The Rose Toop Boatyard, Wargrave Road, Remenham, Berkshire RG9 3JD

Ecological Impact Assessment & Biodiversity Net Gain Assessment

October 2025

on behalf of **The Rose Toop Collection**

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Client	The Rose Toop Collection *care of* Tapp Associates
Job name	The Rose Toop Boatyard, Wargrave Road, Remenham, Berkshire RG9 3JD
Survey dates	27th October 2022, photographic evidence (1st to 6th August 2025)
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Report title	Ecological Impact Assessment & Biodiversity Net Gain Assessment
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	Signed	**Name**	**Position**	**Date**
Prepared by	[redacted]	Reuben Hayden *MSc ACIEEM*	Senior Ecologist	22/10/2025
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Report Contents

1 Executive Summary

Site Details	The Rose Toop Boatyard is a boatyard located on Wargrave Road in Remenham, near the town of Henley on Thames, in Berkshire. The approximate grid reference for the site is SU 767 822.
Proposals	There is a proposal to construct an additional driveway within the site.
Methodology	An extended UKHab Habitat Survey was undertaken on 27th October 2022 by Reuben Hayden *MSc ACIEEM*. Photo evidence of the site in its current form has been provided between 1st to 6th August 2025. A Biodiversity Impact Assessment was conducted to calculate the potential impact of the proposed development (using the Statutory Biodiversity Metric), and to assess biodiversity net gain.
Results	• The site currently comprises an area of artificial unvegetated; unsealed surface, however, prior to construction works (in 2025) this area comprised modified grassland. • All habitats are considered to be of negligible to site ecological value. • There are no habitats of 'principal importance' as listed within Section 41 of the NERC Act 2006.
Impact Assessment	• The proposals are unlikely to result in a significant ecological impact beyond the site level. • Proposals will result in the loss of modified grassland (currently artificial unvegetated; unsealed surface). This habitat is of site ecological value. • There are no foreseeable direct impacts on bats, nesting birds, amphibians & reptiles, roosting bats, badgers, hedgehogs, water voles, otters or kingfishers. • Indirect impacts on commuting/foraging bats and otter dispersal may result from the increase of external lighting. • Based on the proposal plans and using the Statutory Biodiversity Metric, the result of the calculation is as follows: ○ **-0.06 Habitat Units, -100.00% decrease**
Recommendations	No further surveys are considered necessary.

	Retained trees (bordering the site boundary) and hedgerows will be protected through the establishment of appropriate root protection zones. Measures will be put in place to avoid potential impacts on the River Thames resulting from sediment, material etc. entering the watercourse. Recommendations are made with biodiversity off-setting to secure a net gain for biodiversity and satisfy the Environment Act 2021.

2 Introduction

2.1 Site Description & Context

The Rose Toop Boatyard, referred to as 'the site' for the purposes of this report, is a boatyard located on Wargrave Road in Remenham, near the town of Henley on Thames, in Berkshire RG9 3JD. The approximate grid reference for the site is SU 767 822.

The site currently comprises an area of artificial unvegetated; unsealed surface, however, prior to construction works (in 2025) this area comprised modified grassland. The surrounding ground has been well compacted after many years use for the storage of boats and trailers and there is no active landscaping in the area, but patchy grass grows when it is not covered with boats.

The Rose Toop Boatyard is set in a semi-rural location, with built development extending along the banks of the River Thames to the north-west and south-east. North and east of the site the land is characterised by a mixture of woodland, parkland and pasture, along with some scattered development. West of the site, across the river, lies the town of Henley on Thames, with the town centre being located approximately 600m to the north-west. Immediately opposite the site and across the river is Marsh Meadows Park, which serves as a recreational area for the town.

A number of non-statutory sites lie within 1km of the site, including Branford Woodlands Local Wildlife Site (LWS), Remenham Wood LWS, Park Place School LWS and Remenham Chalk Grasslands LWS. These sites contain habitats such as lowland calcareous grassland, ancient woodland and chalk tunnels, which have been found to be used by hibernating bats.

Photographs of the site are presented in Appendix 1. Appendix 2 illustrates the location of the site and provides an aerial photograph of the site within the surrounding landscape.

