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Preliminary Ecological Appraisal Including a Protected Species Assessment at: Dillacks Farm, Colchester Road, Assington. CO10 5LT.

On Behalf Of:

Mr & Mrs Day

August 2023

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Figures & Photographs

0 SUMMARY

0.1 Skilled Ecology Consultancy Ltd. was commissioned by Mr & Mrs Day to undertake a Preliminary Ecological Appraisal including a Protected Species Assessment at Dillacks Farm, Colchester Road, Assington. CO10 5LT. The report is required to accompany a planning application for conversion of an existing cartlodge and outbuilding to an annex, as well as a ground mounted solar array.

0.2 The survey was conducted on 19th July 2023 by experienced ecologist Roger Spring BSc MCIEEM (licensed to survey for great crested newts *Triturus cristatus* and licenced to survey for bats - level 2). The survey consisted of an inspection for preferred habitat types and signs and evidence of protected and priority species, such as for bats, great crested newts, reptiles, badgers *Meles meles* and nesting birds following Natural England (English Nature) Guidelines. A local record search was undertaken.

0.3 The site and proposed construction zone includes: a single-storey, period, timber frame and brick outbuilding and attached cartlodge with a pitched, tiled roof. The structure is linked to a covered area attached to the main house. Land proposed for impact was a very small area of short improved grass.

0.4 The building is set in a courtyard with barns to the west and south and main house to the north.

0.5 Surrounding habitats included the A134 to the north, mature gardens to the east and south with a nearby pond. Beyond the immediate surroundings habitats were dominated by arable land.

0.6 No signs or evidence of bats or bat activity were found. However, a small number of gaps were present around roof tiles theoretically suitable for roosting bats. In accordance with national bat survey guidelines potential for roosting was considered low.

0.7 Therefore, to determine the presence or absence of roosting bats one dusk emergence bat survey should be undertaken by two surveyors, as detailed later in the report.

0.8 Recommendations also include precautionary measures to minimise any residual risk of impact to amphibians, hedgehogs and nesting birds.

0.9 Biodiversity enhancements are also included in the report in accordance with national planning policy.

1 INTRODUCTION

1.1 Background

1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Mr & Mrs Day to undertake a Preliminary Ecological Appraisal including a Protected Species Assessment at Dillacks Farm, Colchester Road, Assington. CO10 5LT. The report is required to accompany a planning application for conversion of an existing cartlodge and outbuilding to an annex, as well as a ground mounted solar array.

1.1.2 Wildlife such as nesting birds, bats, reptiles and great crested newts Triturus cristatus are protected by law. Protected and priority species and habitats, are also a material consideration for individual planning decisions under the National Planning Policy Framework, 2021 (NPPF) (MHCLG, 2021).

1.1.3 This study and report complies with the Chartered Institute for Ecology and Environmental Management (CIEEM) 2017 Guidelines for Preliminary Ecological Appraisal.

1.1.4 CIEEM guidelines indicate that ecological surveying typically remains valid for between 12 – 18 months.

2 METHODOLOGY

2.1 Desk Study

2.1.1 Skilled Ecology Consultancy Ltd. have undertaken many local surveys in Assington and surrounding villages. Data from past bat surveys are provided later in the report. It was considered unnecessary to order further bat records from Suffolk Biodiversity Information Service to support the assessment.

2.1.2 A search of the Multi-agency Geographical Information for the Countryside (MAGIC) was also conducted, to check for statutory nature conservation sites.

2.1.3 The record search results were then combined with the findings of the site survey to assess the risk of bat issues, relevant to planning, occurring on the site.

