

Ecological Impact Assessment at
Barngate Stables, Musley Farm,
Musley Lane, Overton
Wrexham LL13 0LB
Grid Ref. SJ 3782 4079
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1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at Barnyard Stables, Overton and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme entails the construction of a store and welfare building.

The land was examined to establish the presence of or evidence of use by protected species of animals. A visual inspection was carried out to assess the potential or actual use of the site by great crested newts (GCN), bats, badgers, dormice and birds.

Impacts during the development should be low with respect to birds provided that no bird nests are constructed or occupied while work is taking place. If birds are building nests or any are occupied at any stage of the development work in that area must stop until the young have left the nest. Hedgerows should not be removed between March and September to prevent harm to nesting birds. Impacts with respect to badgers, bats and dormice are also considered to be low.

Since there are three ponds which appear suitable for use by great crested newts within 250 m, and others within 500 m, reasonable avoidance measures should be taken to avoid harm to these animals as given on page 7.

Compensatory tree and/or shrub planting is necessary to provide a biodiversity net gain.

No rare or threatened species of plants or animals were found on site or near the site, nor any invasive non native species.

A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines

2. Introduction

Susan Worsfold BSc (Hons) ACIEEM is an experienced wildlife surveyor, licensed bat and great crested newt worker and voluntary bat roost visitor. Registration number CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and registration number CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (Natural England) and S089569-1 (Natural Resources Wales);

Great crested newt licence registration number 2016-19947-CLS-CLS (NE) and S089570-1 (NRW)

This report was commissioned by the owner, Shiela Griffiths.

The site, at Barngate Stables, Overton, comprises approximately 0.03 ha of pasture.

The proposed scheme entails the construction of a store and welfare building.

The purpose of the report is to identify and address any significant ecological effects which are likely to occur as a result of the proposed development. This is necessary to comply with local planning policy and government legislation and avoid any offence being committed. Also, to describe any compensation, mitigation and enhancement measures which should be taken.

3. Methodology

3.1. Scope of the Assessment

The report incorporates an ecological impact assessment, incorporating a search for use or potential use by any rare, threatened, endemic and non-native invasive species which might be associated with such a site in accordance with:

The Conservation of Habitats and Species Regulations 2017 and listed in:

Schedule 2. European protected species of animals

Schedule 5. European protected species of plants

The protection of Badgers Act 1992

Protected species which might be associated with such a site include bats, owls and other breeding birds. It might be used by badgers, dormice, otter, water vole, amphibians and reptiles, and might contain protected plant species.

3.2. Desk Study

Wrexham Planning Portals were consulted for a review of previous ecological surveys carried out in the area. Magic Maps was consulted for the presence of designated sites and protected habitats. A data search was commissioned from Cofnod to identify any nearby protected species (attached).

3.3. Field Survey

The site was examined to establish the presence of any protected species or habitats, and for evidence of use by protected species of animals. The site and surrounding habitat was examined for signs of use by badgers and dormice. Maps of the site and surrounding environment were examined to identify any nearby waterbodies suitable for use by great crested newts within an influencing distance of the site. The variety of plant species was mapped according to the convention of Phase 1 habitat surveys as described by the JNCC (2010). Photographs were taken of all areas and those of relevance are shown in the appendices. The visual assessment of the site was carried out in accordance with CIEEM guidelines (CIEEM 2017) on 15th August 2021 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.2 Habitats

Site: The site is 700 m from the village of Overton. The total area of the site to be affected is approximately 0.03 ha.

Trees and hedgerows: There are no trees to be affected. There is a good network of agricultural hedgerows surrounding the site, with several trees.

Adjacent land: The nearest woodland is 400 m south east. The river Dee is 1.4 km north west. There are nine ponds within 500 m, the nearest being 110 m from the proposed building.