2.2 Background

Full planning consent was granted (application number 220987) for *"the proposed ground floor and first extensions to the existing buildings. To provide additional workshop, gallery and mezzanine level for dry storage along with recreational floorspace. Recladding of external walls with vertical timber boards. Creation of a river cutting to provide additional /replacement moorings."* on 16th March 2023. The planning application was supported by an Ecological Impact Assessment undertaken by Windrush Ecology in 2022 (Windrush Ecology, 2022).

Since planning permission was granted, the site has undergone construction to alter the site into the proposed Rose Toop Boatyard as per the plans attached as part of the planning application.

It is of note, that as part of the granted planning application, the proposed site layout provided a Biodiversity Net Gain **increase of 0.30 habitat units (+14.28%),** an **increase of 0.68 hedgerow units (+84.24%)** and an **increase of 0.11 (+23.60%) river units.**

The proposed layout for application number 220987 did not, however, include the creation of an additional driveway (as included as part of this current planning application).

2.3 Proposals

There is a proposal to construct an additional driveway within the site.

It is of note that these works have been completed during 1st to 6th August 2025.

A proposal plan is presented in Appendix 3.

2.4 Aims of Study

The aims of this study are to describe and evaluate the habitats present within the site and to assess the potential for the site to support protected and notable species. The habitats are evaluated, and the report discusses the potential impacts of the proposed development on the ecology of the site and protected/notable species (Ecological Impact Assessment). Recommendations are made for appropriate mitigation & compensation measures in light of the impact assessment.

A further aim of this study is to assess and quantify the biodiversity value of the site and to assess and calculate the impacts of the proposed development on the site's biodiversity value, given as a net loss, no net change or gain in biodiversity units, in line with the National Planning Policy Framework (NPPF) and Environment Act 2021.

This report aims to:

- Establish the total number of baseline biodiversity units for the site prior to the development taking place.
- Establish the total number of biodiversity units which will be created, retained and/or enhanced under landscape and ecological mitigation proposals for the site of; and
- Determine whether the proposed development scheme will result in a net loss, no net loss or a net gain for biodiversity (Biodiversity Net Gain Assessment).

2.5 Biodiversity Statement

2.5.1 *Exemptions*

The proposals are not exempt from the requirement for Biodiversity Net Gain.

The planning application is therefore subject to Statutory Biodiversity Net Gain as defined under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

The proposals must deliver a Biodiversity Net Gain of at least +10%.

2.5.2 *Pre-development Biodiversity Value of On-site Habitats*

The pre-development biodiversity value of the site is as follows:

- 0.06 Habitat Units

Watercourse Units are not applicable to this site.

2.5.3 *Date the On-site Pre-development Biodiversity Value was Calculated*

Date of application.

The baseline survey was undertaken on 27th October 2022 with updated photo evidence provided from 1st to 6th August 2025.

2.5.4 *Version of the Biodiversity Metric*

Statutory Biodiversity Metric.

2.5.5 *Version of the Biodiversity Metric Publication Date*

3rd July 2025.

2.5.6 *Supporting Documentation*

I. Biodiversity Metric calculation – provided in Excel format as Appendix 6 to this report. Results are as follows:

- **-0.06 Habitat Units, -100.00% decrease**

II. Onsite irreplaceable habitats – not applicable
III. Onsite habitats existing on the date of the application for planning permission

Table 1. UKHab habitats existing on the date of the application for planning permission.

Primary Code	Secondary Code	Description
u1b6	-	Developed land; sealed surface (other developed land)
g4	-	Modified grassland (this area is currently artificial unvegetated; unsealed surface, as the modified grassland has been cleared)

2.5.7 *Loss of On-site Habitats*

It is considered that there has been loss of on-site habitats.

Prior to construction works/clearance in August 2025, the site was surveyed for its habitats in 2022. This survey confirmed that the area that has been constructed into a new driveway comprised modified grassland (see Figure 1).

Figure 1. Modified grassland in 2022, prior to clearance.

Does the pre-development biodiversity value and date used above factor in the loss of any onsite habitat because of activities carried out before the submission of this application? – yes.

