Preliminary Ecological Appraisal Report

Land at Gryphon Lodge Farm, Minety, Wiltshire, SN6 6RQ

Client	Mr Bryant
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1	08/11/2023	Issued to the client.
2	02/01/2024	Updated to take revised proposed plans into account.

Disclaimer

This document has been prepared solely for use by the client. Smart Ecology accepts no responsibility or liability for any use of this document by third parties or for purposes for which it was not originally commissioned.

The summary of wildlife legislation provided is for general guidance only and does not in any way provide legal opinion or a definitive statement of the law. For detailed information, the legislation itself should be reviewed and a legal professional consulted.

Smart Ecology cannot be held liable for any information provided by third parties which is referenced within this document. The evidence in this document is based upon the field survey(s) detailed. Due to the changing nature of ecology the list of species present cannot be considered comprehensive and Smart Ecology cannot guarantee that other protected/notable species and habitats are not present.

The ecology of a site is constantly changing and therefore the information provided in this document is only relevant at the time of survey. **If it has been over 12 months since this survey was undertaken advice should be sought on whether an updated survey is necessary.**

The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Non-Technical Summary

Purpose of Report	Smart Ecology was commissioned by Mr Bryant to undertake a Preliminary Ecological Appraisal of land at Gryphon Lodge Farm, Minety, Wiltshire, SN6 6RQ. The purpose of the appraisal was to inform a planning application for the formation of a fishing lake, the erection of one lodge for use by anglers, and associated landscaping within a grassland field.
Methodology	A desk study, UK Habitat Classification survey, and an assessment for legally protected, notable and invasive non-native species were undertaken.

Ecological Feature	**Potential Impacts without Mitigation** (refer to Section 5)	**Surveys/Mitigation** (refer to Sections 6.1 & 6.2)
Statutory designated sites	New tourist accommodation could potentially result in increased impacts on North Meadow SAC due to recreational use. The site is located in an impact risk zone where Natural England has identified that the discharge of water or liquid waste of more than 20m³/day could potentially result in pollution of a SSSI.	Consult the Local Planning Authority to determine whether the proposed angler accommodation would require a financial contribution to SAMM/SANG. If the proposed development would result in water or liquid waste of more than 20m³/day being released to the ground or to surface water then the Local Planning Authority should consult with Natural England with respect to potential impacts on the SSSI.
Lowland mixed deciduous woodland	Damage to adjacent woodland during works.	Protect woodland during works, where necessary.
Hedgerows	Damage to hedgerows and trees within hedgerows during works.	Protect hedgerows and trees within hedgerows during works, where necessary.
Badgers & other mammals	Injury/death if badgers and other mammals become trapped in any excavations or open pipework during works.	Cover excavations or provide a ramp overnight and cap any open pipework overnight.
Amphibians	Injury/death during site clearance and construction, including of great crested newts. Potential for disturbance of great crested newts.	**Great crested newt HSI and presence/ likely absence surveys (March to mid-June) or eDNA water sampling (mid-April to June) of waterbodies within 500 m of the site, or the district level licensing scheme must be joined, which would avoid the need for further surveys.** Required mitigation for amphibians must be determined once surveys have been carried out or after the district level licensing scheme has been joined.

Ecological Feature	Potential Impacts without Mitigation (refer to Section 5)	Surveys/Mitigation (refer to Sections 6.1 & 6.2)
Reptiles	Injury/death during site clearance and construction.	Mitigation for reptiles must be determined once the further required surveys for great crested newts have been carried out or after the great crested newt district level licensing scheme has been joined.

Conclusions	It is recommended that the Local Planning Authority is consulted to determine whether the proposed accommodation would require a financial contribution to SAMM/SANG. If the proposed development would result in water or liquid waste of more than 20m³/day being released to the ground or to surface water, such as a beck or stream then the Local Planning Authority should consult with Natural England. Surveys must either be carried out of ponds within 500 m of the site with respect to great crested newts, or the district level licensing scheme must be joined. No significant impacts on other protected or notable species are considered likely if the mitigation measures provided in this report are implemented.

Contents

1 Introduction 1
1.1 Background 1
1.2 Site Context 1
1.3 Aims 1
2 Legislation and Planning Policy 2
2.1 Legislation 2
2.2 Planning Policy 5
3 Methodology 6
3.1 Desk Study 6
3.2 Field Survey 6
3.3 Evaluation of Ecological Features 10
3.4 Limitations 11
4 Baseline Ecological Conditions 12
4.1 Desk Study 12
4.2 Field Survey – Habitats 14
4.3 Field Survey – Species 17
5 Ecological Constraints 22
5.1 Development Proposals 22
5.2 Great Crested Newt Rapid Risk Assessment 22
5.3 Evaluation of Potential Impacts 22
6 Surveys, Mitigation and Enhancements 26
6.1 Surveys 26
6.2 Mitigation 27
6.3 Biodiversity Enhancements 29
7 Conclusions 30
8 References 32
9 Figures 33
Figure 1 - Site Location Map
Figure 2 - UK Habitats Classification Plan
Figure 3 - Waterbody Location Map

Appendix 1 – Proposed Plans 34
Appendix 2 – HSI Data 35
Appendix 3 – Reasonable Avoidance Measures 42

1 Introduction

1.1 Background

1.1.1 Smart Ecology was commissioned by Mr Bryant to undertake a Preliminary Ecological Appraisal of land at Gryphon Lodge Farm, Minety, Wiltshire, SN6 6RQ (central national grid reference SU 0423 9028). Refer to Figure 1, Section 9 for a location map, which shows the survey area delimited by a red-line boundary (hereafter referred to as the "site").

1.1.2 The purpose of the appraisal was to inform a planning application to Wiltshire Council for the formation of a fishing lake, the erection of one lodge for use by anglers, and associated landscaping within a grassland field. Refer to Appendix 1 for the proposed plans.

1.1.3 This report has been prepared with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017a), Guidelines for Ecological Report Writing (CIEEM, 2017b), and BS42020 Biodiversity – a code of practice for planners and developers (BSI, 2013).

1.2 Site Context

1.2.1 The site is approximately 4.9 ha and comprises a field of modified grassland bounded by hedgerows with trees. A broadleaved woodland is located immediately adjacent to the western site boundary, a complex of buildings is located to the north-east, and pasture/arable fields are located to the north and east. The wider landscape predominantly comprises farmland with boundary hedgerows/treelines, with multiple areas of woodland and lowland meadows also present.

1.3 Aims

1.3.1 The purpose of the survey and report was to:

- Identify any statutory[1] and non-statutory[2] designated sites on or close to the site.
- Provide an ecological baseline for the site including habitats[3] and the presence of, and potential for, legally protected[4], notable[5], and invasive non-native species.
- Identify any potential impacts on designated sites, habitats, and species.
- Provide details of further required surveys and/or mitigation.
- Provide recommendations for biodiversity enhancements.

[1] Statutory designated sites are those protected by legislation and include Ramsar, Special Protection Areas (SPA), Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), and Local Nature Reserves (LNR).
[2] Non-statutory designated sites are not afforded any legal (statutory) protection and are often designated by local authorities e.g. Local Wildlife Sites (LWS), County Wildlife Sites (CWS), and Key Wildlife Sites (KWS).
[3] Including priority habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
[4] Legally protected species include species afforded protection by the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
[5] Notable species include priority species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, UK red data book species, and Birds of Conservation Concern (BoCC).

2 Legislation and Planning Policy

2.1 Legislation

2.1.1 Certain species and habitats are legally protected in the UK by legislation. The key pieces of legislation are:

- The Conservation of Habitats and Species Regulations 2017 (as amended).
- Wildlife and Countryside Act 1981 (as amended).
- Natural Environment and Rural Communities (NERC) Act 2006.
- Protection of Badgers Act 1992.
- Wild Mammals (Protection) Act 1996.
- The Hedgerows Regulations 1997.
- The Environment Act 2021.

2.1.2 The implications of legislation with regard to species are provided in Table 2-1.

2.1.3 Only a brief summary of wildlife legislation is provided here for general guidance and should not be considered a definitive statement of the law. For detailed information the legislation itself should be consulted.

The Conservation of Habitats and Species Regulations 2017 (as amended)

2.1.4 These Regulations transpose the EU Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations require the designation and protection of European Sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) and the protection of European Protected Species (EPS).

2.1.5 A EPS mitigation licence is required if works affect EPS (e.g. bats) or their places of rest or breeding sites. EPS licences are issued by Natural England only after the following three tests have been satisfied:

- The proposed works must be for the purpose of preserving public health or safety or other imperative reasons of overriding public interest.
- There is no satisfactory alternative to the proposed works.
- The proposed works will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

2.1.6 It will be necessary to determine whether any European Sites or EPS may be impacted, either directly or indirectly, by the proposed development.

Wildlife and Countryside Act 1981 (as amended)

2.1.7 This Act implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Directive) and the EU Directive 79/409/EEC on the conservation of wild birds (Birds Directive).

2.1.8 The Act provides protection to a range of animal and plant species. It also requires sites with special wildlife or geological interest to be designated nationally as Sites of Special Scientific Interest (SSSI).

2.1.9 It will be necessary to consider whether the proposed development would have any direct or indirect impacts on any SSSI or species listed in relevant schedules of the Act.

Natural Environment and Rural Communities (NERC) Act 2006

2.1.10 Section 40 of this Act places a duty on public authorities to 'have regard' to conserving biodiversity when determining planning applications. Section 41 of the Act requires the Secretary of State to publish a list of species and habitats of principal importance to biodiversity (priority species and habitats). The local planning authority must 'have regard' to conserving these species and habitats when determining a planning application. The development would need to mitigate for any impacts on priority habitats and species.

2.1.11 The proposed development would need to mitigate for any impacts on priority habitats and species.

Protection of Badgers Act 1992

2.1.12 This Act provides specific protection for badgers and their setts from harm and disturbance.

2.1.13 The proposed development would need to mitigate any impacts on badgers and setts.

Wild Mammals (Protection) Act 1996

2.1.14 This Act makes it an offence to intentionally inflict unnecessary suffering on a wild mammal through mutilation, kicking, beating, nails, impaling, stabbing, burning, stoning, crushing, drowning, dragging, or asphyxiation.

2.1.15 Care would have to be taken during the construction phase of the proposed development to ensure that unnecessary suffering is not inflicted.

The Hedgerows Regulations 1997

2.1.16 These Regulations protect most hedgerows from removal unless permissioned by a local planning authority. They also provide historic and ecological criteria for defining important hedgerows. A local planning authority can only refuse permission to remove a hedgerow under the Hedgerows Regulations 1997 if a hedgerow is assessed to be important.

2.1.17 The proposed development should aim to retain and protect hedgerows and mitigate for impacts.

The Environment Act 2021

2.1.18 This Act sets statutory targets in four priority areas: biodiversity, air quality, water, and waste, and includes a new target to reverse the decline in species abundance by the end of 2030. The Act also makes provisions for a mandatory 10% net gain in biodiversity for all developments covered by the Town and Country Planning Act 1990; this is expected to come into force in January 2024.

Table 2-1: Implications of legislation with regard to species

Legislation	Species	Legal Implications
The Conservation of Habitats and Species Regulations 2017 (as amended)	• Bats • Hazel dormouse • Otter • Great crested newt	It is illegal to: • Deliberately capture, injure or kill these species. • Deliberately disturb[1] these species. • Damage or destroy a breeding site or resting place used by these species.
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(4) b and c and 9(5) only	• Bats • Hazel dormouse • Otter • Great crested newt	It is illegal to: • Intentionally or recklessly disturb these species while they are occupying a structure or place of shelter or protection. • Intentionally or recklessly obstruct access to a structure or place of shelter or protection.
Wildlife and Countryside Act 1981 (as amended)	• Birds	It is illegal to intentionally: • Kill, injure or take any wild bird. • Take, damage or destroy a wild bird's nest while it is in use or being built. • Take or destroy the eggs of any wild bird. There is additional protection for birds listed on Schedule 1 (S1) of the Act.
Wildlife and Countryside Act 1981 (as amended)	• Water vole	It is illegal to: • Intentionally kill, take, or injure water voles. • Intentionally or recklessly damage or destroy a place of shelter or protection. • Intentionally or recklessly disturb water voles while they are occupying a structure or place of shelter or protection. • Intentionally or recklessly obstruct access to a structure or place of shelter or protection.
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(1) (partial) and 9(5) only	• Common reptile species	It is illegal to: • Intentionally or recklessly kill or injure common lizard, slow worm, grass snake, and adder.
NERC Act 2006	• Priority species	Local planning authorities must '*have regard*' to conserving priority species. Priority species include several bat and bird species, otter, hazel dormouse, water vole, hedgehog, brown hare, harvest mouse, polecat, common reptile species, great crested newt, and common toad.
Protection of Badgers Act 1992	• Badger	It is illegal to: • Wilfully capture, kill or injure a badger. • Damage, destroy or obstruct access to setts. • Disturb badgers in setts.