2.2 Study Limitations

2.2.1 The site and surrounds were assessed based on their condition at the time of the survey visit.

2.2.2 The survey was conducted in mid-summer, early & later season flowering plants might not be evident at this point.

2.3 Initial Site Survey

Habitats and Surroundings

2.3.1 The site was visited on the 19th July 2023 by experienced ecologist Tommy Root BSc (Hons) ACIEEM to survey for ecology issues. This included the following:

- Noting the suitability of habitats present on the site, regarding protected, priority and rare species; including plants, amphibians, reptiles, mammals, nesting birds, invertebrates and protected, priority or red-listed Birds of Conservation Concern (BoCC);
- Assessing the habitats surrounding the site and in the local area;
- Direct survey for evidence of protected species as far as possible, e.g. for bats, reptiles, great crested newts, badgers *Meles meles,* and nesting birds;
- Checking for invasive species such as Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*

Bat Inspection

2.3.2 The assessment for bats was conducted by experienced ecologists, licensed by Natural England to disturb and take bats for science and education. Buildings were inspected externally for bat activity, suitability and potential for roosting following English Nature Bat Mitigation Guidelines (English Nature, 2004) and Bat Conservation Trust Best Practice Guidelines, therefore considerations were:

- the availability of access to roosts for bats;
- the presence and suitability of cracks, crevices, gaps, fissures, ivy growth and other places as roosts;
- signs of bat activity or presence, such as; the bats themselves, droppings, grease marks, scratch marks, urine spatter and prey remains.

2.3.3 Equipment available for use during the survey included a ladder, high powered torch, digital camera and binoculars.

2.3.4 The availability of access to roosts was assessed based upon the presence of holes large enough to allow entry to bats and lack of cobwebs and dirt.

2.3.5 The inside and outside of buildings were inspected for gaps, cavities, access points and crevices, and any signs of bats (droppings, staining, urine spatter), in accordance with Natural England (English Nature) guidelines (English Nature, 2004).

Reptiles & Amphibians

2.3.6 The site was inspected for potentially suitable terrestrial habitats for foraging, sheltering or dispersing amphibians and foraging, sheltering, breeding and basking habitat for reptiles. High quality terrestrial refuges searched for, included:

- Log piles & rockeries,
- Thick leaf litter,
- Compost & manure heaps,
- Mammal burrows,
- Deep ground cracks;
- Refuse suitable for shelter;
- Tussock grassland;
- Hedgerows and any other potential habitats.

2.3.7 The closest pond to the site was assessed for suitability for great crested newts by undertaking a Habitat suitability Index assessment as developed by Oldham *et al*. 2000.

Badgers & Other Mammals

2.3.8 Signs and evidence of badgers, and other protected, priority and rare mammal activity searched for included the following:

- Setts, holes and burrows;
- Foraging holes and other diggings;
- Latrines, droppings, spraints and scats;
- Mammal hairs;
- Paw prints and other tracks;
- Feeding remains;
- Scratch marks, bedding material and other signs.

3 RESULTS AND RISK

3.1 Site Description & Location

3.1.1 The site and proposed construction zone includes: a single-storey, period, timber frame and brick outbuilding and attached cartlodge with a pitched, tiled roof. The structure is linked to a covered area attached to the main house. Land proposed for impact was a very small area of short improved grass.

3.1.2 The building is set in a courtyard with barns to the west and south and main house to the north.

3.1.3 Surrounding habitats included the A134 to the north, mature gardens to the east and south with a nearby pond. Beyond the immediate surroundings habitats were dominated by arable land.

3.1.4 Other the pond adjacent to the site, only two other ponds were identified within 250m of the site including a pond 200m south west and a second pond 220m north east. Both ponds were separated from the site by major amphibian dispersal obstacles including a large arable field and the A134 (Ordnance Survey Map, 2023).

3.2 Nature Conservation Sites

3.2.1 The nearest designated wildlife site is Arger Fen Site of Special Scientific Interest (SSSI) located approximately 1.8km south of the site. The SSSI is designated for its woodland, acid grassland and wet meadow habitats (MAGIC, 2023).

3.3 Data Search

3.3.1 The following information is a list of local bat records collated through Skilled Ecology Consultancy Ltd. database.

Table 1 - Summary of local bat records.

Species	Location	Year
Brown long eared	800m west	2019
Common pipistrelle	800m west	2019
Soprano pipistrelle	800m west	2019
Noctule	800m west	2019

3.4 Protected, Priority & Rare Species

Vegetation & Habitats

3.4.1 Habitats mostly included a building, though a small area of short improved grassland may be disturbed on the eastern side of the former dairy building and in the location for the new solar array. Excavation for utilities are also expected.

3.4.2 The grassland supported common and widespread species. No Schedule 9 invasive plants or protected or priority plant species were observed within the main construction zone. No UK priority habitats are proposed for impact.

