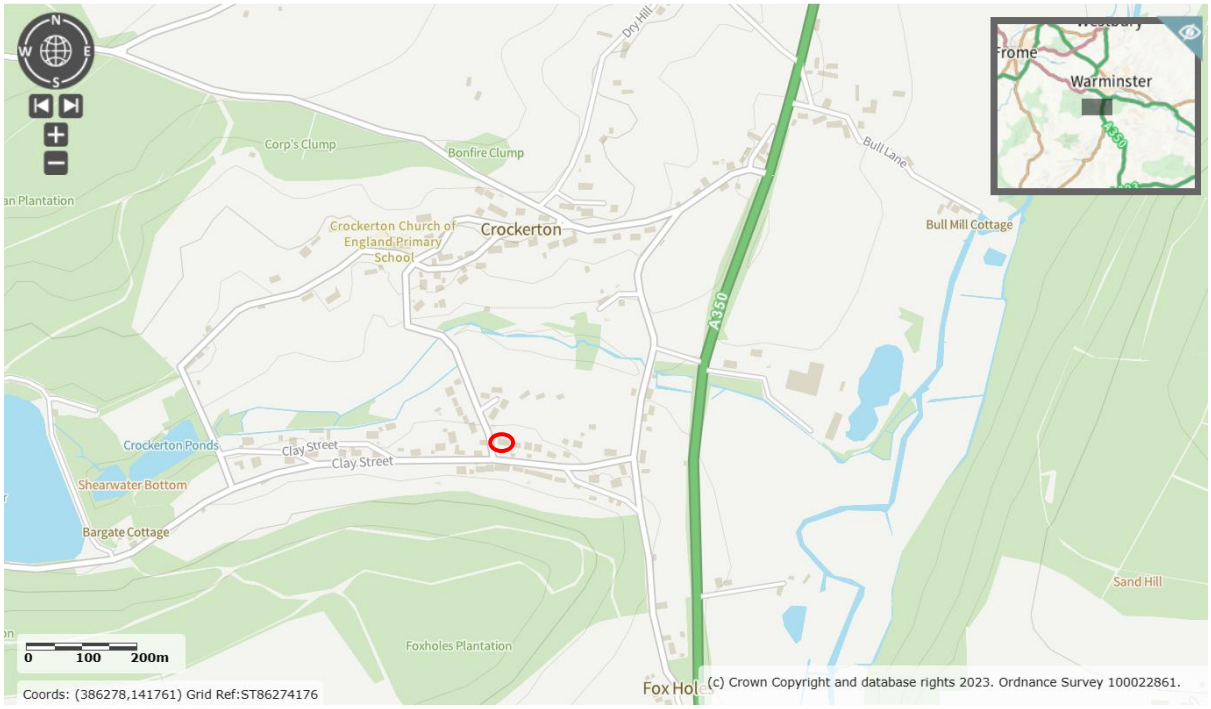
REFERENCES

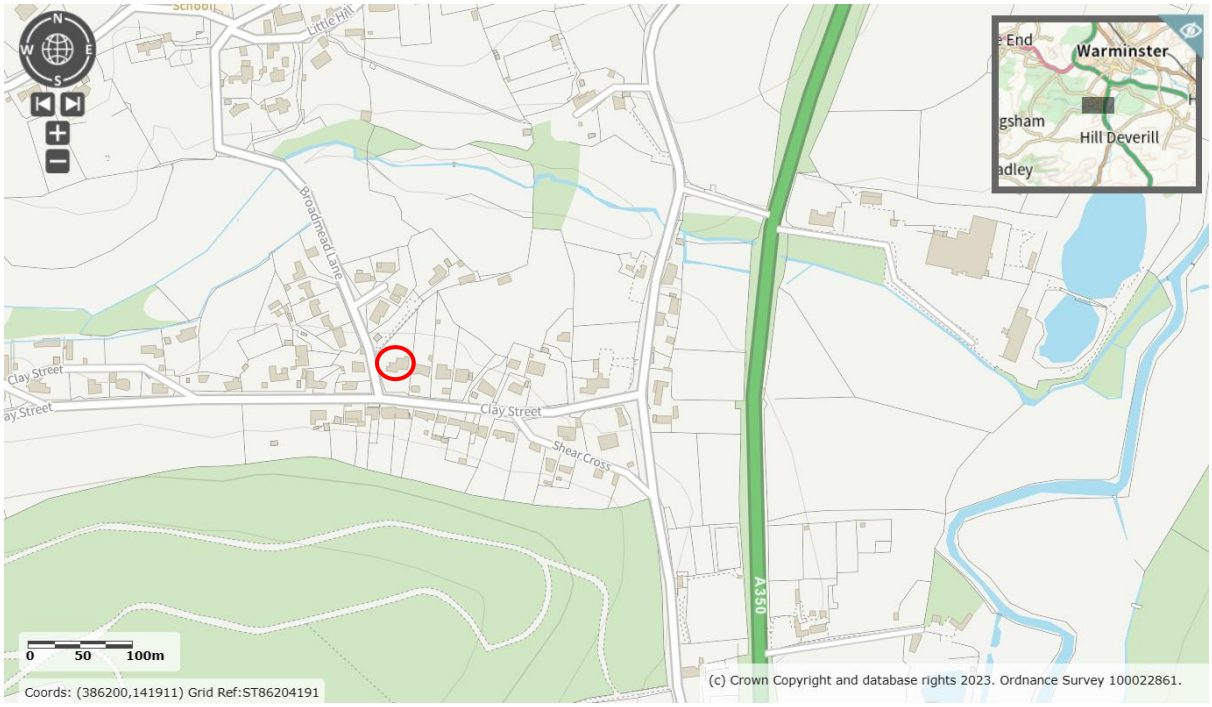
http://www.magic.defra.gov.uk/

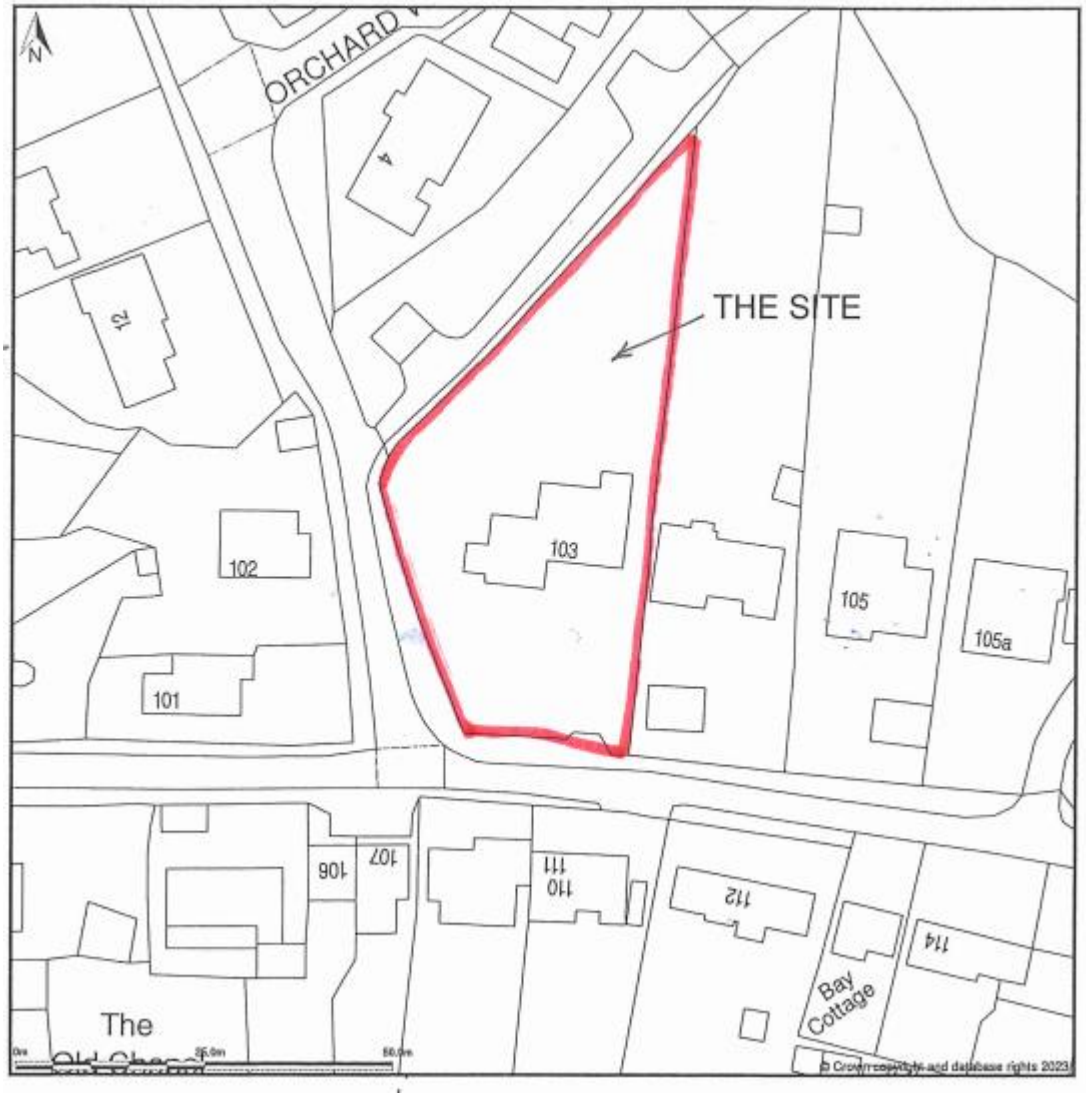
Collins, J. (ed.). (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition.). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