[1] Disturbance under the Conservation of Habitats and Species Regulations 2017 (as amended) is defined as impairing the ability of an animal to survive, breed, reproduce, rear or nurture their young, hibernate or migrate, or to significantly affect the local distribution or abundance of the species.

2.2 Planning Policy

National Planning Policy Framework (NPPF) 2023

2.2.1 Paragraph 174 states that planning decisions should protect sites of biodiversity value, minimise biodiversity impacts, and contribute to net biodiversity gains.

2.2.2 Paragraph 180 states that planning permission should be refused if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for.

2.2.3 The NPPF emphasises the need to consider biodiversity at a landscape scale, conserving, restoring and enhancing priority habitats and ecological networks, and protecting priority species. The NPPF also specifies the need to protect designated sites from adverse harm and to protect irreplaceable habitats (e.g. ancient woodland and veteran trees).

2.2.4 The proposed development would need to mitigate for impacts on biodiversity and provide net biodiversity gains where possible.

Local Planning Policy

2.2.5 The presence of EPS, including bats, is a material consideration in the planning process and local planning authorities will refuse planning permission where a EPS licence is unlikely to be granted and a criminal offence relating to an EPS is likely to result from a development.

2.2.6 The Wiltshire Council Core Strategy (2015) sets out policies for development and land use in Wiltshire. Two policies are relevant to ecology and biodiversity at this site; refer to Table 2-2 for details. Refer to the original document for full wording of these policies.

Table 2-2: Wiltshire Core Strategy policies with relevance to ecology and biodiversity

Policy	Details
Core Policy 50: Biodiversity and Geodiversity	**Protection:** Development proposals must demonstrate how they protect features of nature conservation. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term. Where it has been demonstrated that such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity resource, and secure the integrity of local ecological networks and provision of ecosystem services. All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development. **Biodiversity enhancement:** All development should seek opportunities to enhance biodiversity. **Local Sites:** Sustainable development will avoid direct and indirect impacts upon local sites.
Core Policy 52: Green Infrastructure	Development shall make provision for the retention and enhancement of Wiltshire's green infrastructure network, and shall ensure that suitable links to the network are provided and maintained. Where development is permitted developers will be required to retain and enhance existing on site green infrastructure.

3 Methodology

3.1 Desk Study

3.1.1 A search was conducted for existing information on:

- Statutory and non-statutory designated sites within 1 km of the site.
- SSSI, SAC, SPA, and Ramsar sites Impact Risk Zones.
- Bat SAC Consultation Zones.
- Mapped priority habitats and ancient woodlands within 100 m of the site.
- Protected and notable species within 1 km of the site.
- Invasive non-native species within 1 km of the site.
- Granted EPS mitigation licences within 1 km of the site.
- Great crested newts licence returns and pond survey results within 1 km of the site.
- Great Crested Newt Risk Zones.
- Waterbodies within 500 m of the site.

3.1.2 The following organisation, websites, and document were consulted:

- Wiltshire and Swindon Biological Records Centre (WSBRC)[1].
- Multi-Agency Geographic Information Centre (MAGIC)[2].
- Natural England Open Data Geoportal[3].
- Bat SAC Planning Guidance for Wiltshire (Wiltshire Council, 2015).

3.1.3 The search areas are considered sufficient to take into account ecological receptors which could potentially be impacted by the proposed development.

3.2 Field Survey

Personnel

3.2.1 The field survey was carried out by Robert Dunn and Joseph Wilkie; see Table 3-1 for details of the surveyor's experience and qualifications.

Table 3-1: Surveyor information

Surveyor	Natural England Survey Licences	Qualifications/Experience
Robert Dunn BSc, MSc, ACIEEM	Bats level 1 (2016-23966) Great crested newt level 1 (2016-23661) Hazel dormouse level 1 (2016-26867)	Nine years' experience in ecological consultancy. MSc Environmental Biology: Conservation and Resource Management (University of Swansea - Merit). BSc Biological Sciences with Environmental Resources (University of Warwick – 1st).

[1] Data provided June 2023.
[2] https://magic.defra.gov.uk/MagicMap.aspx (accessed June 2023).
[3] https://naturalengland-defra.opendata.arcgis.com (accessed June 2023).

Surveyor	Natural England Survey Licences	Qualifications/Experience
Joseph Wilkie BSc, Qualifying member of CIEEM	Bats Level 1 (2021-54618)	Four years' experience in ecological consultancy. BSc Environmental Resource Management (Plymouth University – 1st).

Survey Weather Conditions

3.2.2 The survey was undertaken on the 21st of August 2023. See Table 3-2 for details of weather conditions during the survey.

Table 3-2: Survey weather conditions

Variable	Weather Conditions
Cloud cover	80 %
Temperature	20°C
Wind	Gentle breeze (BWS 3)
Precipitation	None

UK Habitat Classification and Species Survey

3.2.3 A walkover of the site was undertaken to map the habitats present. The habitats were mapped and classified using the UK Habitats Classification system with a minimum mapping unit of 25 m^2 (UKHab, 2023). Additionally, any priority habitats within the site were identified and habitats assessed for evidence of, and potential to support, legally protected, notable and invasive non-native species. Any evidence of, and potential for, such species was recorded. See Figure 2, Section 9 for the UK Habitats Classification Plan.

3.2.4 Specifically, the site was surveyed for evidence of, and potential for, the species/groups detailed in Table 3-3:

Table 3-3: Typical habitat requirements and field signs for surveyed species/groups

Species/ Group	Typical Habitat Requirements	Field Signs
Bats	Roost in buildings, trees, other structures, and underground sites. Foraging and commuting habitat include watercourses, waterbodies, hedgerows, tree-lines, scrub, woodland, pasture, and meadows.	Direct sighting, carcasses, droppings, urine, grease marks, feeding remains, squeaking.
Birds	Woodland, trees, scrub, hedgerows, moorland, heathland, wetlands, cavities within buildings, waterbodies, grassland.	Direct sightings, nests, droppings, feathers, eggs.
Badger	Woodland, dense scrub, hedgerows, moorland, grassland, field edges.	Direct sightings, setts, hair, footprints, dung, latrine pits, paths.

Species/ Group	Typical Habitat Requirements	Field Signs
Hazel dormouse	Deciduous and mixed woodland (especially coppice managed with a successional stage of vegetation). Also hedgerows, conifer plantations, and dense scrub.	Direct sighting, nests, gnawed nuts.
Otter	Holts in tree cavities, roots, rabbit burrows and bank-side rocks. Rivers, wetland, wet ditches, drains, ponds, lakes, coastal and marshland.	Direct sightings, anal jelly, spraint (dung), footprints, paths/tracks through vegetation, feeding remains, slides into and out of the water, couches (above ground resting places), holt entrances (below ground shelters).
Water vole	Vegetated banks on slow moving watercourses, reed beds, ponds, lakes, marshland, upland.	Direct sightings, latrines, droppings, feeding stations, burrows, feeding remains, lawns, nests, footprints.
Brown hare	Open farmland, grassland, woodland edges. Favours a mosaic of arable (cereal crops), grassland (with long areas for shelter) and hedgerows. Hare forms (resting places) may be in a grass tussock or behind a rock to give some protection. Hayfields provide better habitat than silage grassland as leverets are vulnerable to earlier cutting.	Direct sightings, footprints, droppings, forms, paths (tracks),
Hedgehog	Grassland, heathland, moorland, farmland, woodland, gardens	Direct sightings, footprints, droppings.
Polecat	Woodland, riverbank, marsh and farmland with hedgerows and small woods. Generalist species with wide ranges. Feed on rabbits, small rodents, birds, insects, frogs when gathered to spawn in the spring. Dens often in rabbit burrows in summer and move to farmyards (hay bales, under sheds, rubbish tips) in winter.	Direct sightings, footprints, droppings.
Harvest mouse	Long tussocky grassland, cereals, roadside verges, reedbeds, hedgerows, farmland and around woodland edges. Feed on seeds, berries, insects, cereal grains, also moss, roots and fungi. Nests found in dense vegetation (grasses, rushes, cereals, grassy hedgerows, ditches and brambles).	Direct sighting, nests.

Species/ Group	Typical Habitat Requirements	Field Signs
Amphibians	Waterbodies for breeding. Terrestrial habitat includes most semi-natural environments including rough grassland, marsh, scrub, woodland, hedgerows, brownfield and low-intensity farmland. Tree stumps, mammal burrows, stone piles, log piles, compost heaps for shelter and hibernation.	Direct sightings, eggs attached to vegetation in waterbodies.
Reptiles	Mosaic of habitats with potential for shelter and basking including rough grassland, scattered scrub, hedgerows, heathland, moorland, woodland glades, wetland, gardens and brownfield. Tree stumps, mammal burrows, stone piles, log piles, compost heaps for shelter and hibernation.	Direct sightings, sloughed skin.
Invertebrates	Diverse range of habitats including mature trees, deadwood, flower-rich grassland, tussocky grassland, waterbodies, wetlands, scrub, hedgerows and brownfield sites.	Direct sightings.
Fish	Running and standing water.	Direct sightings.
Plants	Waterbodies, woodland, grassland, hedgerow bases.	Direct sightings.
Invasive non-native species	All habitats.	Direct sightings.

3.2.5 An assessment was made of the likelihood that the protected, notable, and invasive non-native species/groups detailed in Table 3-3 occur on or close to the site with reference to the criteria provided in Table 3-4.

Table 3-4: Criteria for the assessment for the presence of species/groups

Likelihood of Occurrence	Assessment Criteria
Confirmed	Field signs and/or records confirm the presence of species/group.
High	Presence of species concerned not confirmed by field signs or records, but high quality suitable habitat present on site and connected to further suitable habitat AND/OR field signs present indicative of presence of species but presence not definitely proven. Site within known geographic distribution for the species/group.
Moderate	Presence of species concerned not confirmed by field signs or records, but moderate quality suitable habitat present on the site and some connectivity to further moderate or high quality suitable habitat in the wider landscape. Site within known geographic distribution for the species/group.

Likelihood of Occurrence	Assessment Criteria
Low	Presence of species concerned not confirmed by field signs or records. Low quality suitable habitat on the site AND/OR poor connectivity to further suitable habitat in the local landscape. However, possible presence of the species/group cannot be completely discounted. Site within known geographic distribution for the species/group.
Negligible	No field signs and/or records of species. No suitable habitat present on or close to the site. Site not within known geographic distribution for the species/group.

3.2.6 The survey included a great crested newt habitat suitability index (HSI) assessment of seven waterbodies, as follows:

Habitat Suitability Index (HSI)

3.2.7 Seven waterbodies (Waterbodies 1 – 4, 6, 7 and 9) were surveyed and assessed for their potential to support great crested newts using the HSI (Oldham et al., 2000). Refer to Figure 3, Section 9 for a map showing the location of these waterbodies.

3.2.8 The HSI is calculated using measures of ten environmental factors known to impact great crested newts. It is a numerical index between 0 to 1, where 0 indicates unsuitable (poor) habitat and 1 indicates optimum (excellent) habitat. HSI categories are provided in Table 3-5.

Table 3-5: HSI categories

HSI Score	Category
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

3.3 Evaluation of Ecological Features

3.3.1 A valuation of ecological features (designated sites, species, and habitats) was undertaken in accordance with CIEEM guidance (CIEEM, 2022). Valuation is determined using the geographic framework provided in Table 3-6.

3.3.2 The value of an ecological feature is based on a professional ecologist's judgement and takes into consideration various characteristics including any site designations, species records, priority species and habitats, species rarity, the quality of the resources (e.g. habitat diversity, species population size), and location within the landscape context.

3.3.3 Sometimes it is not possible to provide a valuation of ecological features in the absence of data, which would have to be provided by further ecological surveys. Important ecological features, which may pose a constraint to the proposed development, are those with an ecological value which could be impacted by the development. These are the features which may require further survey work and mitigation.

Table 3-6: Framework for assessing the value of ecological features

Geographic Scale	Example of Ecological Feature
International **(most important)**	An internationally designated site e.g. Special Areas of Conservation (SAC), Special Protection Area (SPA), Ramsar sites. Regularly occurring populations of internationally important species.
National	Site of national importance e.g. Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR). Regularly occurring populations of nationally important species.
Regional	Non-statutory site e.g. Local Wildlife Site (LWS), Key Wildlife Site (KWS), Country Wildlife Site (CWS) supporting a regionally significant area of priority habitat or regionally significant population of legally protected/priority species.
County	Non-statutory site e.g. Local Wildlife Site (LWS), Key Wildlife Site (KWS), Country Wildlife Site (CWS), ancient woodland, site supporting priority habitats, priority species, and/or legally protected species of significance for the county.
Local	Habitats which enhance the local habitat resource e.g. old species-rich hedgerow, deciduous woodland, pond, small areas of priority habitat or areas supporting small populations of legally protected/priority species which are not rare within the region, county, or nationally.
Site	Habitats of limited ecological importance e.g. scattered trees, hedgerows, woodland plantations, small areas of non-priority habitats that are of value for wildlife. Species of limited ecological importance.
Negligible **(least important)**	Hardstanding, bare ground, built environment, and other areas with negligible biodiversity value, including for priority and legally protected species.