Bats

3.4.3 No signs or evidence of bats or bat activity were found. However, a small number of gaps were present around roof tiles theoretically suitable for roosting bats. In accordance with national bat survey guidelines potential for roosting was considered low.

3.4.4 The gardens to the east including a pond will be visited by foraging bats in summer months.

Other Protected & UK Priority Mammals

3.4.5 The construction zone is small in area and low in suitability for foraging by badgers *Meles meles,* if present locally.

3.4.6 The construction zone was unsuitable for aquatic mammals such as otter *Lutra lutra* or water vole *Arvicola amphibius*.

3.4.7 The site was considered low in suitability for hedgehogs *Erinaceus europaeus*, though it could not be discounted that the occasional hedgehog may cross the site.

3.4.8 No signs or evidence of ground dwelling protected, priority or rare mammals were observed.

Birds

3.4.9 The following bird species were observed or heard on or close to the site during the survey: wood pigeon *Columba palumbus*, blackbird *Turdus merula*, robin *Erithacus rubecula*, goldfinch *Carduelis carduelis*, and dunnock *Prunella modularis*.

3.4.10 No signs or evidence of protected birds such as barn owls were observed. No red-listed Birds of Conservation Concern BoCC species were recorded, though low numbers are likely to visit the garden for foraging on occasions. Dunnock and wood pigeon are amber-listed BoCC species. All other bird species recorded were common, widespread green-listed BoCC species.

3.4.11 An old wren nest was observed in the cartlodge section of the former dairy and this area was theoretically suitable for nesting by low numbers of common birds. No active bird nests were observed.

3.4.12 The BoCC ratings are summarised as follows:

- Red-listed - highest conservation concern;
- Amber-listed - moderate conservation concern;
- Green-listed - least conservation concern.

Great Crested Newts & Other Amphibians

3.4.13 The proposed construction zone was mostly a building and a very small area of short improved grass all considered very low in suitability or potential as terrestrial habitat for great crested newts or other amphibians.

3.4.14 One pond is located adjacent to the site. The pond scored average in suitability for great crested newts. See Table 2 below.

3.4.15 Amphibians were not observed during the survey visit.

Table 2: Habitat Suitability Index score for Pond 1 close to the site at Dillacks Farm.

Pond	**Pond 1**
SI1 - Location	1
SI2 - Pond area	1
SI3 - Pond drying	0.5
SI4 - Water quality	0.67
SI4 - Shade	1
SI6 - Fowl	0.67
SI7 - Fish	1
SI8 - Ponds	0.55
SI9 - Terr'l habitat	0.33
SI10 - Macrophytes	0.6
HSI	**0.69**

HSI Pond suitability
<0.5 = poor
0.5 – 0.59 = below average
0.6 – 0.69 = average
0.7 – 0.79 = good
> 0.8 = excellent

Reptiles

3.4.16 The site was considered very low in suitability or potential for reptiles with negligible safe basking, foraging or breeding habitat present.

3.4.17 Reptiles were not observed during the survey visit which was conducted during optimal conditions for active reptiles.

Invertebrates

3.4.18 The construction zone was low in diversity of habitats, size and diversity of flora necessary to support a significant assemblage of invertebrates of conservation concern. It is possible that the occasional priority species may visit the site, though significant use by such species was considered highly unlikely.

3.4.19 No protected or priority invertebrates were observed during the survey visit.

3.4.20 No areas of deadwood or rotting tree stumps were present for breeding stag beetles.

Other Protected, Priority or Rare Species

3.4.21 No signs or evidence of any other protected or priority species were observed on the site. The risk of presence of such was considered negligible.

4 DISCUSSION OF RISK AND LEGISLATION

4.1 Protected Species

Bats

4.1.1 Bats are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000 and under the Conservation of Habitats and Species Regulations 2017. Some bats are also UK priority species. A summary of the offences likely to be relevant to development are:

- Intentionally or deliberately kill, injure or take a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection, whether bats are present or not;
- Damage or destroy a breeding site or resting place of any bat;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
- Deliberately disturb a bat anywhere.