4.3 Species and Species Groups

Plants: Species found on site:

Damson (<i>Prunus domestica</i>)	Creeping thistle (<i>Cirsium arvense</i>)	Hawthorn (<i>Crataegus monogyna</i>)
Perennial ryegrass (<i>Lolium perenne</i>)	Bramble (<i>Rubus fruticosus</i>)	Dock (<i>Rumex</i> sp.)
Common nettle (<i>Urtica dioica</i>)	Blackthorn (<i>Prunus spinosa</i>)	White clover (<i>Trifolium repens</i>)
Holly (<i>Ilex aquifolium</i>)		

No rare or threatened species of plants were found on site or near the site.

Plants

The hedgerow did not fulfil the criteria for an ‘important’ hedge according to the most recent guidance.

Amphibians and Reptiles

None seen during the initial survey. There is no shelter and limited foraging potential on the site, apart from the hedgerow. There are three ponds which appear suitable for use by great crested newts within 250 m of the site, and others within 500 m.

Birds

The hedgerow bordering the site offers food and shelter for birds and also nesting potential.

Bats

The site is suitable for use by foraging and commuting bats.

Badgers

There were no badger setts, tracks or latrines found on the site or within 30 m of the site.

Dormice

No evidence of use by dormice was found, nor was the site suitable for use by them.

No species of conservation value or Schedule 9 species were seen on site.

5. Description of the Development

The proposed scheme entails the construction of a store and welfare building.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact on any nearby designated sites due to its small size and low ecological impact.

Habitats:

No priority habitat is affected by the proposal. The loss of vegetation will have a low impact on some invertebrate, bird and small mammal species. Diversity of plant species was low. If birds should gain access to hedge or new building, and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Species:

Amphibians and Reptiles

Since there are three ponds which appear suitable for use by great crested newts within 250 m, and others within 500 m, reasonable avoidance measures should be taken to avoid harm to these animals as follows:

Vegetation removal should begin in the centre of the site and continue to the outer edges so that any animals present are able to move away.

Any trenches should be inspected carefully before infilling, and any animals carefully removed and removed from the area to a place of safety.

Building materials should be stored clear of the ground (say, on pallets) so as to avoid crushing any animals which might seek refuge under them, when the materials are lifted.

Any open pipework should be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.

If any GCN are found during the development a licensed GCN worker should be contacted for advice.

Birds

If birds should gain access to the new building, and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Bats

The site is suitable for use by foraging and commuting bats.

A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines:

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at:

<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Residual Effects

The loss of habitat will have a small effect on future foraging and commuting for some species, however the negative impact may be mitigated with compensatory planting of plant species with higher value and potential for use by wildlife.

7. Compensation

At least two wildlife friendly native tree/shrubs should be planted on site, e.g. bird cherry (*Prunus padus*), wild cherry (*Prunus avium*), crab apple (*Malus sylvestris*), rowan (*Sorbus aucuparia*), hazel (*Corylus avellana*), *Amelanchier laevis*, spindle (*Euonymus europaeus*), alder buckthorn (*Frangula alnus*), strawberry tree (*Arbutus unedo*) holly (*Ilex aquifolium*) or hawthorn (*Crataegus monogyna*). These would also be attractive and a fairly manageable size. Further planting is anticipated for the area to the north and east of the site, details to be decided.

8. Enhancement Recommendations

Bats: A bat box e.g. Schwegler 1FF to be fitted externally to the new building. Further information is given in the bat box information pack available at <http://www.bats.org.uk/index.php>. Bat boxes should be placed in a south east to south west facing position if possible.

Birds: One woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow to be incorporated into the new building.

House Sparrow Terrace - Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves of buildings or incorporated into walls. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm. Also suitable for tits, redstarts and spotted flycatchers. Place at least 2 m from the ground.

9. Ecological Constraints

None identified.

10. Monitoring

None considered necessary.

11. Conclusions

If the recommended mitigation, compensation and enhancement measures are taken the overall ecological impacts of the proposed development will be low due to its small scale and lack of evidence of any rare or threatened species or priority habitat.