3.4 Limitations

3.4.1 Many of the species records provided by WSBRC were at low spatial resolution and therefore the precise location of these records could not be determined, although they still provide background information on species present in the local area. Additionally, it must be noted that the accuracy of these records (e.g. correct species identification) has not been independently verified, and that an absence of records does not necessarily mean that a species is not present within the search area.

3.4.2 Access was not obtained for access to survey Waterbodies 5, 8, 10, 11, and 12 for the HSI assessment. This is not considered to be a significant limitation provided that surveys are subsequently carried out of these waterbodies, or if the district level licence is joined.

4 Baseline Ecological Conditions

4.1 Desk Study

Statutory Designated Sites

4.1.1 Refer to Table 4-1 for details of statutory designated sites located within 1 km of the site.

Table 4-1: Statutory designated sites within 1 km

Site Name	Approximate Distance from Site (m)	Description
Distillery Farm Meadows SSSI	802	Botanically diverse area of unimproved neutral grassland in the Upper Thames Basin.

SSSI, SAC, SPA, and Ramsar Sites Impact Risk Zones

4.1.2 The local planning authority should consult with Natural England on likely risks from the following:

New residential/tourist accommodation in this area requires an HRA and financial contributions towards SAMM/SANG to mitigate increased effects from recreational use of North Meadow SAC. Consult the LPA.

Any discharge of water or liquid waste of more than 20m³/day to ground (i.e. to seep away) or to surface water, such as a beck or stream.[1]

Bat SAC Consultation Zone

4.1.3 The site is not located in a SAC Consultation Zone.

Non-Statutory Designated Sites

4.1.4 No non-statutory designated sites are located within 1 km of the site.

Mapped Priority Habitats and Ancient Woodlands

4.1.5 Refer to Table 4-2 for details of priority habitat and ancient woodland records within 100 m of the site.

Table 4-2: Priority habitat and ancient woodland records within 100 m

Priority Habitat and Ancient Woodlands	Details
Broadleaved deciduous woodland	Area mapped adjacent to the western site boundary.
Ancient woodland	None within 100 m.

[1] Only applicable if the proposals would result in the discharge of water or liquid waste of more than 20m³/day.

Species Records

4.1.6 Species records provided by WSBRC are summarised in Table 4-3. To ensure the relevancy of data, records more than 20 years old were screened out of the data search.

Table 4-3: Summary of desk study species records

Group	Species	No. of Records	Closest Record (m)	Comments
Bat	Pipistrelle species	1	289.34 (+/- 1 km)	Roost record
Bird	Barn Owl	5	610.68 (+/- 100 m)	-
	Red Kite	1	589.34 (+/- 100 m)	-
	Starling	1	289.34 (+/- 1 km)	-
	Woodcock	1	1,289.33 (+/- 1 km)	-
Other mammals	Brown Hare	2	110.71 (+/- 100 m)	-
	Badger	1	629.34 (+/- 10 m)	-
	Hedgehog	2	720.68 (+/- 10 m)	-
Amphibian	Great Crested Newt	1	247.42 (+/- 10 m)	-
Insect - butterfly	Brown Hairstreak	17	289.34 (+/- 1 km)	-
Insect - moth	Lackey	2	1,289.33 (+/- 1 km)	-
Flowering plant	Knotted Hedge-parsley	1	4.06 (+/- 10 m)	-

Granted EPS Mitigation Licences

4.1.7 There are no records of granted EPS mitigation licences within 1 km of the site.

Great Crested Newt Licence Returns and Pond Survey Results

4.1.8 There are no records of great crested newt licence returns or pond survey results within 1 km of the site.

Great Crested Newt Risk Zones

4.1.9 The site is located within an amber risk zone for great crested newts, which contain main population centres for great crested newts and comprise important connecting habitat that aids natural dispersal.

Waterbodies

4.1.10 Twelve waterbodies were identified within 500 m of the site using maps and aerial imagery; see Table 4-4 for the distances of the waterbodies from the site and Figure 3, Section 9 for a map showing the location of these waterbodies.

Table 4-4: Waterbodies within 500 m

Waterbody	Approximate Distance from Site (m)
1	160
2	180
3	200
4	200
5	210
6	240
7	250
8	250
9	250
10	415
11	435
12	495

4.2 Field Survey – Habitats

4.2.1 The location and extent of habitats on and close to the site are shown on the UK Habitats Classification Plan; see Figure 2, Section 9.

Modified Grassland – g4 102 (Sheep Grazed)



4.2.2 The site area was dominated by species-poor grassland, which is understood to be periodically grazed by sheep. Grass species were dominant and included perennial rye-grass, meadow foxtail, creeping bent and Yorkshire fog. Forb species present included a low abundance of creeping buttercup, meadow buttercup, and spear thistle.

4.2.3 The location of hedgerows on the site, which are referenced as Hedgerows H1, H2, and H3 in this report, are shown on the UK Habitats Classification Plan (Figure 2, Section 9).

4.2.4 The hedgerows are classified as hedgerow priority habitat as they contained more than 80% coverage of at least one native woody species.

Hedgerow H1



4.2.5 This was a shrubby hedgerow approximately 1.8 m high and 2 m wide, located along the northern site boundary. Tree species present included mature pedunculate oak and field maple Woody species present in the shrub layer included blackthorn, field maple, hawthorn, elder and dogwood. Ground flora species present were typical of nutrient enriched conditions and included common nettle, broad-leaved dock, and false oat-grass.

Hedgerow H2



4.2.6 This was a tall shrubby hedgerow approximately 4 - 5 m high, located along the southern site boundary, which had grown out to trees, A line of trees was located immediately to the south of the hedgerow, along the adjacent train line. Tree species present included hawthorn, blackthorn, field maple, ash and elder. Woody species present in the shrub layer included dogwood, wild privet, and spindle. Bramble, ivy, rose sp. and hedge bindweed were growing within the shrub layer. Ground flora species present included common nettle, common vetch, cow parsley, spear thistle, woody nightshade, broad-leaved dock, and cut-leaved crane's-bill.

Hedgerow H3



4.2.7 This was a managed hedgerow approximately 1.8 m high and 2 m wide located along the eastern site boundary. Tree species present included field maple and pedunculate oak. Woody species present in the shrub layer included hawthorn, elder, blackthorn, dogwood, and wild privet, with black bryony and rose sp. growing within the shrub layer. Ground flora species present included common nettle, common vetch, cow parsley, spear thistle, woody nightshade, broad-leaved dock, and cut-leaved crane's-bill.

Lowland Mixed Deciduous Woodland – w1f



4.2.8 An area of woodland was present adjacent to the western site boundary (off-site).

4.3 Field Survey – Species

4.3.1 Table 4-5 provides details of an assessment of the suitability of habitats on and close to the site for protected, notable, and invasive non-native species/groups, details of any evidence of these species/groups, and an assessment of the likelihood that these species/groups occur on or close to the site.

Table 4-5: Site suitability for protected and notable species/groups and invasive non-native species

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Bats (foraging and commuting)	The boundary hedgerows offered suitable commuting habitat, providing connectivity through the local landscape. The species-poor modified grassland provided lower value foraging habitat. The edge of the woodland located adjacent to the western site boundary provided suitable commuting habitat, and the woodland provides potential for foraging.	N/A	**HIGH (hedgerows and woodland edge)** **LOW (modified grassland)** Record of pipistrelle species within 1 km of the site (roost record). Surveys of a building at Gryphon Lodge Farm carried out in 2022 by Smart Ecology identified common and soprano pipistrelle day roosts, and Natterer's bat and lesser horseshoe bat night roosts close to the site (Smart Ecology, 2022). Extensive areas of suitable foraging and commuting habitat present in the local landscape. Bats are highly likely to commute along boundary hedgerows and woodland edge, and the woodland adjacent to the site provides potentially valuable foraging habitat. The modified grassland provided lower value foraging habitat.

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Bats (roosting)	Trees within hedgerows and the adjacent woodland could potentially contain roosts.	None	**HIGH** Record of pipistrelle species within 1 km of the site (roost record). Surveys of a building at Gryphon Lodge Farm carried out in 2022 by Smart Ecology identified common and soprano pipistrelle day roosts, and Natterer's bat and lesser horseshoe bat night roosts close to the site (Smart Ecology, 2022). Highly suitable foraging and commuting habitat present on the site and in the local landscape, which indicates a higher likelihood that roosts may be present in trees on and close to the site where roost features are present.
Birds	Woodland adjacent to the site, and on-site hedgerows provided suitable nesting and foraging habitat. The grassland provided suitable foraging habitat.	None	**HIGH** Records of several species within 1 km of the site, including legally protected and notable species. Suitable nesting and foraging habitats on the site for a variety of species, and further suitable habitat in the vicinity of the site.
Badger	Suitable foraging and dispersal habitat present on the site.	No setts on or within 30 m of the site.	**HIGH** One record within 1 km of the site. Use of the site for foraging and dispersal possible.

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Hazel dormouse	The on-site hedgerows and the woodland adjacent to the site provided suitable habitat for hazel dormice, with a range of native tree and shrub species present which would provide a food resource. At least 20 ha of suitable habitat is considered to be the minimum size required to support viable dormouse populations (Bright et al, 2006). Although the woodland adjacent to the site was only approximately 0.7 ha in size it is connected via hedgerows and tree lines to a larger area of woodland and scrub habitat (approximately 25 ha) located to the southern site boundary on the other side of a train line. Therefore it is considered possible that dormice could occur on and close to the site.	None	**MODERATE** No records within 1 km of the site. Suitable habitat present on and in the vicinity of the site.
Otter	No watercourses located on, or in the immediate vicinity, of the site. Nearby ponds could potentially be used for foraging, and the closest watercourse (Derry Brook) is located approximately 165 m from the site at its closest point.	None	**LOW** No records within 1 km of the site.
Water vole	No ponds or watercourses present on, or in the immediate vicinity, of the site. Nearby ponds and pond banks could potentially suitable habitat for water voles and the closest watercourse (Derry Brook) is located approximately 165 m from the site at its closest point.	None	**NEGLIGIBLE** No records within 1 km of the site. No suitable habitat present on, or in the immediate vicinity, of the site.
Other mammals	The grassland and base of hedgerows and adjacent woodland provided suitable foraging and dispersal habitat for hedgehogs and polecat, and potential for refuge and nesting within the hedgerows and adjacent woodland. The grassland provided suitable foraging and dispersal habitat for brown hares.	None	**MODERATE** Records of hedgehogs and brown hares within 1 km of the site. Suitable habitat on and in the vicinity of the site for hedgehog, polecat, and brown hare.

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Amphibians	No ponds were located on the site, and 12 ponds were identified within 500 m of the site. See Appendix 2 for the results of the HSI assessments. Waterbody 1 (located approximately 160 m from the site) was assessed to have excellent suitability for great crested newts. Waterbodies 2 and 7 (located approximately 180 m and 250 m from the site respectively) were assessed to have good suitability for great crested newts. Waterbodies 4 and 9 (located approximately 200 m and 250 m from the site respectively) were assessed to have below average suitability for great crested newts. Waterbodies 3 and 6 located (approximately 200 m and 240 m from the site respectively) were assessed to have poor suitability for great crested newts The base of hedgerows and the grassland provided suitable foraging and dispersal habitat, and the base of hedgerows and adjacent woodland provided suitable habitat for refuge and brumation.	None	**MODERATE** One record of great crested newt, originating from a location approximately 247 m (+/- 10 m) from the site. The site is located within an amber risk zone for great crested newts. Amber zones contain main population centres for great crested newts and comprise important connecting habitat that aids natural dispersal. Suitable terrestrial foraging, refuge, brumation and dispersal habitat present on the site, including for great crested newts, with further suitable habitat present in the vicinity of the site.
Reptiles	The base of hedgerows and adjacent woodland provided suitable habitat for dispersal, refuge and brumation. The grassland could be occasionally used for foraging and dispersal; if permitted to grow into a tussocky sward then the suitability of the grassland for reptiles would be increased.	None	**LOW** No records within 1 km of the site. Suitable foraging, refuge, brumation, and dispersal habitat present on the site, with further suitable habitat present in the vicinity of the site.

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Invertebrates	Long-sward grassland and hedgerows could support a range of common and widespread invertebrate species.	None	**LOW** Records or brown hairstreak and lackey within 1 km of the site. Suitable habitat on and close to the site likely to be used by common and widespread species.
Fish	No suitable habitat on the site.	None	**NEGLIGIBLE** No records within 1 km of the site.
Plants	Habitats on the site are common and ubiquitous, and are considered unlikely to support protected or notable species.	None	**NEGLIGIBLE** Record of knotted hedge-parsley provided within 1 km of the site.
Invasive non-native species	N/A	None	**NEGLIGIBLE** No records within 1 km of the site. No invasive non-native species noted during the survey.

5 Ecological Constraints

5.1 Development Proposals

5.1.1 It is proposed to form a fishing lake, erect one lodge for use by anglers, and carry out associated landscaping within a grassland field. No hedgerows would be removed and no external lighting is proposed. The proposed lodge would be situated to avoid light spill from the interior onto hedgerows or woodland. Refer to Appendix 1 for the proposed plans.