4.1.2 No signs or evidence of bats or bat activity were found. However, a small number of gaps were present around roof tiles theoretically suitable for roosting bats. In accordance with national bat survey guidelines potential for roosting was considered low.

4.1.3 Therefore, to determine the presence or absence of roosting bats one dusk emergence bat survey should be undertaken by two surveyors, as detailed later in the report.

Birds

4.1.4 Wild birds are protected under the Wildlife and Countryside Act 1981 and, with certain exceptions (e.g. pest species) in certain situations, it is an offence to intentionally:

- Kill or injure any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built;
- Take or destroy the egg of any wild bird.

4.1.5 Some bird species (such as barn owls) are also specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 and others are UK priority species.

4.1.6 Protected birds and UK priority bird species have been recorded locally (CPERC, 2020).

4.1.7 The proposed construction zone was considered unlikely to support protected, priority or rare birds, though may on occasions support low numbers of common nesting birds. One old wren nest was observed in the cartlodge area.

4.1.8 Therefore, further bird surveys or mitigation were considered unnecessary.

4.1.9 However, to minimise any residual risk of impact to birds, precautionary measures, detailed later in the report, should be followed.

Other Protected, Priority & Rare Mammals

4.1.10 The site was considered low in suitability for any other protected, priority or rare mammals. No signs or evidence of such were observed on the site or adjacent to the site. It could not be discounted that the very occasional hedgehog might visit the site, though significant use by many hedgehogs was considered unlikely.

4.1.11 Further surveys for any other protected, priority or rare mammals was considered unnecessary. However, to minimise any residual risk of impact to hedgehogs, precautionary measures, detailed later in the report, should be followed.

Great Crested Newts & Other Amphibians

4.1.12 Great crested newts are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000, and the Conservation of Habitats and Species Regulations 2017. Great crested newts are also UK priority species. A summary of the offences likely to be relevant to development are:

- Intentionally or deliberately capture or kill;
- Intentionally injure;
- Deliberately disturb, or intentionally or recklessly disturb in a place of shelter or protection;
- Damage or destroy a breeding site or resting place;
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.

4.1.13 Habitats present were small in area and very low in suitability for great crested newts or other amphibians. One pond is present adjacent to the site, though even if this supports great crested newts the risk of significant impact or harm was considered very low.

4.1.14 This assessment was further confirmed when consulting the Natural England Rapid Risk Assessment Tool, detailed below.

4.1.15 Therefore, further amphibian surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact, precautionary measures, detailed later in the report, should be followed.

Table 3: Natural England Rapid Risk assessment Tool.

Component	**Likely effect** **(select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)**	**Notional offence probability score**
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.05
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.05
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

Plants

4.1.16 No rare, protected, priority or Schedule 9 invasive plant species were present. No UK priority habitats are proposed for impact.

4.1.17 Further botanical surveys or mitigation were considered unnecessary.

Reptiles

4.1.18 Widespread reptile species including, grass snake, adder, slow worm and common lizard, are protected from intentional killing and injuring under the Wildlife and Countryside Act 1981. They are also UK priority species.

3.4.22 The site was considered negligible in suitability or potential for reptiles. No reptiles were observed during the survey visit.

4.1.19 Therefore, the risk of presence and potential for impact was considered negligible. Further reptile surveys or mitigation were considered unnecessary.

Invertebrates

4.1.20 Habitats proposed for impact were unlikely to support an assemblage of rare invertebrates of conservation concern. The risk of presence or significant impact to such species was very low.

4.1.21 Further invertebrate surveys or mitigation were considered unnecessary.

Other Protected & Priority species

4.1.22 No signs or evidence of other protected, priority or rare species were observed on the site and it was considered that there was a low risk of such species occurring on the site or being impacted by the proposed development.

4.2 Other Issues

Sensitive Habitats

4.2.1 The site was a significant distance from any designated nature conservation sites. The risk of significant direct or indirect impact to such sites was considered very low.

4.2.2 Further surveys or mitigation for protection of designated nature conservation sites were considered unnecessary.

5 RECOMMENDATIONS

5.1 Further Surveys

Bats

5.1.1 In accordance with national guidelines one dusk emergence bat survey should be undertaken by two ecologists during fine and dry weather between May and September following Bat Conservation Guidelines.