The condition assessment within the Biodiversity Net Gain Assessment takes into account the habitats that would have been present on 30th January 2020, as stated within Schedule 14 of the Environment Act 2021. In January 2020, habitats of developed land; sealed surface and modified grassland were present within the site (survey data from 2022). The modified grassland has now been cleared as of August 2025.

2.5.8 *Phased Development*

The development is not phased.

2.5.9 *Irreplaceable Habitats*

There are no irreplaceable habitats within the site.

3 Methodology

3.1 Desk Study

The Thames Valley Environmental Records Centre (TVERC) was contacted in July 2021 to collate records that it holds for protected/notable species and non-statutory sites of nature conservation importance within a 1km radius of the site.

The Multi-Agency Geographic Information for the Countryside (www.magic.gov.uk) website was searched for information regarding internationally protected sites (e.g. Special Areas of Conservation) within 5km of the survey area and statutory sites of nature conservation importance (e.g. Sites of Special Scientific Interest) within a 1km radius of the site. Other Internet resources interrogated as part of the desk study include:

- Bing Maps - www.bing.com/maps
- Google Earth - www.earth.google.co.uk
- Google Maps - www.google.co.uk/maps

Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 was also consulted to gather information pertaining to priority habitats and species for conservation action at the national level.

Aerial photography interpretation is used to place the site into an ecological context and to provide information on the nature of the habitats beyond the site boundary. The information gathered is used to provide a baseline to the habitat assessment.

3.2 Field Surveys

3.2.1 *Personnel*

The field surveys were undertaken by Reuben Hayden *MSc ACIEEM* on 27th October 2022.

Reuben Hayden *MSc ACIEEM* is a Senior Ecologist of Windrush Ecology Ltd. Mr Hayden has an undergraduate degree in Wildlife Ecology & Conservation Science from the University of West of England and a master's degree in Species Identification & Survey Skills from the University of Reading and has been working as a professional ecological consultant since 2019.

Mr Hayden holds licences from Natural England to survey for bats and great crested newts within all counties of England (WML-CL17-Level 1 2021-54302-CLS-CLS & WML-CL08-Level 1 2021-54013-CLS-CLS) and has over 6 years of experience in undertaking bat surveys.

3.2.2 *Extended UKHab Habitat Survey (2022)*

An extended UKHab Habitat Survey was undertaken to determine the type and overall status of habitats within the site.

The MAGIC website and Google Earth Pro satellite imagery were also used to determine whether there are known or possible locations for rare and/or habitats of high nature conservation importance.

Field survey maps were prepared in QGIS and printed off for use in the field. Survey sheets were printed at a scale relevant to the scope and extent of the survey. They are between 1:10,000 and 1:200 scale.

The UKHab system comprises a five-level Primary Habitat Hierarchy and a list of Secondary Codes, the latter is divided into Essential codes and Additional Codes. It is mandatory that each recorded habitat parcel (which can be a point, line or polygon using geospatial vector data terminology) is allocated a single Primary Habitat Code and to record the presence of all Essential Secondary Code features associated with that habitat parcel. Additional Secondary Codes can also be associated with habitat parcels, where it is relevant to the whole parcel. The UKHab system recommends that up to six Secondary Codes can be allocated to a single habitat parcel.

The UKHab system includes all habitat types identified in the UK, irrespective of scale and geographic range, including all habitats listed under Section 41 of the NERC Act 2006 and all Habitats Directive Annex 1 habitats recorded in the UK. Where possible, synonyms for UKHab habitats in other major habitat classifications are provided in the definitions.

The UK Habitat Classification Version 2.0 has been used (UKHab Ltd, 2023), with the use of Level 3 to 5 Primary Habitats and Secondary Codes. Primary Habitats and Secondary Codes follow the UKHab definitions listed in the aforementioned document. The Secondary Codes selected are appropriate to the site and habitats recorded.

Target notes were also prepared on features of particular ecological interest, and an assessment was made of the site's potential to support protected and notable species (such as species listed under Section 41 of the NERC Act 2006) as well as invasive species (listed on Schedule 9 of the Wildlife & Countryside Act 1981).

3.2.2.1 Summarised UKHab Metadata

In line with the UKHab User Manual, Table 2 details the Survey Metadata associated with the UKHab survey.