5.2 Great Crested Newt Rapid Risk Assessment

5.2.1 A Natural England Rapid Risk Assessment (RRA) was undertaken (see Figure 5-1), which is an assessment of the likelihood that the proposed development would result in an offence with respect to great crested newts. This RRA assumes that great crested newts are present within all waterbodies located within 500 m of the site and that the whole site is cleared of suitable habitat. It is also assumed that precautionary methods of working would be implemented during site clearance and works to avoid impacts on individual great crested newts. This RRA indicates that it is likely that the proposed development would result in an offence being committed with respect to great crested newts.

Component	Likely effect	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100 m of any breeding pond(s)	No effect	0
Land 100 - 250m from any breeding pond(s)	1 - 5 ha lost or damaged	0.4
Land >250 m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.4
Rapid Risk Assessment result:	**AMBER: OFFENCE LIKELY**	

Figure 5-1: Rapid Risk Assessment (Natural England, 2015)

5.3 Evaluation of Potential Impacts

5.3.1 Statutory and non-statutory designated sites, protected and ecologically valuable habitats, and protected and notable species may pose a constraint if there is potential for them to be impacted by a proposed development. Invasive non-native species may also pose a constraint to development, and provide opportunities to enhance the biodiversity value of a site by their removal or control.

5.3.2 Table 5-1 provides a valuation of features on and close to the site which could be impacted by the proposed development, justification for the valuation, and details of potential impacts upon these features in the absence of mitigation. Only species which were present or assessed to have potential to be present on or close to the site are included in the valuation. Features highlighted in blue have the potential to pose a constraint to the proposed development of the site and would require further surveys and/or mitigation (see Section 6).

Table 5-1: Valuation and potential impacts on ecological features

Ecological Feature	Value	Justification for Value	Potential Impacts Without Mitigation
North Meadow SAC (statutory designated site)	National	Site of national importance for biodiversity.	New tourist accommodation could potentially result in increased effects on North Meadow SAC due to recreational use.
Cotswold Water Park SSSI (statutory designated site)	National	Site of national importance for biodiversity.	Impacts on the SSSI due to the discharge of water or liquid waste to ground or to surface water.
Other statutory designated sites	International/ National	Sites of international or national importance for biodiversity.	No impacts are anticipated due to their distance from the site.
Mapped priority habitats (Lowland mixed deciduous woodland located adjacent to the western site boundary)	County	Habitats of value for wildlife and with intrinsic value which contribute to the biodiversity resource of the county.	Damage to woodland located adjacent to the western site boundary during works.
Ancient woodland	National	Irreplaceable habitat.	No impacts are anticipated due to their distance from the site (more than 100 m).
Modified grassland	Site	Common and widespread habitat.	It is not anticipated that the removal of this habitat would have a significant biodiversity impact. However, see potential impacts on species.
Hedgerows	Site	Priority habitat. Provided suitable habitat for a range of species.	Damage to hedgerows and trees within hedgerows during works.

Ecological Feature	Value	Justification for Value	Potential Impacts Without Mitigation
Bats (foraging and commuting)	Unknown	Suitable foraging and commuting habitat present on the site.	Loss of modified grassland is considered unlikely to have a significant impact on local bat populations. Further and more extensive suitable habitat in the local landscape. No loss of hedgerow is proposed. No artificial lighting impacts on the on-site hedgerows and woodland located adjacent to the site are anticipated.
Bats (roosting)	Unknown	Trees on and close to the site could potentially contain roosts.	No artificial lighting impacts on trees within hedgerows or the woodland located adjacent to the site are anticipated.
Birds	Site	Suitable foraging and nesting habitat present on the site.	Loss of modified grassland is considered unlikely to have a significant impact on local bird populations. Further and more extensive suitable habitat in the local landscape.
Badger	Site	Suitable foraging and dispersal habitat present on the site.	Loss of modified grassland is considered unlikely to have a significant impact on the local badger population. Further and more extensive suitable habitat in the local landscape. Injury/death if badgers become trapped in any excavations or open pipework during works.
Hazel dormouse	Unknown	Hedgerows and adjacent woodland provided suitable habitat, and further suitable habitat in the vicinity of the site.	No loss of hedgerow is proposed. No artificial lighting impacts on the on-site hedgerows and woodland located adjacent to the site are anticipated.

Ecological Feature	Value	Justification for Value	Potential Impacts Without Mitigation
Other mammals	Site	Suitable habitat for hedgehog, polecat, and brown hare.	Loss of modified grassland is considered unlikely to have a significant impact on the local hedgehog, polecat, and brown hare population. Further and more extensive suitable habitat in the local landscape.
			Injury/death if animals become trapped in any excavations or open pipework during works.
Amphibians	Site	Suitable terrestrial habitat on the site that could be used by great crested newts and common amphibian species, although predominantly of lower value for amphibians (grazed modified grassland).	Loss of modified grassland is considered unlikely to have a significant impact on local amphibian populations. Further and more extensive suitable habitat in the local landscape.
			Injury/death during site clearance and construction, including of great crested newts. Potential for disturbance of great crested newts.
Reptiles	Site	Suitable habitat on the site, although predominantly of lower value for reptiles (grazed modified grassland).	Loss of modified grassland is considered unlikely to have a significant impact on local reptile populations. Further and more extensive suitable habitat in the local landscape.
			Injury/death during site clearance and construction.
Invertebrates	Site	Suitable habitat on the site, likely to be used by common and widespread species.	No significant impacts are anticipated. Further and more extensive suitable habitat in the local landscape.

6 Surveys, Mitigation and Enhancements

6.1 Surveys

Great Crested Newts

6.1.1 The proposed development could potentially kill, injure, or disturb great crested newts during works. In order to ensure compliance with legislation and planning policy it will be necessary to either:

1. Undertake Habitat Suitability Index surveys of waterbodies (other than those already surveyed) located within 500 m of the site to assess their suitability for great crested newts; if waterbodies had suitability for great crested newts then it would be necessary to undertake great crested newt presence/likely absence surveys of suitable ponds within 500 m of the site. This can be achieved either by analysing water samples from ponds within 500 m of the site for great crested newt environmental DNA (eDNA) (samples must be taken between mid-April and the end of June) or undertaking four rounds of bottle trapping/torching/egg search surveys of ponds (between mid-March and mid-June, with at least two of the surveys undertaken between mid-April and mid-May). If eDNA analysis identified that great crested newts were present in ponds then six rounds of bottle trapping/torching/egg search surveys may be needed to determine population size (mid-March to mid-June, with at least three of the surveys carried out between mid-April and mid-May). If bottle trapping/torching/egg search presence/likely absence surveys identified that great crested newts were present in a pond then two further bottle trapping/torching/egg search surveys may have to be carried out between mid-March and mid-June to determine population size, with at least one of the surveys undertaken between mid-April and mid-May;

   or

2. Apply to join the District Level Licensing Scheme, which is administered by Natural England[1]. This would avoid the requirement for further surveys. The developer would apply to Natural England to join the scheme and pay an enquiry fee, and conservation payment (if required at this stage). Natural England would then provide an Impact Assessment and Conservation Payment Certificate document which must be provided with the planning application. If planning permission is granted, the developer must then apply for a District Level licence and pay the licence fee and any required conservation to Natural England.

[1] https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes

6.2 Mitigation

North Meadow SAC.

6.2.1 New tourist accommodation in this area requires an HRA (Habitat Regulations Assessment) to be carried out by the Local Planning Authority, and financial contributions towards SAMM/SANG to mitigate the increased effects from recreational use of the SAC.

6.2.2 Consult the Local Planning Authority to determine whether the proposed angler accommodation would require a financial contribution to SAMM/SANG.

Distillery Farm Meadows SSSI

6.2.3 If the proposed development would result in water or liquid waste of more than 20m³/day being released to the ground (i.e. to seep away) or to surface water, such as a beck or stream then the Local Planning Authority should consult with Natural England.

Lowland Mixed Deciduous Woodland

6.2.4 Where necessary, protect the woodland located adjacent to the western site boundary during works by erecting temporary fencing or barrier tape around the root protection area or using suitable ground protection in accordance with BS5387 - trees in relation to design, demolition and construction (BSI, 2012). The root protection area should be calculated as 12 times the tree stem diameter, unless otherwise advised by an arboricultural specialist. This must be installed prior to works commencing and retained throughout the construction period.

Hedgerows

6.2.5 Where necessary, protect hedgerows during works by maintaining a zone delimited by a temporary fence or barrier tape or using suitable ground protection at least 5 m from the hedgerow's central point. This protection should be installed prior to works commencing and retained throughout the construction period.

6.2.6 Protect trees within the hedgerows by maintaining a root protection area around trees with a radius equivalent to 12 times the tree stem diameter, unless otherwise informed by an arboricultural specialist. Any trees close to the works which could potentially be impacted must be protected by erecting fencing around the root protection area or by using suitable ground protection in accordance with BS5387 - *trees in relation to design, demolition and construction* (BSI, 2012). This protection must be installed prior to works commencing and retained throughout the construction period.

Badgers & Other Mammals

6.2.7 During works it is recommended that excavations are covered overnight to prevent badgers falling in and becoming trapped. If excavations cannot be covered then a ramp at least 40 cm wide must be installed, with an angle no steeper than 40 degrees, to enable animals to escape. Excavations must be checked every morning to ensure that there are no trapped animals, and any animals present left to escape by their own volition (badger) or moved outside of the works area. Any open pipework larger than 100 mm outside diameter must be capped overnight to prevent badgers and other animals from becoming trapped.

6.2.8 Retain an area of wilder habitat suitable for hedgehogs and brown hare, for example by retaining a border of tall grassland, tall ruderal and scrub along a boundary of the site. Create habitat piles from vegetation cleared from the site to provide refuge habitat for hedgehogs.

Amphibians

6.2.9 Full details of mitigation required for amphibians must be provided with the results of the further great crested newt surveys or after the great crested newt district level licensing scheme has been joined.

6.2.10 Indicative Reasonable Avoidance Measures which would be implemented during works if the district level licensing scheme is joined (subject to any requirements from Natural England) are provided in Appendix 3.

6.2.11 No site clearance must take place until the further required surveys for great crested newts have been carried out or the district level licensing scheme has been joined.

Reptiles

6.2.12 Mitigation for reptiles must be determined once the further required surveys for great crested newts have been carried out or after the great crested newt district level licensing scheme has been joined.

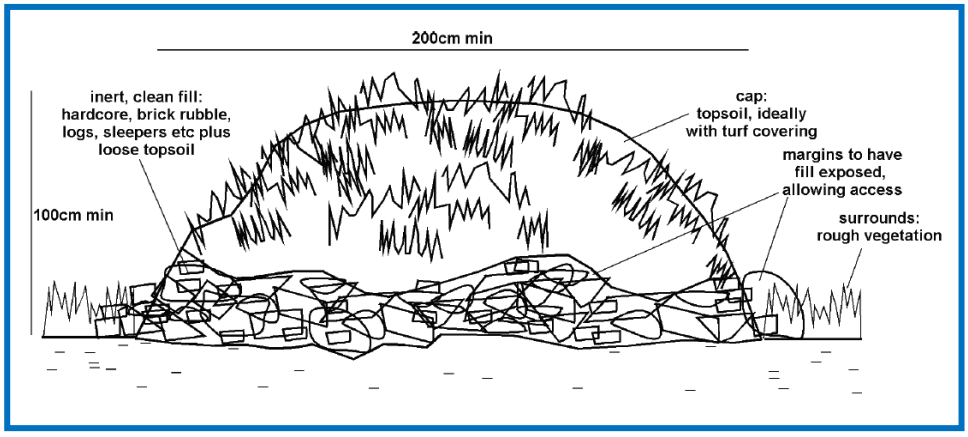
6.2.13 Indicative Reasonable Avoidance Measures which would be implemented during works if the district level licensing scheme is joined (subject to any requirements from Natural England) are provided in Appendix 3.

6.3 Biodiversity Enhancements

6.3.1 Under the Environment Act 2021, all new planning applications (other than small sites[1]) will have to provide at least 10 % biodiversity net gain (BNG) from January 2024. BNG will be required for small sites from April 2024. BNG will be measured using Defra's biodiversity metric.

6.3.2 In line with the NPPF and local planning policy, details of proposed measures to provide biodiversity enhancements are outlined in Table 6-1.

Table 6-1: Proposed biodiversity enhancements

Opportunity	Details
Woodland planting	2400 m^2 of native broadleaved woodland planting is proposed in the north-east of the site.
Hedgerow tree planting	Eleven standard trees are proposed to be planted along the southern boundary hedgerow.
Installation of a bird nest box	One 1B Schwegler Bird Box is proposed to be installed on a tree within the eastern boundary hedgerow. The box will be installed at least 3 m above ground level, and face between the north and east to avoid direct sunlight and prevailing wind and rain, and will have a clear flight path to and from the entrance.
Installation of a bat box	One 1FF Schwegler Bat Box is proposed to be installed on a tree within the eastern boundary hedgerow. The box will be installed at least 3 m above ground level, facing to the south, south-west and/or south-east, with a clear flight path to and from the entrance.
Creation of a hibernaculum	One hibernaculum is proposed to be created in the eastern part of the site. The hibernaculum will be orientated on an east-west axis to ensure one side is south facing. If the soil is free draining the fill material will be placed in an excavation in the ground. The hibernaculum will be approximately 2 m long by 2 m wide and 1 m high. See the figure below for an example of a hibernaculum design. 