5.2 Precautionary Measures and Inclusions

Foraging Bats

5.2.1 To minimise any residual risk of impact to bats, the following precautionary measure should be undertaken:

- Any new proposed external lighting should be minimised. Where external lighting is required it should be warm white LED lamps (<3000k) with glass glazing, rather than plastic, as these produce the least amount of UV light possible, minimising the attraction effects on insects and minimising disturbance to local bats;
- Any new external lighting proposed for the development should be aimed carefully, to minimise illumination of boundary habitats and avoid light spillage into the sky, or horizontally out from any buildings, by using hoods or directional lighting;
- External security lighting should be set on short timers and be sensitive to large moving objects only, to prevent any passing bats switching them on.

Birds

5.1.2 Commencement of construction should be outside of the main bird season (March to end of August). If this is not possible or impractical then a nesting bird survey should be undertaken before felling.

5.1.3 If an active bird nest was found, it would be necessary to protect the nest from harm or disturbance until the bird had finished nesting.

Amphibians & Hedgehogs

5.1.4 The risk of impact to hedgehogs and amphibians was considered very low. To minimise any residual risk of impact or harm, the following precautionary measures should be undertaken:

- Ground vegetation should be maintained short by regular cutting to prevent habitats improving for wildlife before any construction or demolition works;

- During development, waste material should be removed off site immediately and construction materials should be stored on hardstanding or off the ground on pallets, to prevent wildlife from sheltering in the materials and being harmed by movement of the materials;

- The site should be well drained and ground vegetation maintained short throughout the development, to prevent attracting wildlife into harm's way;

- Any excavations for the development should be covered at night or have a roughly sawn plank placed in them to facilitate escape for any wildlife which may fall in;

- No construction/demolition works at night when amphibians and hedgehogs are mostly active;

- In the unlikely event that a hedgehog or amphibian is observed on the site during development, activities in that area should cease and the animal should be allowed to disperse of its own accord. If rescuing is required and ecologist should be called for advice.

5.3 Enhancements

5.3.1 By following the below biodiversity enhancements, the development will improve the site for local wildlife and provide a net-gain in accordance with national planning policy (NPPF, 2021).

5.3.2 The following bat and bird boxes will be installed on the site as biodiversity enhancement. The boxes will be installed onto the walls of newly converted buildings:

- 1 x Beaumaris bat box.

- 1 x Schwegler kestrel box.

5.3.3 The bird and bat boxes will be installed high (just below the roof) on the new building. The bird box will be installed facing a northerly direction or out of direct sunlight. The bat boxes will be facing a southerly direction.

5.3.4 Any new or restored grass areas can be created using a wildflower meadow mixture such as EM1 from Emorsgate Seeds;

5.3.5 Any other new soft landscaping could include native and or wildlife attracting species only.

6 CONCLUSION

6.1 The site was generally considered low in ecological value with common and widespread habitats present. The risk of presence and significant impact to protected, priority or rare species or notable habitats was low.

6.2 One further dusk emergence bat survey should be undertaken to determine presence or absence of roosting bats.

6.3 To minimise any residual risk of impact, recommendations for birds, amphibians, hedgehogs and foraging bats are also included in the report and should be followed.

6.4 With the recommendations followed as described in the report, the proposed development could proceed with a minimal risk of impact to protected, priority or rare species or habitats.

6.5 Furthermore, by following the biodiversity enhancements, the development would be enhanced even further for the benefit of local wildlife in accordance with national planning policy.

7 REFERENCES

Bat Conservation Trust (2016) *Bat Surveys- Good Practise Guidelines, 3rd Edition*. Bat Conservation Trust, London.

Department for Communities and Local Government (2021). *National Planning Policy Framework, 2021.* Bressenden Place, London.

English Nature (2004). *Bat Mitigation Guidelines Version 2004*. English Nature, Peterborough.

Natural England (2008). *Template for Method Statement to support application for licence under Regulation 44(2) (e) in respect of Great Crested Newts Triturus cristatus*. Form wmla14-2_tcm6-4103. Natural England, Peterborough.

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). *Evaluating the Suitability of Habitat for the Great Crested Newt* (*Triturus cristatus*). Herpetological Journal Vol. 10 pp. 143-155.