12: Bibliography

Bat Conservation Trust available at: <http://www.bats.org.uk>

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at:
<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora available at: jncc.defra.gov.uk

Google Maps available at: <https://maps.google.com/maps>

Harris S, Cresswell P, Jefferies D (1989) *Surveying Badgers*. London: The Mammal Society

Hedgerows Regulations 1997 available at: <http://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*, ISBN 0 86139 636 7

Magic Maps available at: <http://magic.defra.gov.uk>

Mitchell-Jones, A. J. and McLeish, A. P. (2004) *Bat Worker's Manual*, Peterborough: Joint Nature Conservation Committee

Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*, Peterborough: English Nature

Natural Resources Wales available at: <https://naturalresources.wales/?lang=en>

The National Vegetation Classification available at: jncc.defra.gov.uk

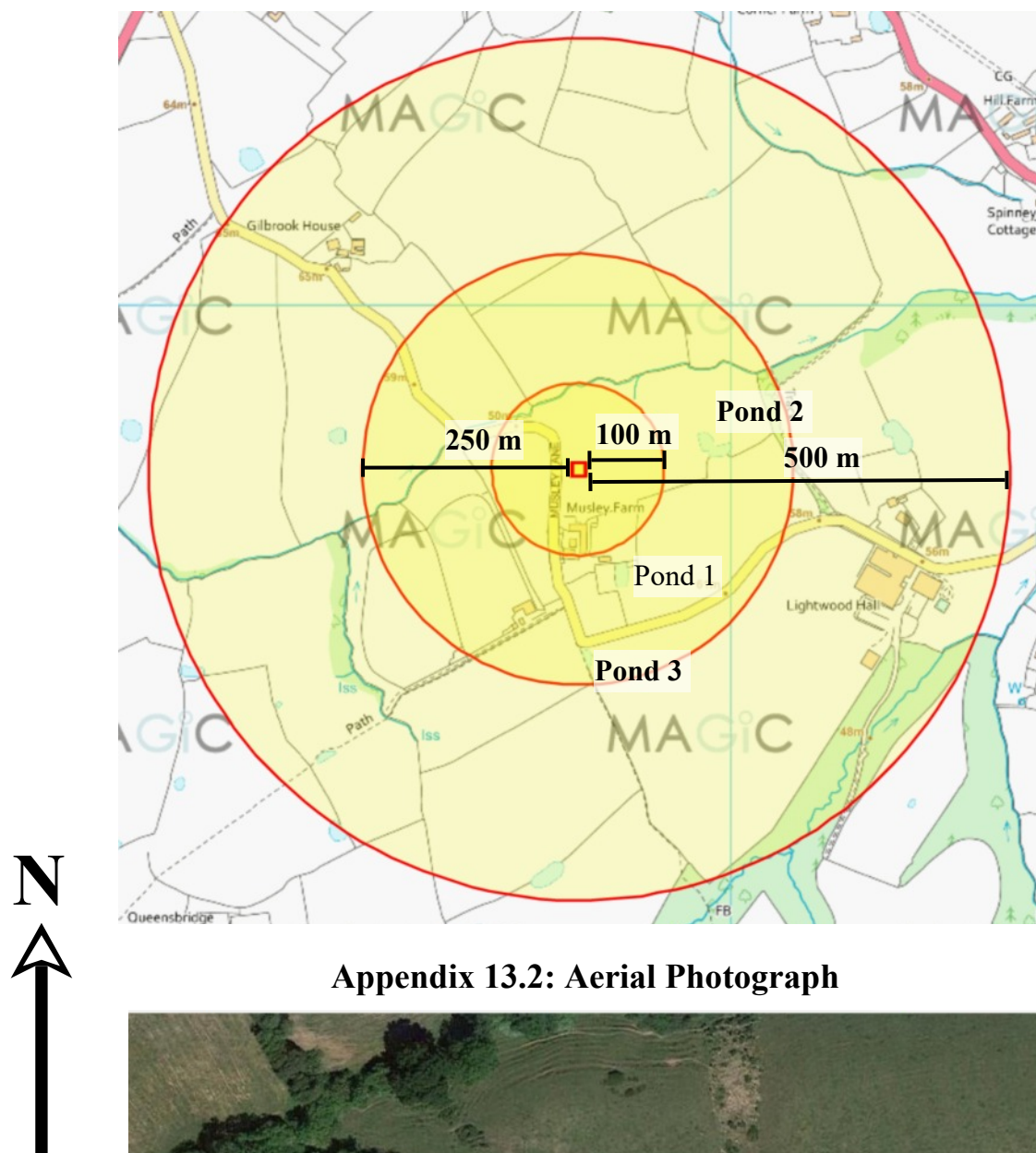
Rapid Risk Assessment Tool available at: <https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