[1] Small sites are defined for the purpose of the BNG exemption as:
(i) For residential: where the number of dwellings to be provided is between one and nine inclusive on a site having an area of less than one hectare, or where the number of dwellings to be provided is not known, a site area of less than 0.5 hectares.
(ii) For non-residential: where the floor space to be created is less than 1,000 square metres OR where the site area is less than one hectare.

7 Conclusions

7.1.1 It is proposed to form a fishing lake, erect one lodge for use by anglers, and carry out associated landscaping within a grassland field. No hedgerows would be removed and no external lighting is proposed. The proposed lodge would be situated to avoid light spill from the interior onto hedgerows or woodland. Refer to Appendix 1 for the proposed plans.

7.1.2 It is recommended that the Local Planning Authority is consulted to determine whether the proposed accommodation would require a financial contribution to SAMM/SANG.

7.1.3 If the proposed development would result in water or liquid waste of more than 20m³/day being released to the ground (i.e. to seep away) or to surface water, such as a beck or stream then the Local Planning Authority should consult with Natural.

7.1.4 Surveys must either be carried out of ponds within 500 m of the site with respect to great crested newts, or the district level licensing scheme must be joined. No significant impacts on other protected or notable species are considered likely if the mitigation measures provided in this report are implemented.

7.1.5 A summary of potential impacts which could arise from the proposed development and details of potentially required further surveys and required mitigation are provided in Table 7-1.

Table 7-1: Summary of potential impacts and further surveys and mitigation

Ecological Feature	**Potential Impacts without Mitigation** (refer to Section 5)	**Surveys/Mitigation** (refer to Sections 6.1 & 6.2)
Statutory designated sites	New tourist accommodation could potentially result in increased impacts on North Meadow SAC due to recreational use. The site is located in an impact risk zone where Natural England has identified that the discharge of water or liquid waste of more than 20m³/day could potentially result in pollution of a SSSI.	Consult the Local Planning Authority to determine whether the proposed angler accommodation would require a financial contribution to SAMM/SANG. If the proposed development would result in water or liquid waste of more than 20m³/day being released to the ground or to surface water then the Local Planning Authority should consult with Natural England with respect to potential impacts on the SSSI.
Lowland mixed deciduous woodland	Damage to adjacent woodland during works.	Protect woodland during works, where necessary.
Hedgerows	Damage to hedgerows and trees within hedgerows during works.	Protect hedgerows and trees within hedgerows during works, where necessary.
Badgers & other mammals	Injury/death if badgers and other mammals become trapped in any excavations or open pipework during works.	Cover excavations or provide a ramp overnight and cap any open pipework overnight.

Ecological Feature	Potential Impacts without Mitigation (refer to Section 5)	Surveys/Mitigation (refer to Sections 6.1 & 6.2)
Amphibians	Injury/death during site clearance and construction, including of great crested newts. Potential for disturbance of great crested newts.	**Great crested newt HSI and presence/ likely absence surveys (March to mid-June) or eDNA water sampling (mid-April to June) of waterbodies within 500 m of the site, or the district level licensing scheme must be joined, which would avoid the need for further surveys.** Required mitigation for amphibians must be determined once surveys have been carried out or after the district level licensing scheme has been joined.
Reptiles	Injury/death during site clearance and construction.	Mitigation for reptiles must be determined once the further required surveys for great crested newts have been carried out or after the great crested newt district level licensing scheme has been joined.

8 References

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9 Figures

Figure 1 - Site Location Map

Figure 2 - UK Habitats Classification Plan

Figure 3 - Waterbody Location Map

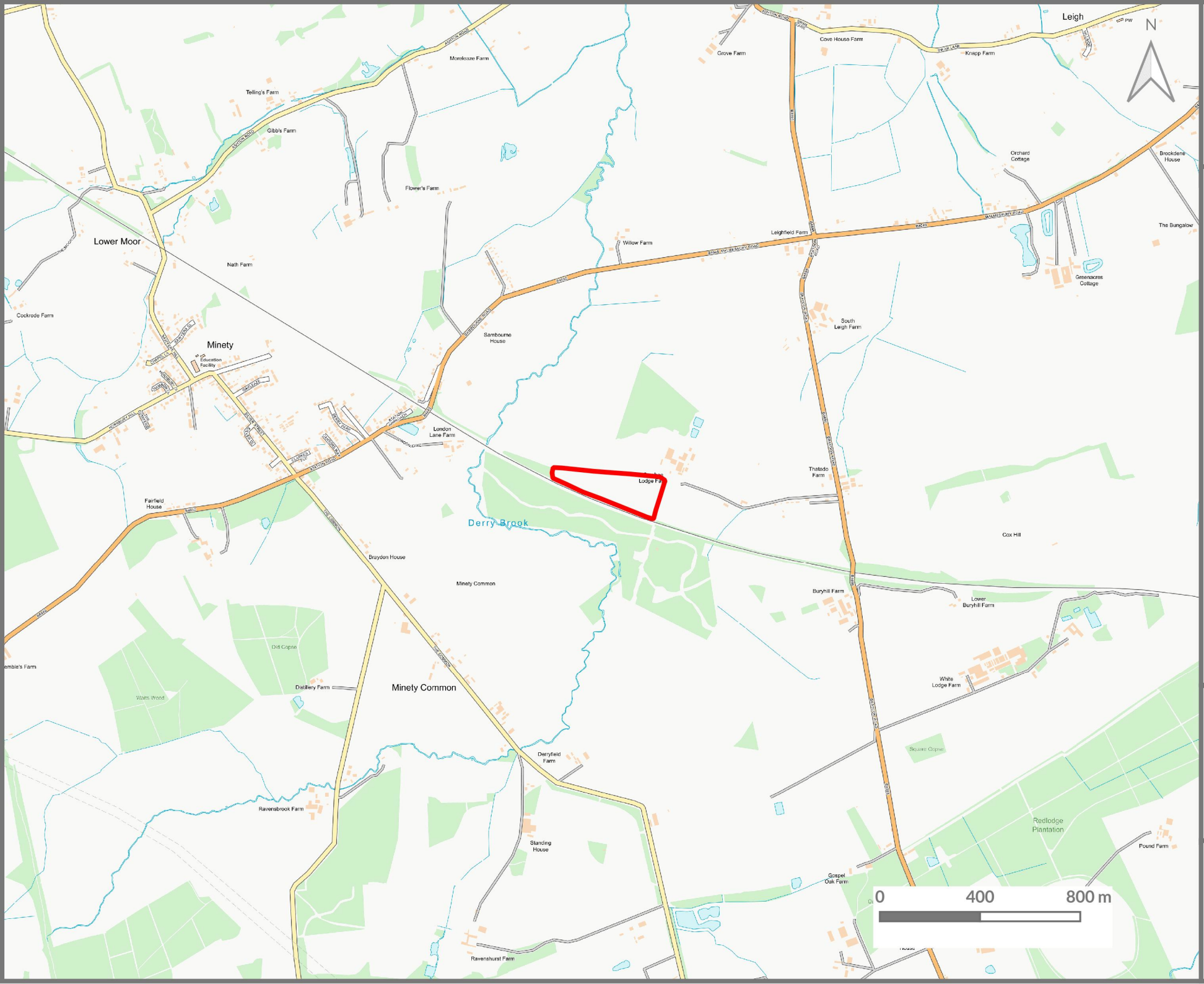

Figure 1 -
Site Location Map

Land at Gryphon Lodge Farm,
Minety,
Wiltshire,
SN6 6RQ

Site boundary

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Date:	04/09/2023
Drawn by:	Joseph Wilkie
Checked by:	Robert Dunn

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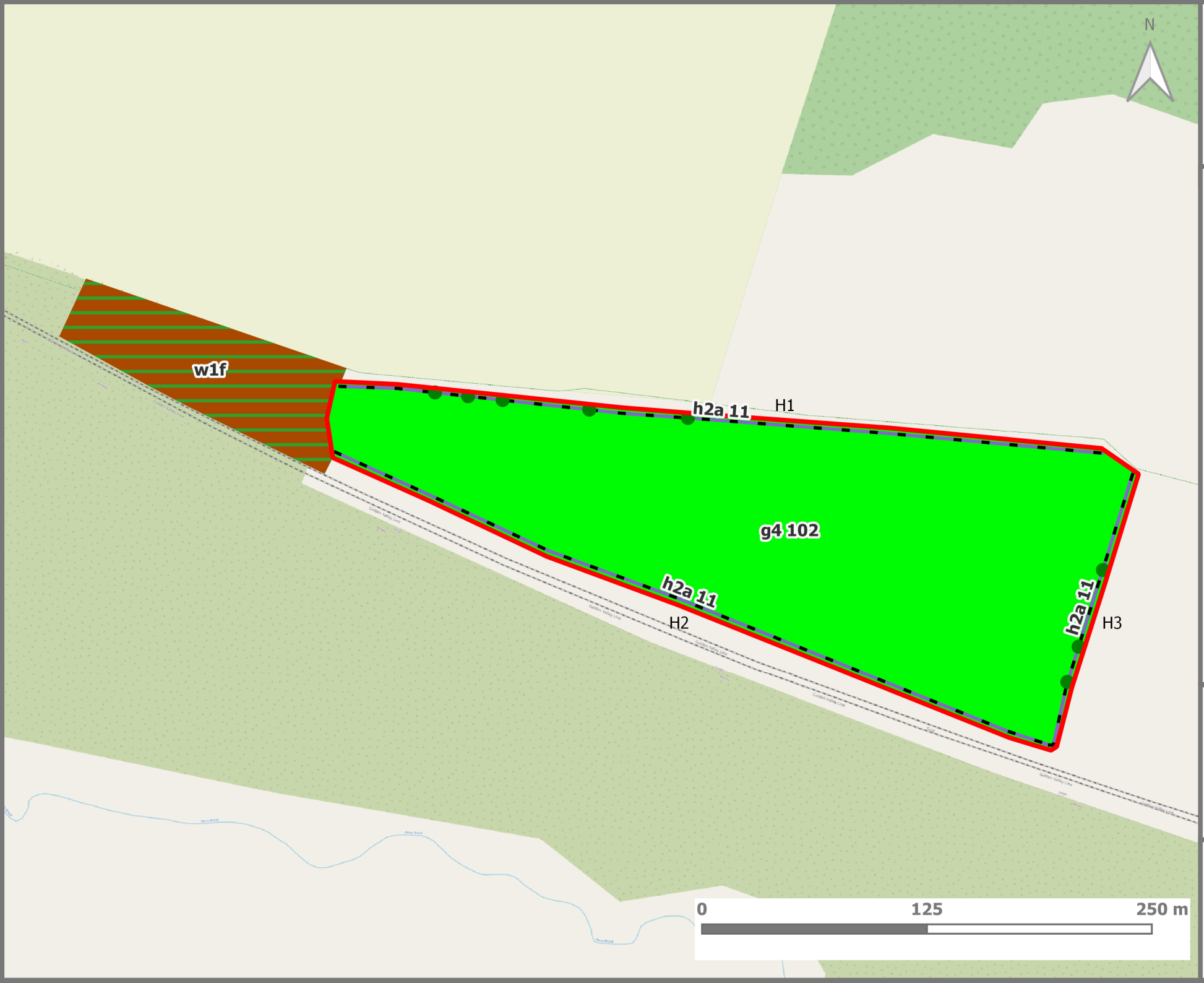

Figure 1 -
Site Location Map

Land at Gryphon Lodge Farm,
Minety,
Wiltshire,
SN6 6RQ

- Site boundary
- h2a - hedgerow (priority habitat)
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland

Secondary Codes

11 - Hedgerow with trees
102 - Sheep grazed

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Date:	30/10/2023
Drawn by:	Joseph Wilkie
Checked by:	Robert Dunn