Office of the Deputy Prime Minister (2005). *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Office of the Deputy Prime Minister, London.

Internet reference: *www.gridreferencefinder.com* (accessed in 2023). *www.magic.gov.uk* (accessed in 2023).

8 APPENDICES

8.1 Appendix 1: Figures

Figure 1: Habitat map- not all area proposed for development, see development plans below.

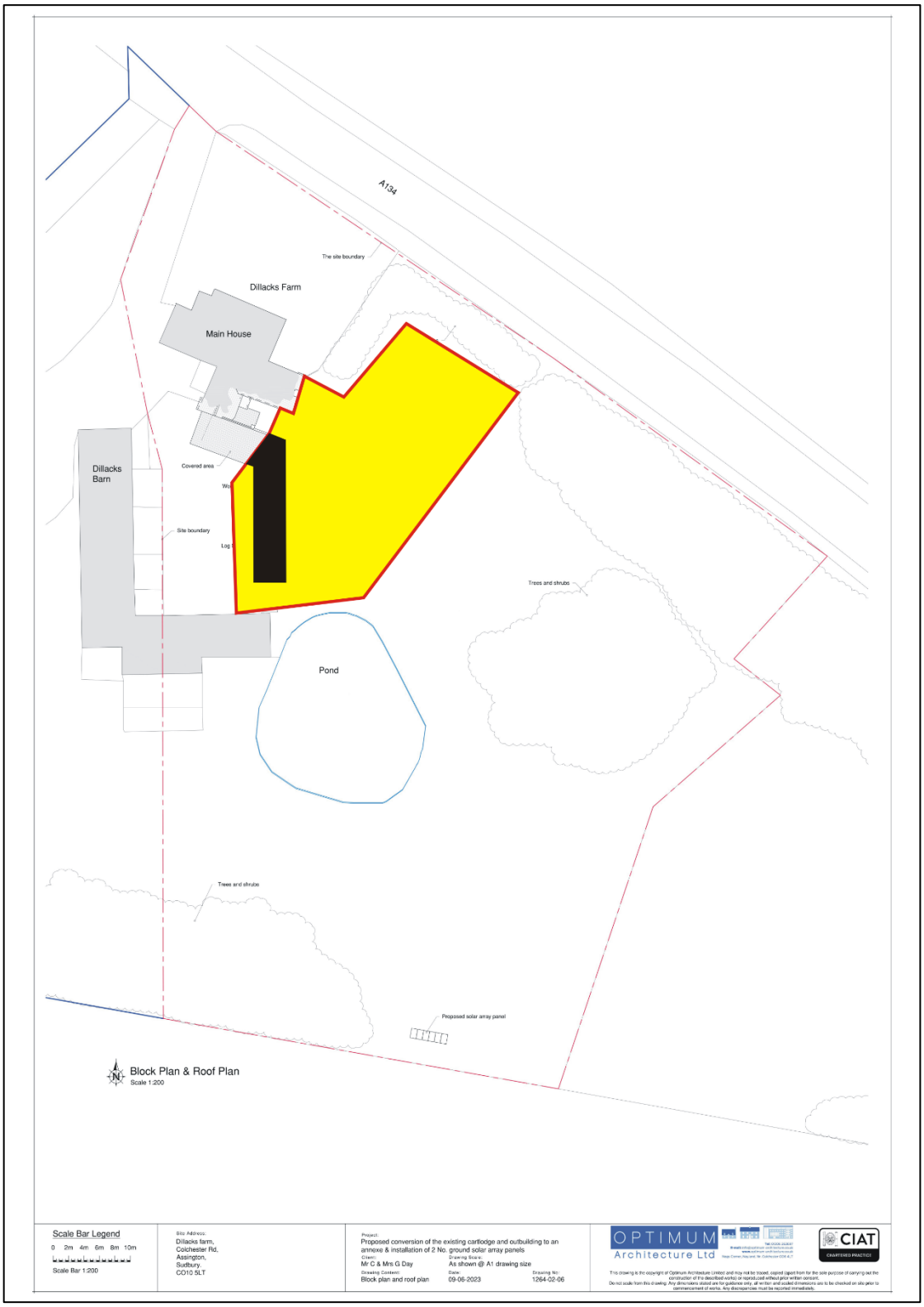