UK BAP Priority Habitats available at: jncc.defra.gov.uk

Wildlife and Habitat Conservation available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

Wrexham Council Planning Portal available at:
<http://planning.wrexham.gov.uk/Planning/lg/GFPlanningSearch.page>

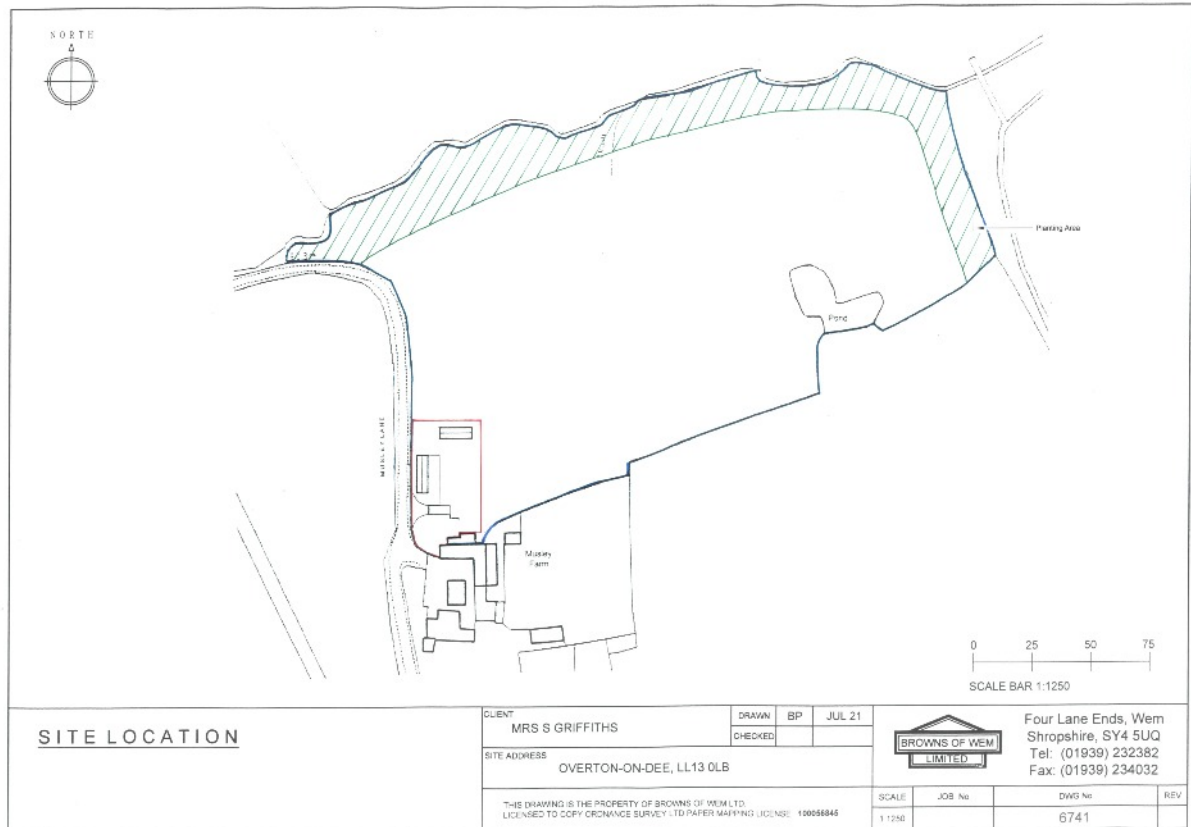
Appendix 13.1: Map Showing Zones of Influence and Designated Sites