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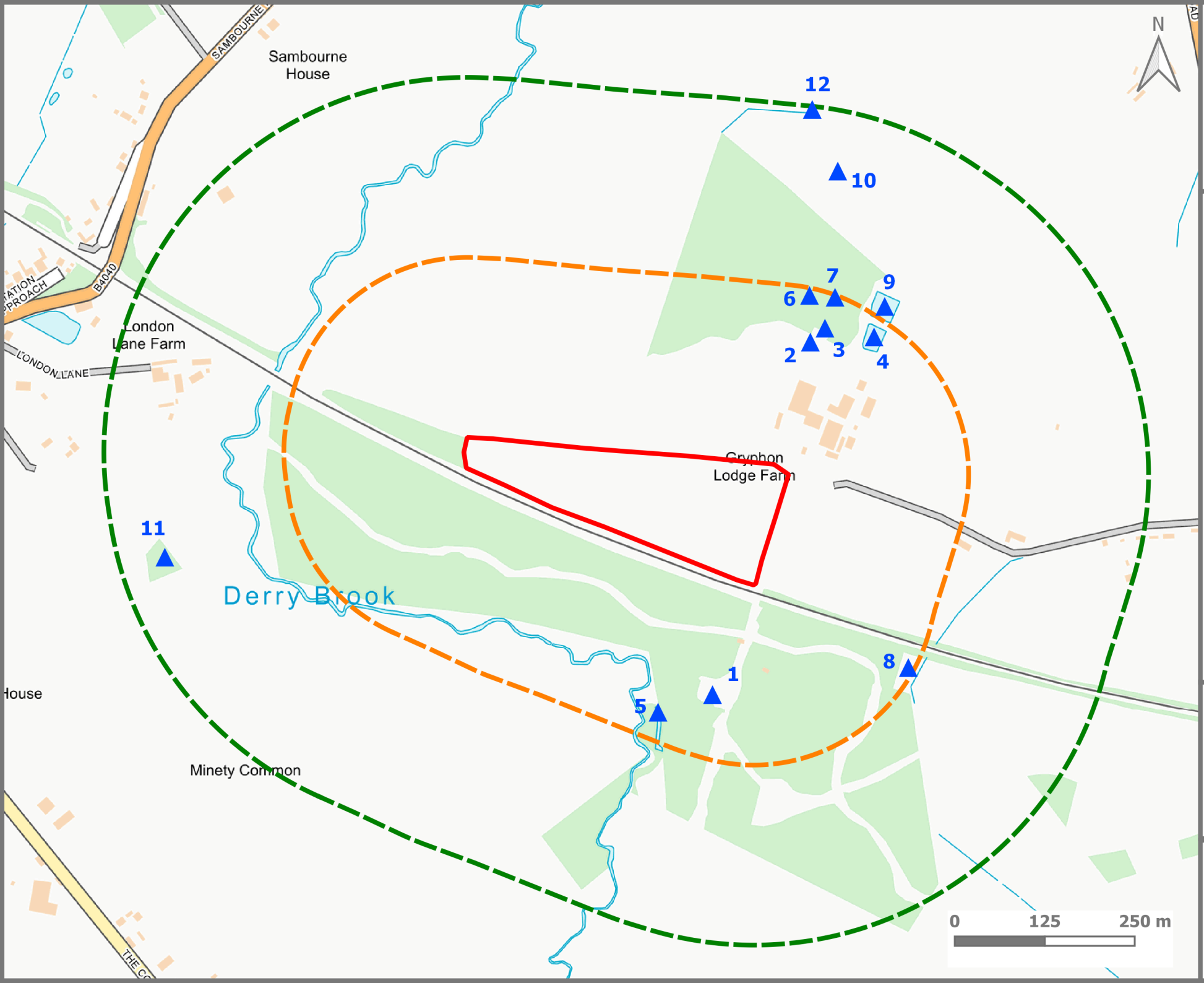

Figure 3 - Waterbody Location Map

Land at Gryphon Lodge Farm,
Minety,
Wiltshire,
SN6 6RQ

- Waterbody
- 250 m Buffer
- 500 m Buffer
- Site boundary

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Date:	04/10/2023
Drawn by:	Joseph Wilkie
Checked by:	Robert Dunn

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Appendix 1 – Proposed Plans

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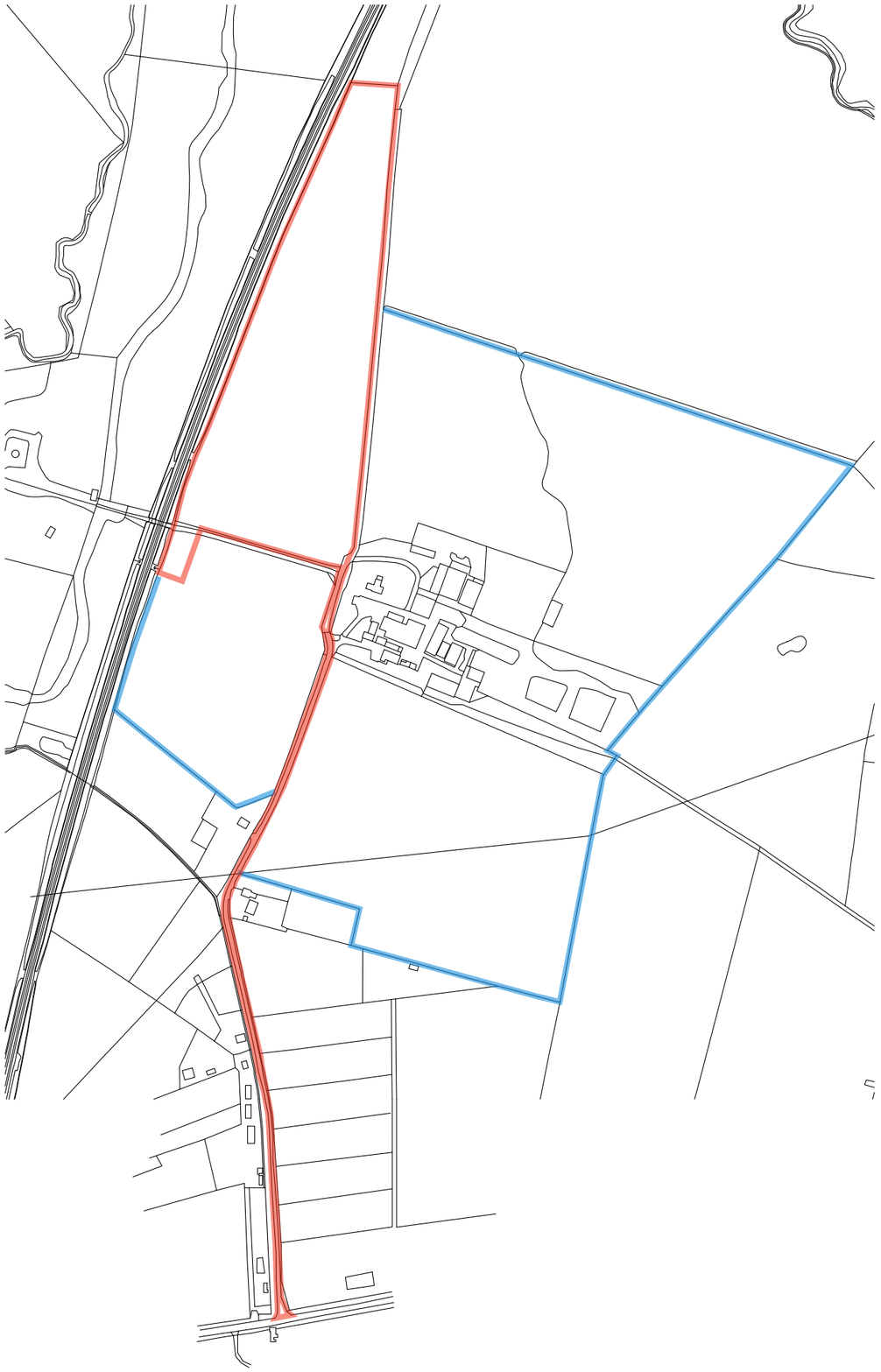

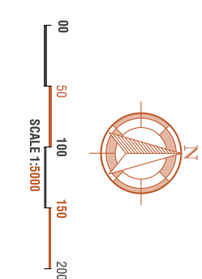

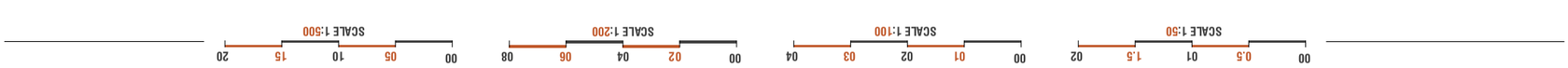

REVISION	DRAWING No.	PROJECT NO.	DESCRIPTION	DATE		
	SK.01	LDC.2291E PROJECT Gryphon Lodge Farm, SN6 6RQ	Location Plan SCALE: 1:5000 @ A3	November. 2023	The Studio, 82 Broadmead, Corsham, SN13 9AP	All dimensions to be checked on site. Drawing for planning puposes only - Not for construction. Reproduction of this drawing is prohibited without the consent in writing of Land Development & Planning Consultants Ltd. Site plans are reproduced from the Ordnace Survey sheets with the permission of The Controller of HM Stationery Office. Crown Copyright Reserved. Licence Number AL546755.

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REVISION

DRAWING No. **SK.02**

PROJECT NO.
LDC.2291E

PROJECT
Gryphon Lodge Farm,
SN6 6RQ

DESCRIPTION
Location Plan

SCALE:
1:2500 @ A3

DATE
November. 2023

The Studio,
82 Broadmead,
Corsham,
SN13 9AP

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SCALE 1:100 (00 01 02 03 04)

SCALE 1:200 (00 02 04 06 08)

SCALE 1:500 (00 05 10 15 20)

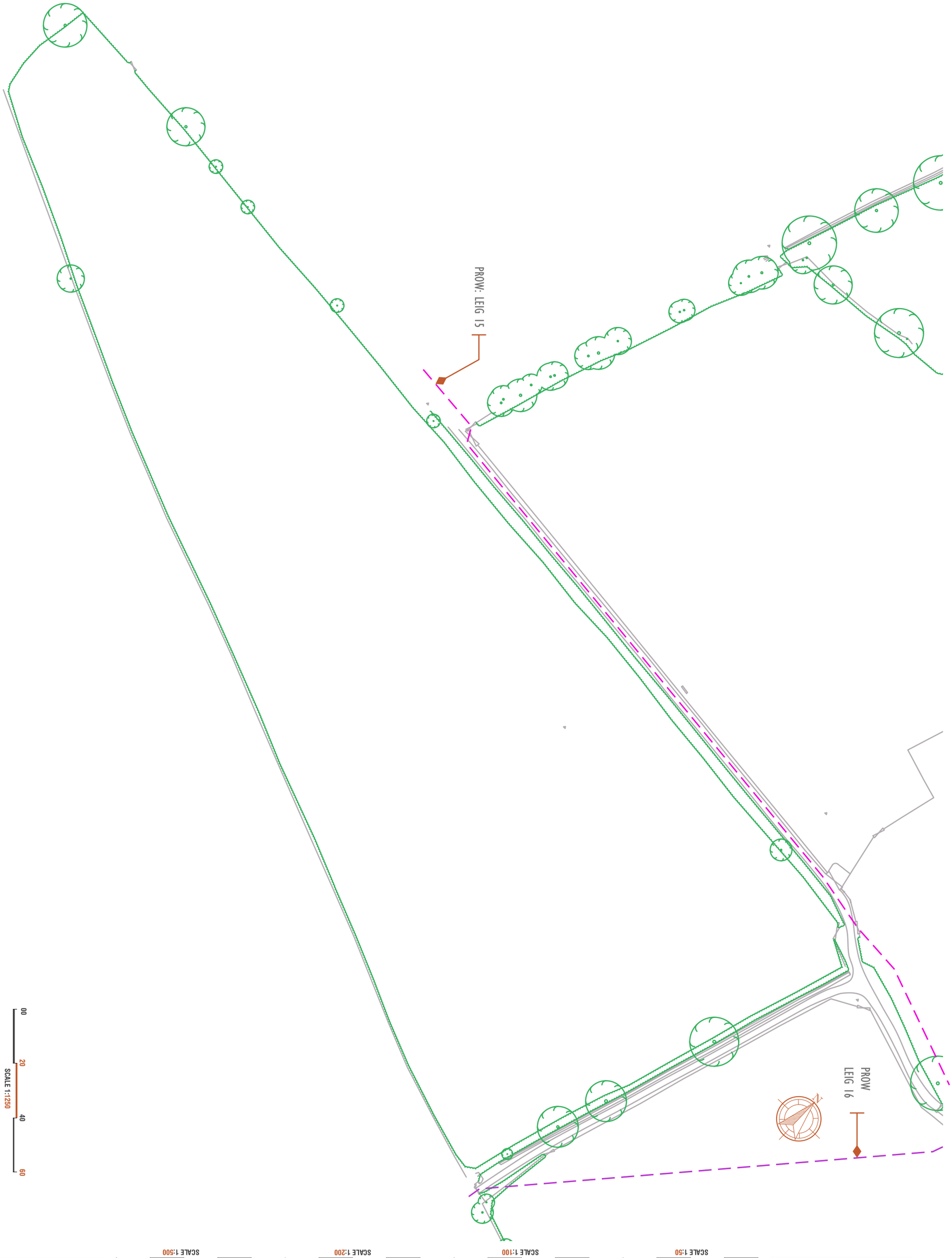
SCALE 1:2500 (00 40 80 120)

N

DUCHY RAG

TREFOIL

GRYPHON LODGE FARM



REVISION	DRAWING No.	PROJECT NO.	DESCRIPTION	DATE	
	SK.03	LDC.2291E	Site Plan	November. 2023	The Studio, 82 Broadmead, Corsham, SN13 9AP
		PROJECT Gryphon Lodge Farm, SN6 6RQ	SCALE: 1:1250 @ A3		