Figure 2: Proposed development

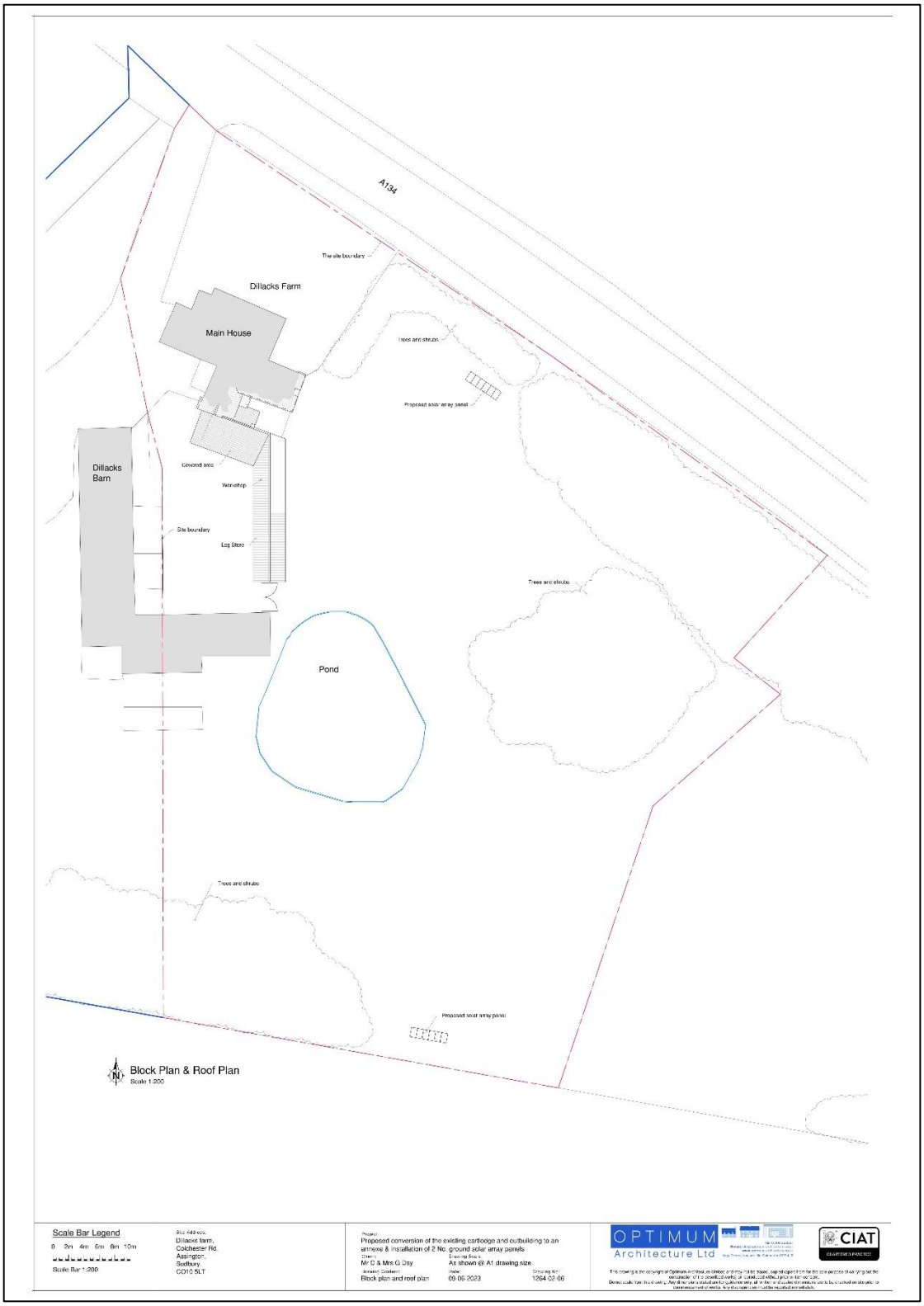
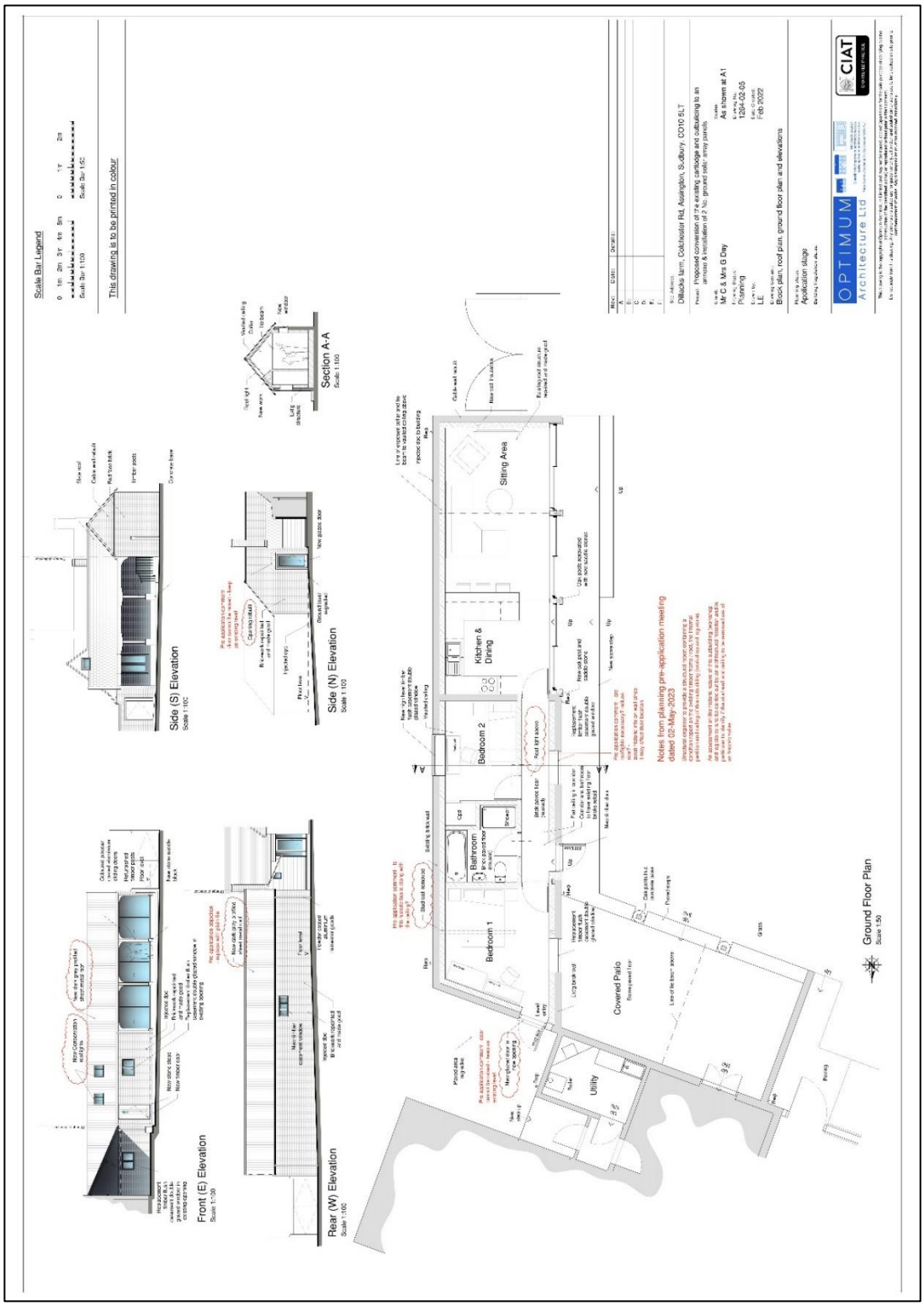


Figure 3: Proposed development



8.2 Appendix 2: Photographs

Photograph 1: Western elevation at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 2: Northern and eastern elevations at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 3: Inside the cartlodge at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 4: Inside the workshop area at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 5: Area connecting the Former Dair building to a covered area in the north west corner at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 6: Southern and eastern elevations at Dillacks Farm

Photograph by Roger Spring 2023

Photograph 7: Pond adjacent to the site at Dillacks Farm

Photograph by Roger Spring 2023