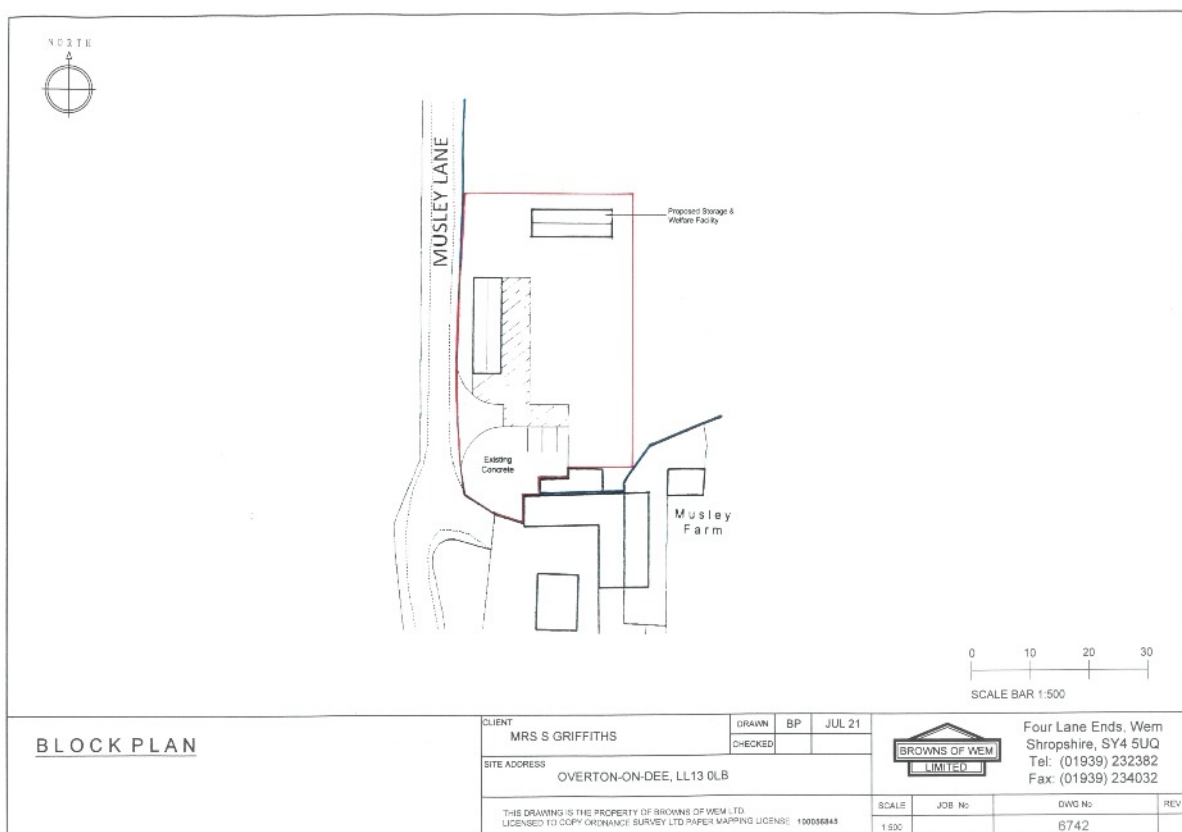
Appendix 13.2: Aerial Photograph



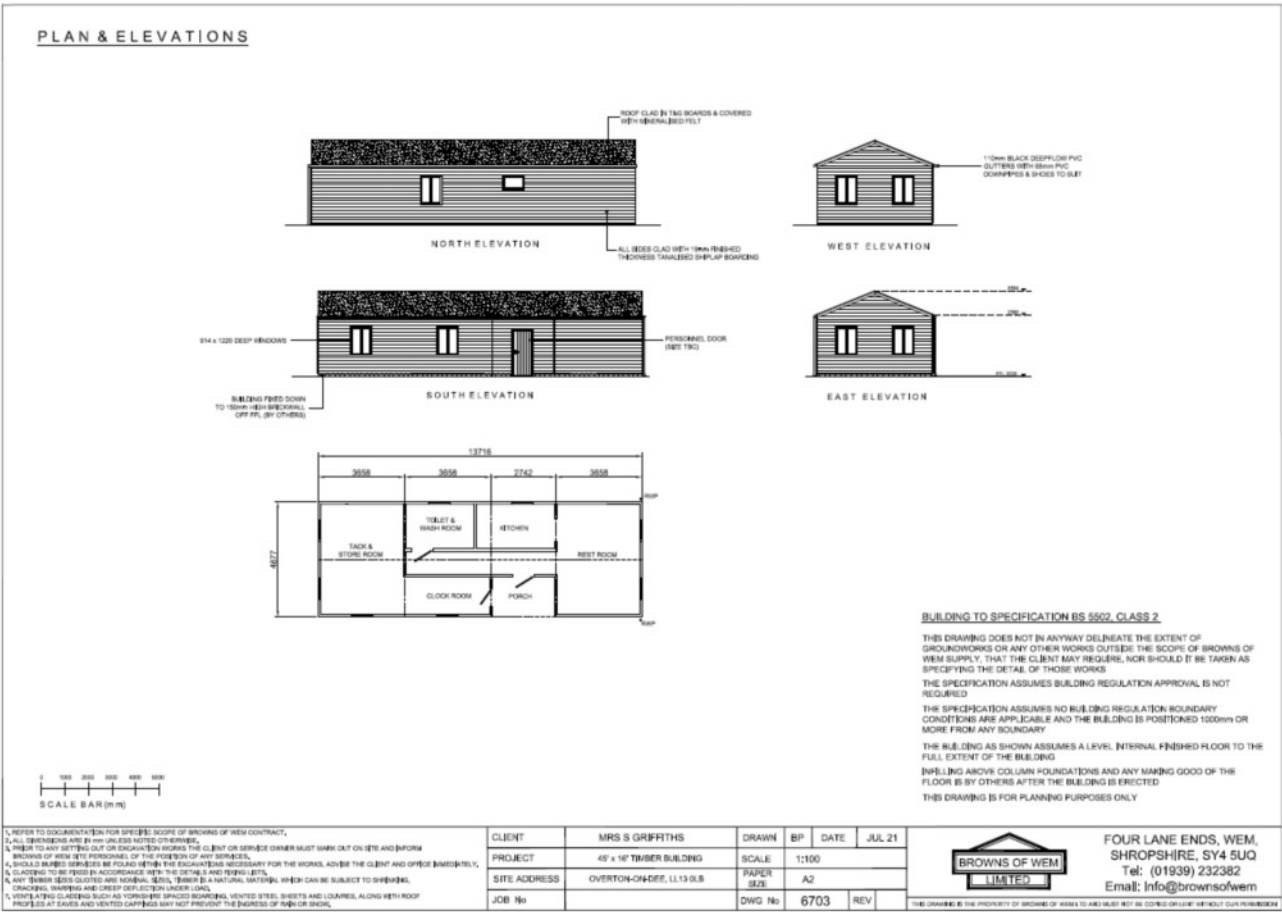
Appendix 13.3: Site and Location Plan



Appendix 13.4: Block Plan



Appendix 13.4: Floor Plan and Elevations



Appendix 13.5: Photographs



Appendix 13.6: Legislation Relating to Great Crested Newts

Wales is home to six amphibian species. They need fresh water in which to lay their eggs or spawn and enough suitable habitat nearby to spend the rest of their year. They have declined in recent decades as ponds have disappeared or become polluted or acidified. Pond restoration and creation (even in gardens) is a great help to amphibian conservation.