Table 2. Survey Metadata associated with the UKHab survey.

Metadata Heading	Site Information
Scope and purpose of the survey	Baseline habitat survey to inform EcIA
Area surveyed	5550m^2
Edition of UKHab used	Version 2.0
The Minium Mapping Unit	Fine scale - 25m^2 and 5m length
The Level of UKHab Primary Hierarchy used	Levels 3 to 5

Metadata Heading	Site Information
Additional attributes recorded	Habitat condition and habitat management information where relevant
Map projection and units	Ordnance Survey National Grid reference system (OSGB)
Year of survey	2022
Organisation and individual undertaking the survey	Windrush Ecology Ltd, Reuben Hayden *MSc ACIEEM*
References for any existing datasets that have been used	TVERC, The MAGIC website

3.2.3 *Update Survey Data (2025)*

Photo evidence of the current site layout was provided to Windrush Ecology from 1st to 6th August 2025. This ascertained that the area of modified grassland (present in 2022) has been removed, and the additional driveway has been constructed.

3.3 Ecological Impact Assessment

The ecological appraisal of the proposed development is undertaken in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* version 1.3 (CIEEM, 2018).

The following principles underpin Ecological Impact Assessments EcIA:

- Avoidance: seek options that avoid harm to ecological features (for example, by locating on an alternative site).
- Mitigation: negative effects should be avoided or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.
- Compensation: where there are significant residual negative ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.
- Enhancement: seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

3.3.1 *Determining Important Ecological Features & Value*

The CIEEM guidelines recognise one of the key challenges in (EcIA) is to decide which ecological features (habitats, species, ecosystem and their functions/processes) are important and should be subject to detailed assessment. Such ecological features are those that are considered to be important and potentially affected by the project. It is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable.

However, efforts should still be made to safeguard biodiversity in its entirety, as emphasised by the Convention on Biological Diversity and developed in the EU Biodiversity Strategy 2020. The EU Strategy and national policy documents emphasise the need to achieve no net loss of biodiversity and enhancement of biodiversity.

The EcIA should demonstrate how a proposal will comply with statutory requirements and policy objectives for biodiversity.

The importance of an ecological feature should be considered within a defined geographical context. In this report, habitats are assigned to a value relating to their geographic frame of reference, using the following scale:

- International
- UK
- National (England)
- Regional (Southeast)
- County (Berkshire)
- District (Wokingham)
- Local or parish (Remenham)
- Immediate zone of influence of the site (Site)
- Negligible

Regarding protected and notable species, an assessment of habitat suitability and potential presence of species has been undertaken given the results of the desk study and field surveys.

3.3.2 *Characterising Ecological Impacts*

When describing ecological impacts and effects, reference should be made to the following characteristics as required:

- Positive or negative
- Extent
- Magnitude
- Duration
- Frequency and timing
- Reversibility

The assessment only needs to describe those characteristics relevant to understanding the ecological effect of the impacts and determining its significance.

3.3.3 *Determining Ecologically Significant Effects*

The CIEEM guidelines define an 'ecologically significant effect' as an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Significant effects should be qualified with reference to an appropriate geographic scale. However, the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important.

Significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution). A significant effect is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project.

Regarding protected and notable species, an assessment of habitat suitability and potential presence of species has been undertaken given the results of the desk study and field surveys.

3.4 Biodiversity Net Gain Assessment

A Biodiversity Net Gain assessment was conducted using the Statutory Biodiversity Metric, published by Department for Environment, Food & Rural Affairs (July 2025), to calculate the impact of the proposed development on the ecological value of the site. The calculation ascertains whether the

proposals are likely to achieve a net gain in biodiversity, calculated as biodiversity (habitat, hedgerow and watercourse) units and percentage biodiversity (habitat, hedgerow and watercourse) units.

To effectively assess the impact of the proposals the habitats within the site were classified according to the habitat types given in the UKHab classification system (UKHab Ltd, 2023). Habitats were assessed for their condition and strategic significance according to the criteria given within the Statutory Biodiversity Metric User Guide and The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology (Version 1.0.2) (Department for Environment, Food & Rural Affairs, 2025) through onsite visits and the interrogation of internet resources including MAGIC (www.magic.gov.uk) and Google Earth (www.earth.google.co.uk).