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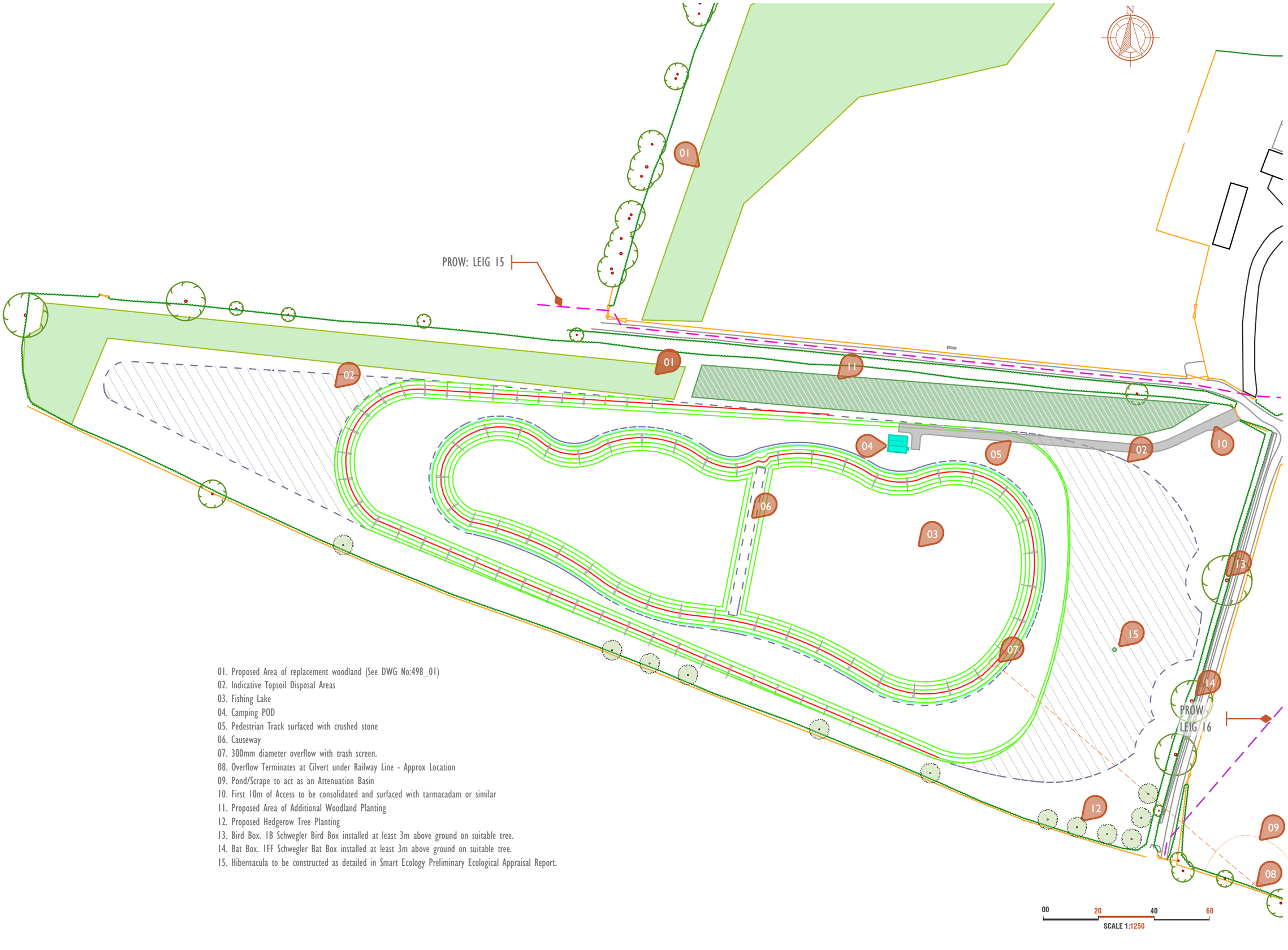

01. Proposed Area of replacement woodland (See DWG No:498_01)
02. Indicative Topsoil Disposal Areas
03. Fishing Lake
04. Camping POD
05. Pedestrian Track surfaced with crushed stone
06. Causeway
07. 300mm diameter overflow with trash screen.
08. Overflow Terminates at Cilvert under Railway Line - Approx Location
09. Pond/Scrape to act as an Attenuation Basin
10. First 10m of Access to be consolidated and surfaced with tarmacadam or similar
11. Proposed Area of Additional Woodland Planting
12. Proposed Hedgerow Tree Planting
13. Bird Box. 1B Schwegler Bird Box installed at least 3m above ground on suitable tree.
14. Bat Box. 1FF Schwegler Bat Box installed at least 3m above ground on suitable tree.
15. Hibernacula to be constructed as detailed in Smart Ecology Preliminary Ecological Appraisal Report.

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The Studio,
82 Broadmead,
Corsham,
SN13 9AP

DATE
November. 2023

DESCRIPTION
Proposed Site Plan

SCALE:
1:1250 @ A3

PROJECT NO.
LDC.2291E

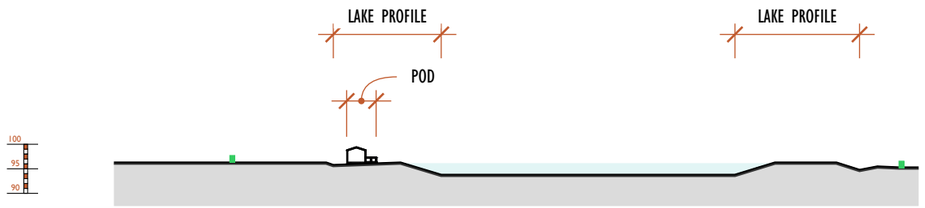
PROJECT
Gryphon Lodge Farm,
SN6 6RQ

DRAWING No.
SK.04

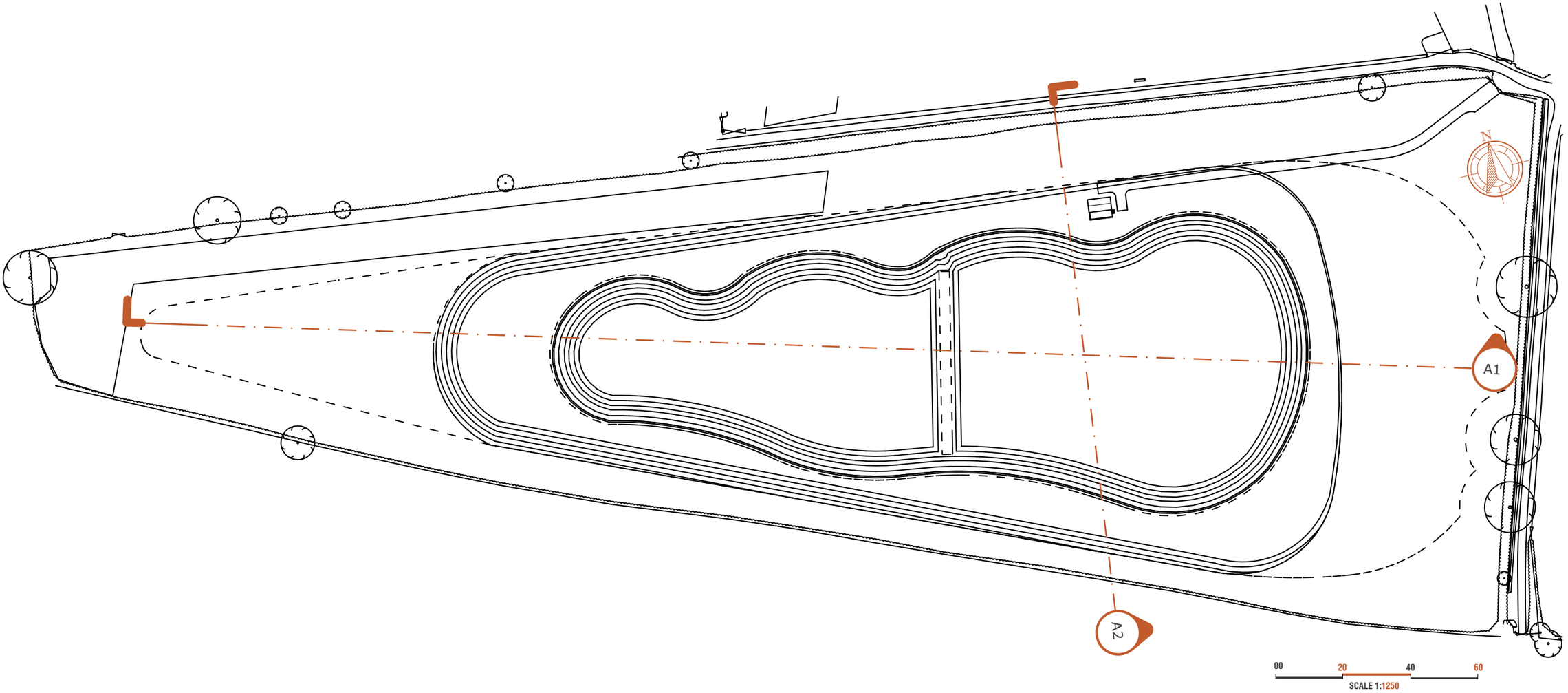
REVISION



SECTION A1



SECTION A2



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The Studio,
82 Broadmead,
Corsham,
SN13 9AP

DATE
November. 2023

DESCRIPTION
Indicative Sections

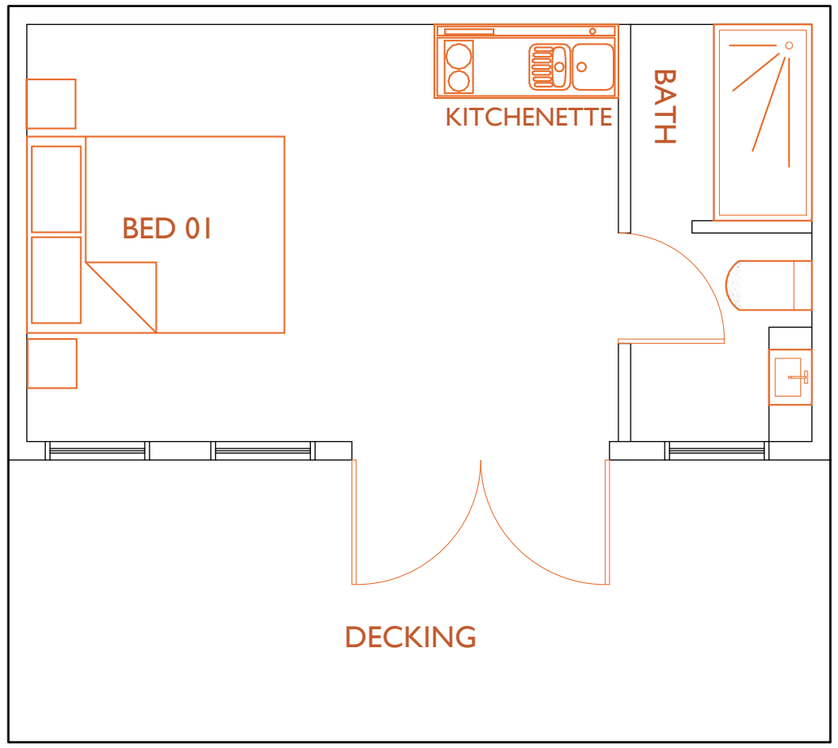
SCALE:
1:1250 @ A3

PROJECT NO.
LDC.2291E

PROJECT
Gryphon Lodge Farm,
SN6 6RQ

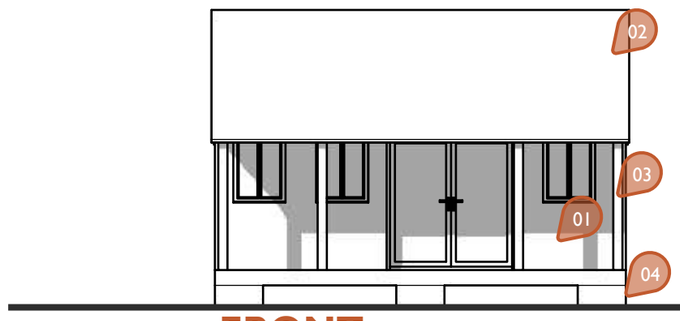
DRAWING No.
SK.05

REVISION

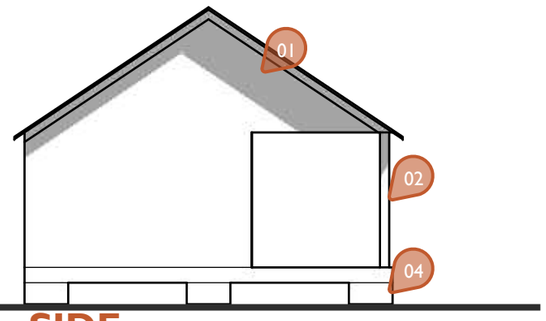


PLAN 1:50

01. Shiplap Cladding
02. Galvanised Roof Sheeting - Olive Green
03. Timber Post
04. Concrete Blocks



FRONT



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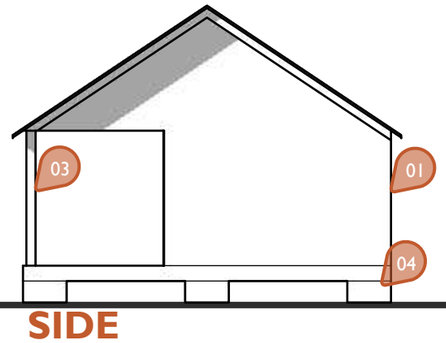