Mitchell-Jones, A.J. 2004. Bat Mitigation Guidelines. English Nature.

APPENDIX 1: SITE MAP






N
ORCHARD
4
12
THE SITE
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102
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105a
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Bay Cottage
The
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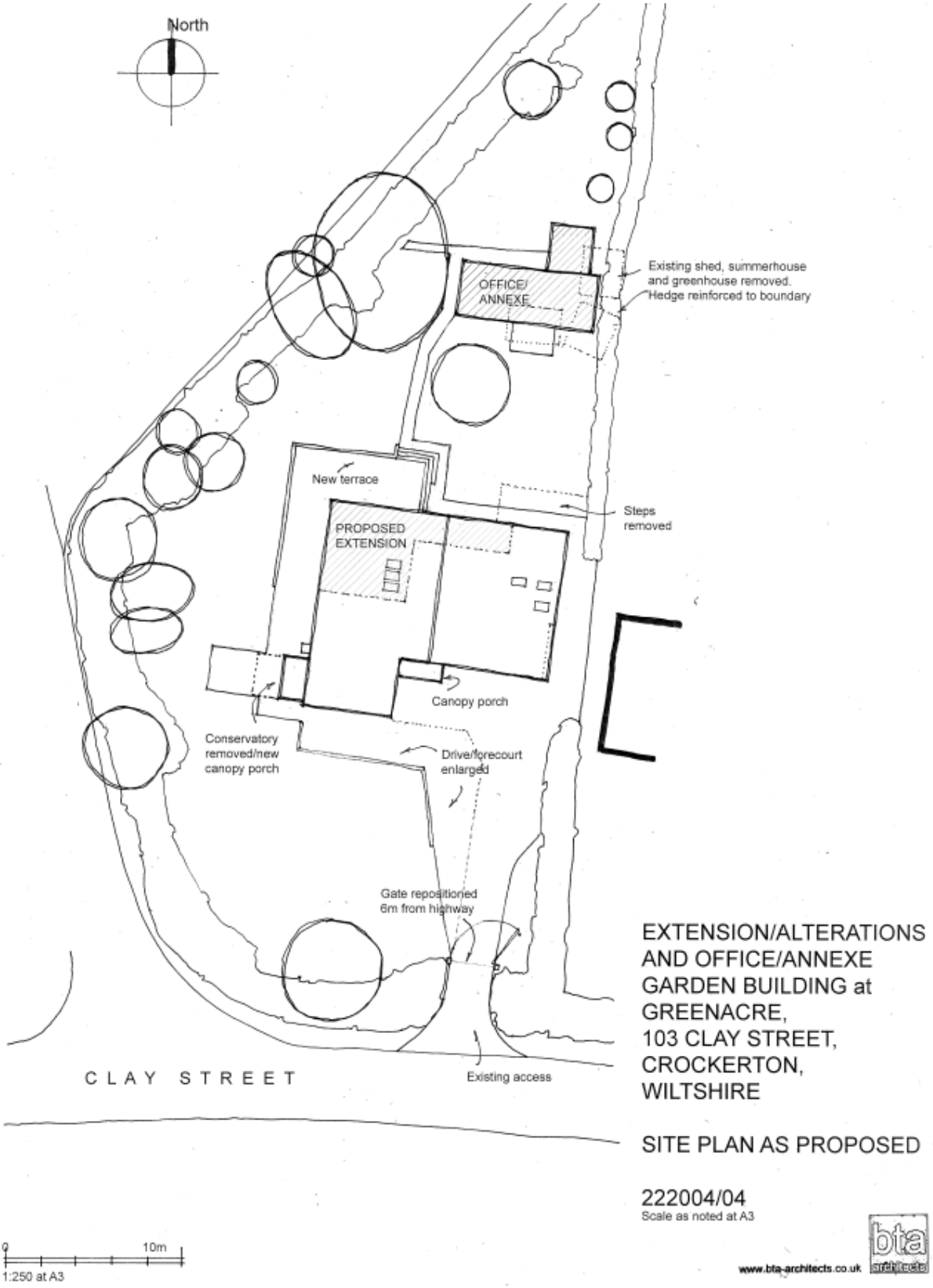
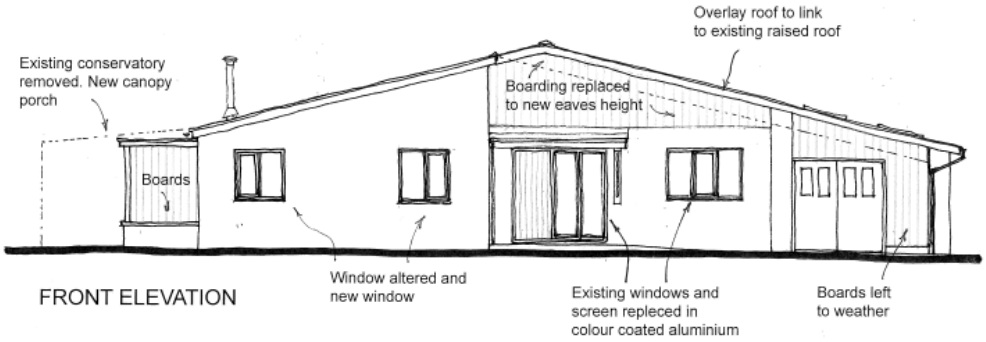
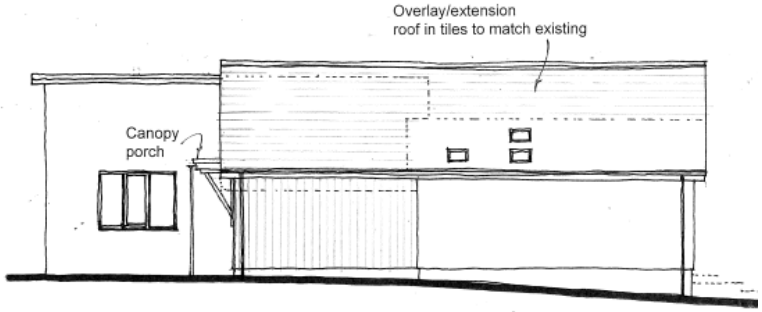
Site Proposals



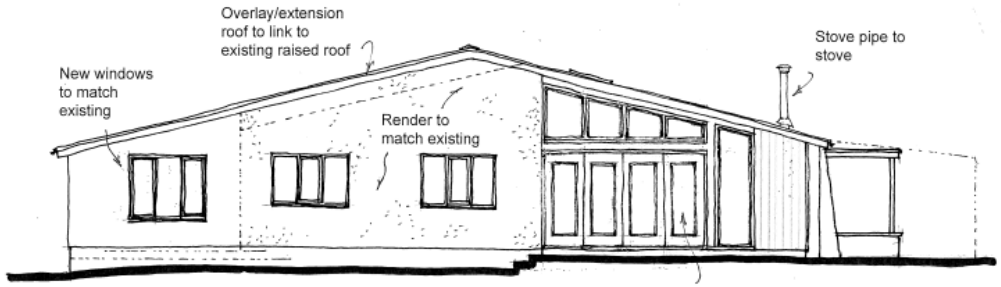
purposes only.
Any discrepancies from this drawing should be notified to the Architect.
If in doubt, ask.