All amphibian species spend a large part of their year foraging on dry land, and they need sheltered places to hibernate. Hedgerows and other areas of semi-natural habitat are vital for their survival.

UK legislation:

The most common species are protected from sale under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are:

Common frog, *Rana temporaria*

Common toad, *Bufo bufo*

Palmate newt, *Triturus helveticus*

Smooth / common newt, *Triturus vulgaris*

The legislation protects them from being sold or offered for sale to protect them from exploitation in the pet trade or laboratory use.

European legislation:

Our rarest amphibians are protected under the Conservation of Habitats and Species Regulations 2017 (known as 'the Habitats Regulations'). The Habitats Regulations lists the following amphibian European Protected Species (EPS):

great crested (or warty) newt, *Triturus cristatus*

natterjack toad, *Bufo calamita*

Under the Habitats Regulations, it is an offence if you:

deliberately capture, injure or kill any wild animal of an EPS,

deliberately disturb wild animals of any such species,

deliberately take or destroy the eggs of such an animal, or

damage or destroy a breeding site or resting place of such an animal

Disturbance is defined as that which is likely to impair the ability to survive, breed, reproduce, or nurture young, or to hibernate or migrate.

There are other offences relating to possession, transport and sale. See 'Possession and Sale of Protected Species' for more information.

The great crested newt and natterjack toad also receive protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) from the following:

disturbing whilst occupying a place of shelter or protection,

obstructing access to a place of shelter or protection,

sale / offering for sale

Licensing for activities involving European Protected Species:

In certain circumstances Natural Resources Wales may issue licences for activities involving European protected species, that would otherwise be offences.

Appendix 13.7: Legislation Relating to Birds

All wild bird species, their eggs and nests are protected by law. You must always try to avoid harming birds or to use measures which do not kill or injure them before considering taking harmful action.

In most cases you should be able to avoid harming wild birds by:

- timing your work to avoid the breeding season
- using a range of methods that deter but don't harm them

In exceptional cases the law allows certain exemptions to permit legal activities (such as a development with planning permission) and where avoiding harm isn't possible.

What you must not do:

You're breaking the law if you:

- intentionally kill, injure or take wild birds
- intentionally take, damage or destroy a wild bird's nest while it's being used or built
- intentionally take or destroy a wild bird's egg
- possess, control or transport live or dead wild birds, or parts of them, or their eggs
- sell wild birds or put them on display for sale
- use prohibited methods to kill or take wild birds

Some birds, known as 'schedule 1 birds', eg barn owls, have extra legal protection. For these bird species it's also an offence to do the following, either intentionally or by not taking enough care:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young
- disturb their dependent young

You could get an unlimited fine and up to 6 months in prison for each offence if you're found guilty.

Activities that can harm birds

These activities can affect wild birds, particularly during breeding season:

- trimming or cutting trees, bushes, hedges and rough vegetation
- renovating, converting or demolishing a building
- creating disturbance, eg noise, lighting and vibration
- taking actions to prevent problems, eg shooting birds or removing nests

When you can get a licence

There are no licensing purposes to permit development or construction but there are ways you can continue development or construction when birds are present. These activities should rely upon the legal exemptions. You must make sure that you can comply fully with the terms of the exemption so that you don't break the law.

You can apply for a licence from Natural England or Natural Resources Wales in certain circumstances and for certain problems.

Licences are available for disturbing or harming birds for a limited number of reasons that include:

- preserve public health and safety
- preserve air safety
- do work for science, education or research
- prevent damage to crops or animal feed
- conserve plants and animals (including other wild birds)
- prevent damage to fisheries
- take part in photography, falconry, keeping or breeding birds