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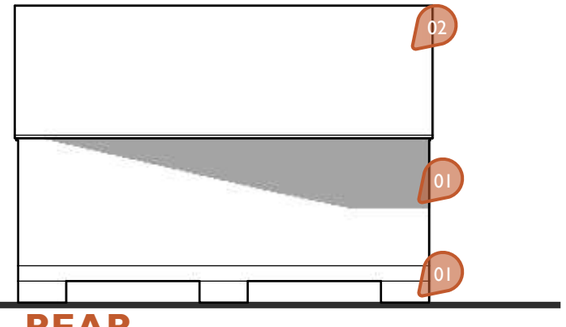

REAR

SCALE 1:50 — 00 0.5 01 1.5 02

SCALE 1:100 — 00 01 02 03 04

SCALE 1:200 — 00 02 04 06 08

SCALE 1:500 — 00 05 10 15 20

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82 Broadmead,
Corsham,
SN13 9AP

DATE
November. 2023

DESCRIPTION
Camping Pod Details

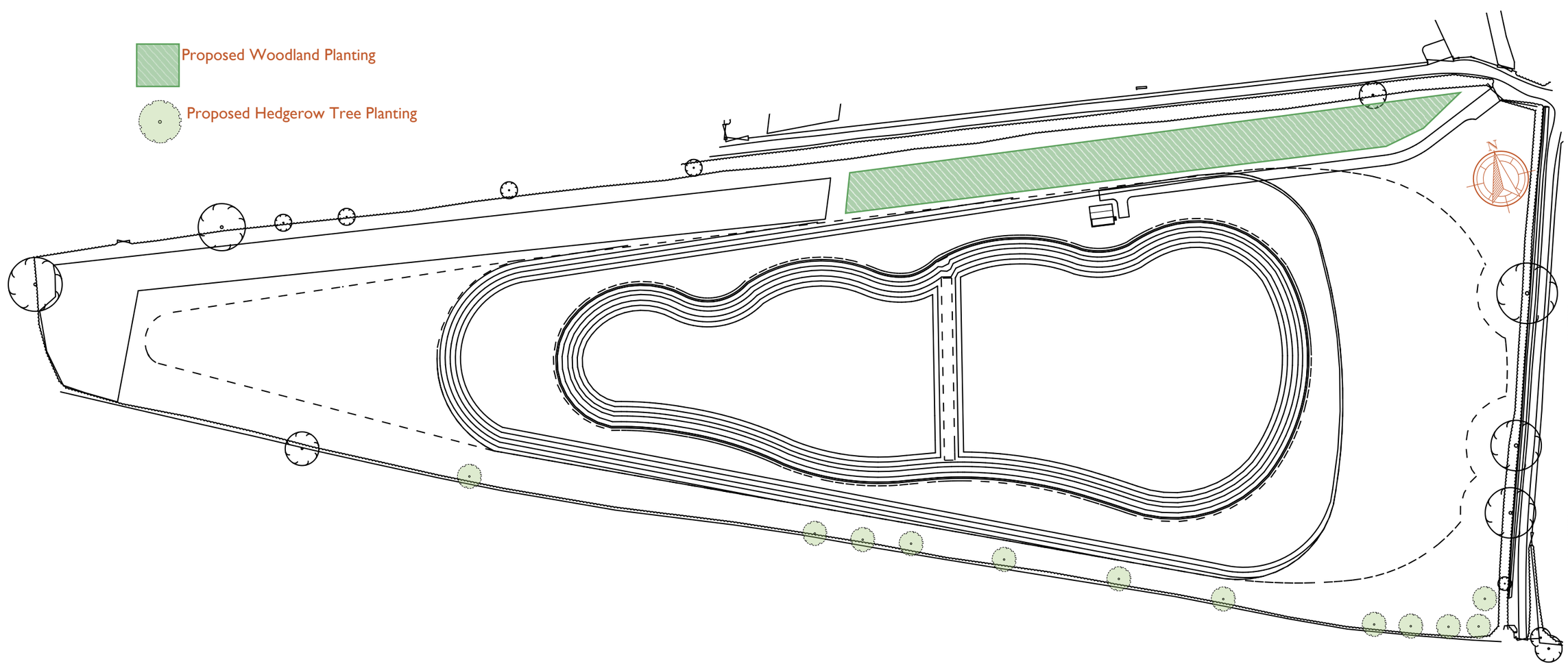
SCALE:
1:100 & 1:50 @ A3

PROJECT NO.
LDC.2291E

PROJECT
Gryphon Lodge Farm,
SN6 6RQ

DRAWING No.
SK.06

REVISION



All planting should be carried out in accordance with BS4428:1989, Code of practice for general landscape operations (excluding hard surfaces) & BS8545:2014 Trees: from nursery to independence in the landscape.

Trees to be planted between November and March. Plant to a minimum depth of 400mm and width of 600mm, ensuring that the root collar of the plant is level with the surface of the ground when completed. All plants should be well heeled in after planting and watered in during dry weather. If supplied as bare root specimens, ensure that the roots do not dry out by keeping them under a moist cloth or in a bucket of water during planting. Avoid planting in very cold or wet weather.

All new planting shall be carried out in first available season following completion of the development, any plants which within a period of 5 years, die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the local planning authority.

Protect the plants from damage by wild animals and stock with the use of spiral tree guards or rabbit netting to be removed after 3 – 5 years when the plants are well established.

In first year after planting spot weed with non-selective herbicide in mid-May, mid-July and August. In subsequent two years treat with Propyzamide herbicide granules during October – January period.

Woodland Planting:
Total Planting area = 2400m^2

Plants to be a random mix of Oak (60%), Hazel (10%), Hawthorn (10%), Field Maple (20%).
All plants to sourced as whips at a height of 60 - 90cm.

Hedgerow Tree Planting:
Total Planting: No11 Trees

Plants to be a random mix Ash (30%), Birch (30%), Field Maple (30%), Willow (10%).
All plants to sourced as whips at a height of 60 - 90cm.

SCALE 1:50 0 0.5 1 1.5 2
SCALE 1:100 0 1 2 3 4
SCALE 1:200 0 2 4 6 8
SCALE 1:500 0 5 10 15 20

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The Studio,
82 Broadmead,
Corsham,
SN13 9AP

DATE
November. 2023

DESCRIPTION
Landscaping Plan

SCALE:
1:1250 @ A3

PROJECT NO.
LDC.2291E

PROJECT
Gryphon Lodge Farm,
SN6 6RQ

DRAWING No.
SK.07

REVISION

Appendix 2 – HSI Data

Waterbody	1	**Survey by**	Joseph Wilkie
Grid Reference	SU 04320 90024	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 575	1.00	-
Pond drying	Rarely	1.00	-
Water quality	Moderate	0.67	Inaccessible, precautionary value given.
Shade (%)	10	1.00	-
Waterfowl	Minor	0.67	Few signs of impacts.
Fish	Possible	0.67	None noted but suitable conditions present.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	80	1.00	-
HSI Score		**0.85**	**EXCELLENT**
Photograph			

Waterbody	2	**Survey by**	Robert Dunn
Grid Reference	SU 04457 90506	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 90	0.18	-
Pond drying	Rarely	1.00	-
Water quality	Good	1.00	Invertebrates associated with good water quality present, including damselfly larvae.
Shade (%)	0	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Absent	1.00	None seen.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	50	0.81	-
HSI Score		**0.79**	**GOOD**
Photograph			

Waterbody	3	**Survey by**	Robert Dunn
Grid Reference	SU 04479 90530	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 450	0.90	-
Pond drying	Never	0.90	-
Water quality	Poor	0.33	Stocked fishing pond.
Shade (%)	30	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Major	0.01	Stocked with fish.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	20	0.51	-
HSI Score		**0.50**	**POOR**
Photograph			

Waterbody	4	**Survey by**	Robert Dunn
Grid Reference	SU 04559 9056	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 1050	0.94	-
Pond drying	Never	0.90	-
Water quality	Poor	0.33	Stocked fishing pond.
Shade (%)	0	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Major	0.01	Stocked with fish.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	20	0.51	-
HSI Score		**0.53**	**BELOW AVERAGE**
Photograph			

Waterbody	6	**Survey by**	Robert Dunn
Grid Reference	SU 04452 90579	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 1120	0.93	-
Pond drying	Never	0.90	-
Water quality	Poor	0.33	Stocked fishing pond.
Shade (%)	0	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Major	0.01	Stocked with fish.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	5	0.36	-
HSI Score		**0.48**	**POOR**
Photograph			

Waterbody	7	**Survey by**	Robert Dunn
Grid Reference	SU 04494 90572	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 25	0.05	-
Pond drying	Rarely	1.00	Water overflow from adjoining Waterbody 6 feeds into pond.
Water quality	Good	1.00	Invertebrates associated with good water quality present, including dragonfly larvae.
Shade (%)	30	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Absent	1.00	None seen.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	80	1.00	-
HSI Score		**0.71**	**GOOD**
Photograph			

Waterbody	9	**Survey by**	Robert Dunn
Grid Reference	SU 0454 9051	**Survey date**	21/08/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 800	0.98	-
Pond drying	Never	0.90	-
Water quality	Poor	0.33	Stocked fishing pond.
Shade (%)	0	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Major	0.01	Stocked with fish.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	80	1.00	-
HSI Score		**0.54**	**BELOW AVERAGE**
Photograph			

Appendix 3 – Reasonable Avoidance Measures

Indicative Reasonable Avoidance Measures which would be implemented during works if the district level licensing scheme is joined (subject to any requirements from Natural England) are provided in this Appendix.

No site clearance must take place until the further required surveys for great crested newts have been carried out or the district level licensing scheme has been joined.

Site Clearance

Any amphibians (other than great crested newts) and reptiles found during site clearance and works must be carefully moved outside of the works area using gloved hands or a suitable container.

If a great crested newt is found at any time during works, then work must stop immediately, and the ecologist will provide further advice. If an ecologist is not present then an ecologist must be immediately contacted. A guide to newt identification is provided at the end of these RAMs.

Timing

The clearance/cutting of grassland must be undertaken during the amphibian and reptile active season (i.e. April to September inclusive) and in suitable weather (i.e. temperature between 9°C and 18°C, calm, and no precipitation) to ensure that animals are active and can readily move away from work areas.

Vegetation Cut

Clearance/cutting of grassland must be undertaken using the following phased approach. Vegetation must be strimmed or brush cut and all cuttings raked and removed from the clearance area on the same day.

- Day 1 – cut vegetation to a height of 150 mm.
- Day 2 – cut vegetation to a height of 75 mm.
- Day 3 – cut vegetation to a height of 30 mm.

Cutting must start from the centre towards the site boundaries to encourage any animals present to move out of the development area into surrounding habitats. After the vegetation has been cut it must be kept short to deter animals from re-entering the area.

Construction

During construction, any building material must be stored on pallets or hardstanding to deter amphibians and reptiles from sheltering underneath. All waste must be stored in skips or containers and not in piles on the ground.

All excavations must be covered overnight, or a ramp installed with an angle no steeper than 40 degrees, to enable animals to escape. Any pipework must be capped overnight. Excavations must be checked every morning to ensure there are no trapped animals; any animals present must be moved outside of the works area by gloved hand or using a suitable container. **However, if a great crested newt is found then work must stop immediately, and an ecologist contacted.**

Newt Identification Guide (source: Amphibian and Reptile Conservation Trust)

Smooth newt

Grows to about 10 cm. Both sexes have orange or yellow belly stripe, with rounded black spots. Male has undulating crest running from head to tail tip.







A widespread species which breeds in a variety of water bodies. Often found in garden ponds.

After the 'tadpole' stage, young newts live on land. Most likely to be found from late summer to autumn as they disperse from ponds.

Palmate newt

Grows to 9 cm. Breeding male has ridge running along back, rather than a crest. Dark, webbed hind feet, and tail ends in filament.







There are two pale coloured nodules on the underside of the hind feet of female palmate newts.







Palmate Smooth

Throat of palmate newt has no pigment (looks pink). Throat of smooth newt is off-white and usually spotted.

Female looks similar to smooth newt.

Great crested newt

Grows to 16 cm, but usually smaller. Crest in male has break at base of tail. Silvery-white stripe towards rear of tail conspicuous.

Both sexes have rough, granular skins and yellow/ orange bellies with irregular black spots.





Juveniles look like smaller versions of the female and may live on land or in the water.

Strictly protected species, requiring a licence to handle or disturb.