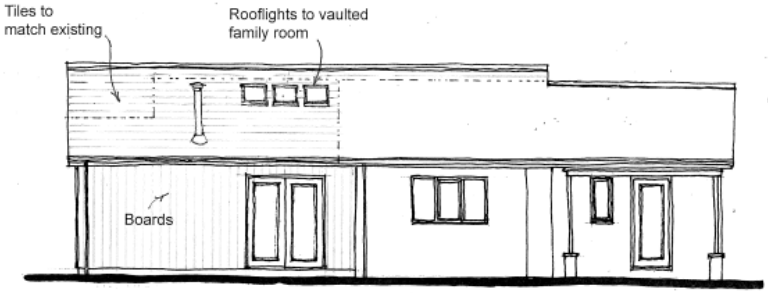
FRONT ELEVATION



SIDE (east) ELEVATION



REAR ELEVATION



SIDE (west) ELEVATION

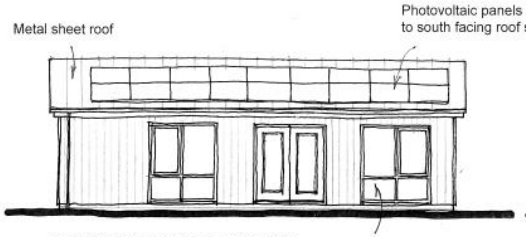
0 5m
1:100 at A3

EXTENSION/ALTERATIONS AND OFFICE/ ANNEXE GARDEN BUILDING at GREENACRE, 103 CLAY STREET, CROCKERTON, WILTSHIRE

ELEVATIONS AS PROPOSED

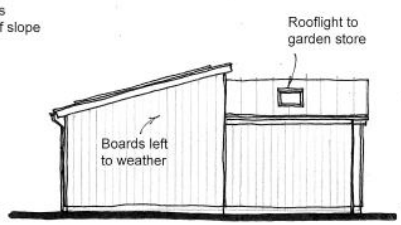
222004/06
Scale as noted at A3

purposes only.
Any discrepancies from this drawing should be notified to the Architect.
If in doubt, ask.

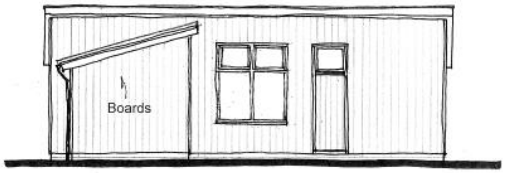


FRONT (south) ELEVATION

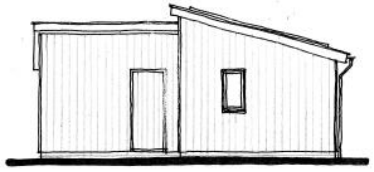
Colour coated aluminium doors and windows



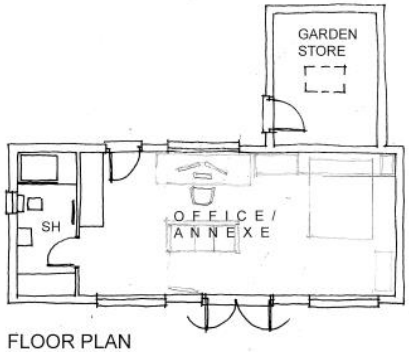
SIDE (east) ELEVATION



REAR (north) ELEVATION



SIDE (west) ELEVATION



FLOOR PLAN

0 5m
1:100 at A3

EXTENSION/ALTERATIONS AND OFFICE/ANNEXE GARDEN BUILDING at GREENACRE, 103 CLAY STREET, CROCKERTON, WILTSHIRE

GARDEN BUILDING DETAILS

222004/07
Scale as noted at A3

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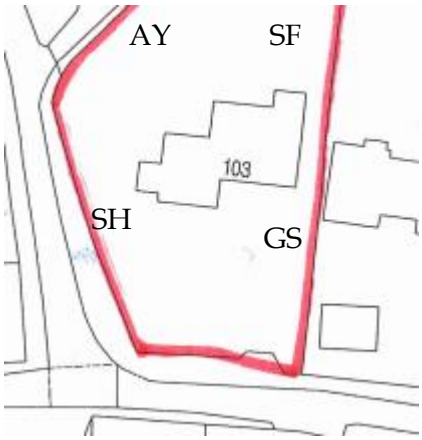
APPENDIX 2: EMERGENCE SURVEY 6TH JULY 2023



Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 6th July 2023

Weather Conditions: 0% cloud, no rain, light wind

Max Temp: 17.8°C Min Temp: 12.2°C

Sunset Time: 2125 Survey Type: Emergence

Survey Starts: 2110 Survey Ends: 2255 Surveyor: GS

Time	Map Ref	Species	Activity
2129		45 pip	Flying from AY to SH quite high over site
2138		45 pip	HnS
2245		45 pip	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 6th July 2023

Weather Conditions: 0% cloud, no rain, light wind

Max Temp: 17.8ºC Min Temp: 12.2ºC

Sunset Time: 2125 Survey Type: Emergence

Survey Starts: 2110 Survey Ends: 2255 Surveyor: SH

Time	Map Ref	Species	Activity
2122		45 pip	Commuting over garden from AY position
2127		45 pip	Foraging over garden as it commutes N to S
2122		45 pip	Commuting high over site
2131		45 pip	HnS
2140		45 pip	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 6th July 2023

Weather Conditions: 0% cloud, no rain, light wind

Max Temp: 17.8ºC Min Temp: 12.2ºC

Sunset Time: 2125 Survey Type: Emergence

Survey Starts: 2110 Survey Ends: 2255 Surveyor: AY

Time	**Map Ref**	**Species**	**Activity**
2122		45 pip	HnS
2127		45 pip	Commuting N to S above house
2218		Serotine	Faint call – HnS
2231		45 pip	Commuting N to S over site
2241		45 pip	HnS
2245		45 pip	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 6th July 2023

Weather Conditions: 0% cloud, no rain, light wind

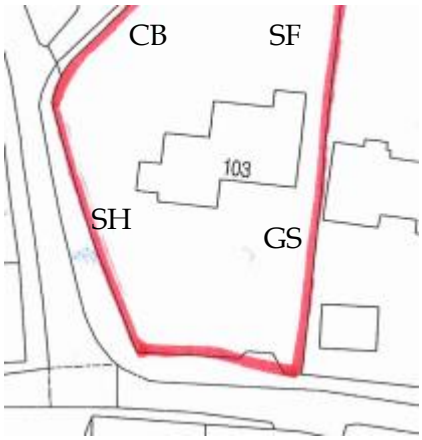
Max Temp: 17.8ºC Min Temp: 12.2ºC

Sunset Time: 2125 Survey Type: Emergence

Survey Starts: 2110 Survey Ends: 2255 Surveyor: SF

Time	**Map Ref**	**Species**	**Activity**
2157		Noctule	HnS
2218		55 pip	Foraging HnS
2237		Noctule	HnS
2241		45 pip	Foraging HnS
2245		45 pip	Foraging HnS

APPENDIX 3: EMERGENCE 20TH JULY 2023



Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 20th July 2023

Weather Conditions: 20% cloud, no rain, no wind

Max Temp: 19.6°C Min Temp: 12.7°C

Sunset Time: 2113 Survey Type: Emergence

Survey Starts: 2058 Survey Ends: 2243 Surveyor: GS

Time	Map Ref	Species	Activity
2202		55 pip	Brief call HnS
2206		55 pip	Brief call HnS
2212		Serotine	HnS
2217		Noctule	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 20th July 2023

Weather Conditions: 20% cloud, no rain, no wind

Max Temp: 19.6ºC Min Temp: 12.7ºC

Sunset Time: 2113 Survey Type: Emergence

Survey Starts: 2058 Survey Ends: 2243 Surveyor: SH

Time	**Map Ref**	**Species**	**Activity**
2147		55 pip	Came from direction of roof but no emergence seen
2200		55 pip	Commuting over garden S to N
2201		45 pip	Foraging over garden
2206		45 pip	Foraging over garden ongoing
2209		Serotine	HnS
2216		45 pip	HnS
2222		55 pip	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 20th July 2023

Weather Conditions: 20% cloud, no rain, no wind

Max Temp: 19.6ºC Min Temp: 12.7ºC

Sunset Time: 2113 Survey Type: Emergence

Survey Starts: 2058 Survey Ends: 2243 Surveyor: CB

Time	Map Ref	Species	Activity
2111		45 pip	Distant pass HnS
2147		55 pip	HnS to N
2200		55 pip	HnS to N
2201		45 pip	HnS to N
2204		55 pip	HnS to N
2209		Serotine	HnS
2215		Serotine	Distant call HnS
2216		45 pip	Foraging to N
2231		BLE	Single pass HnS
2239		55 pip	HnS
2240		Serotine	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 20th July 2023

Weather Conditions: 20% cloud, no rain, no wind

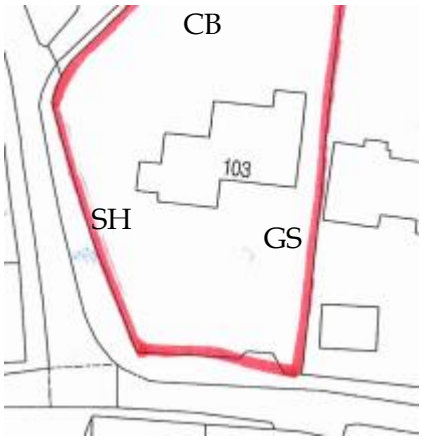
Max Temp: 19.6ºC Min Temp: 12.7ºC

Sunset Time: 2113 Survey Type: Emergence

Survey Starts: 2058 Survey Ends: 2243 Surveyor: SF

Time	**Map Ref**	**Species**	**Activity**
2108		55 pip	Flew S to N over house – likely emergence as not seen by GS
2111		55 pip	Second bat as at 2108
2204		55 pip	Heading S over house
2216		45 pip	Foraging over garden
2238		55 pip	Foraging over garden
2224		55 pip	HnS
2230		Serotine	HnS
2240		Noctule	HnS

APPENDIX 4: RE-ENTRY SURVEY 3RD AUGUST 2023



Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 3rd August 2023

Weather Conditions: 100% cloud, light rain from 0440-0500, light wind

Max Temp: 18.3°C Min Temp: 14.2°C

Sunrise Time: 0536 Survey Type: Re-entry

Survey Starts: 0406 Survey Ends: 0551 Surveyor: GS

Time	Map Ref	Species	Activity
0432		55 pip	Faint call HnS
0500		Noctule	HnS
0523		Noctule	HnS
0524		55 pip	Circling driveway then away to E
0525		45 pip	Flew towards CB over house
0525	1	55 pip	1 bat re-entered


1
103
GREENACRE
J182
GHW

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 3rd August 2023

Weather Conditions: 100% cloud, light rain from 0440-0500, light wind

Max Temp: 18.3ºC Min Temp: 14.2ºC

Sunrise Time: 0536 Survey Type: Re-entry

Survey Starts: 0406 Survey Ends: 0551 Surveyor: SH

Time	Map Ref	Species	Activity
0450		55 pip	HnS
0456		45 pip	Foraging over lane to W
0457		Noctule	HnS
0507		45 pip	Foraging over lane to W
0522		55 pip	HnS

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Survey Sheet – Bat Activity

Site Name: Greenacre, Crockerton Date: 3rd August 2023

Weather Conditions: 100% cloud, light rain from 0440-0500, light wind

Max Temp: 18.3ºC Min Temp: 14.2ºC

Sunrise Time: 0536 Survey Type: Re-entry

Survey Starts: 0406 Survey Ends: 0551 Surveyor: CB

Time	Map Ref	Species	Activity
0418		BLE	HnS
0426		BLE	HnS
0452		45 pip	HnS
0458		Serotine	HnS
0507		45 pip	HnS
0510		45 pip	Flew over house towards GS
0520		Noctule	HnS
0522		45 pip	Flew over house from GS
0548	1	45 pip	1 bat re-entered


1