The areas of given habitats in both their current state and the proposed development were mapped using on site data, satellite imagery and QGIS software, with the resulting areas inputted into the Statutory Biodiversity Metric alongside strategic significance classifiers.

A site visit was undertaken by a suitably qualified ecologist to determine the habitats present on site, their location, size, condition and connectivity. This survey was conducted by Reuben Hayden *MSc ACIEEM* on 27th October 2022 and updated photo evidence provided from 1st to 6th August 2025.

The principles of biodiversity net gain as set out in the Biodiversity Net Gain Good Practice Guidelines (CIEEM, IEMA & CIRIA, 2019) have been considered throughout this process as listed below:

- **Principle 1.** Apply the Mitigation Hierarchy
- **Principle 2.** Avoid losing biodiversity that cannot be offset by gains elsewhere
- **Principle 3.** Be inclusive and equitable
- **Principle 4.** Address risks
- **Principle 5.** Make a measurable Net Gain contribution
- **Principle 6.** Achieve the best outcomes for biodiversity
- **Principle 7.** Be additional
- **Principle 8.** Create a Net Gain legacy
- **Principle 9.** Optimise sustainability
- **Principle 10.** Be transparent

3.5 Limitations on Survey Data

There are considered to be no significant constraints on the survey data and all parts of the site could be accessed thoroughly and safely.

As with any survey undertaken on a certain date, the data presented within this report provide information at particular points in time and present a ‘snapshot’ of the ecological status of the site. Ecosystems and species behaviour/activity are dynamic and can change over time.

Whilst this report presents a characterisation and evaluation of habitat and species status at the time of the study, it should not be taken as an exhaustive representation of the ecological status of the site either at present or into the future.

It is also of note that the data search data is over 12 months old. This is not considered a limitation to the study, given that the habitats on site currently comprise hardstanding. The records of protected and notable species from the data search in 2022 are still considered relevant to the site and have been considered within the impact assessment.

4 Results

4.1 Ecological Context

4.1.1 *Sites of Nature Conservation Importance*

4.1.1.1 Statutory Sites

There are no internationally important sites, such as Special Areas of Conservation (SACs), within a 5km radius of the site.

There are no nationally important sites, such as Sites of Special Scientific Interest (SSSIs), located within a 1km radius of the site.

The site is located within a SSSIs Impact Risk Zone (IRZ) which includes the following categories:

- **Infrastructure:** Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.
- **Minerals, Oil and Gas:** Planning applications for quarries, including new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
- **Rural Non-Residential:** Large non-residential developments outside of existing settlements/urban areas where the footprint exceeds 1ha.
- **Rural Residential:** Any residential development of 100 or more units outside existing settlements/urban areas.
- **Air Pollution:** Any industrial/agricultural development that could cause AIR POLLUTION (including industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 200m² & manure stores > 250 tonnes).
- **Combustion:** General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.
- **Waste:** Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
- **Compost:** Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
- **Discharge:** Any discharge of water or liquid waste of more than 5m³/day that is discharged to ground (i.e. to seep away) or to surface water, such as a beck or stream.
- **Water Supply:** Large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is 1,000m² or more.

4.1.1.2 Non-statutory Sites

There are five non-statutory sites within a 1km radius of the site.

The site is not located within a Conservation Target Area (CTA) or Biodiversity Opportunity Area (BOA).

For a brief summary of the non-statutory sites refer to Table 3 below.

Table 3. Summary of non-statutory sites within a 1km radius of the site.

Designation	Name	Distance from Site (m)	Description
Local Wildlife Site (LWS)	Branfords Woodlands	265 E	Branfords Woodlands LWS is an area of long-established woodland located approximately 265m to the east of the site. Though not considered to be an ancient woodland, it has the typical appearance of semi-natural woodland with a canopy of semi-mature trees over hazel *Corylus avellana* coppice.
	Remenham Wood	480 N	Remenham Wood LWS is a site of ancient woodland located approximately 480m north of the site. Present within the woodland are stands of beech *Fagus sylvatica* with some oak *Quercus* spp., cherry *Prunus* sp. and ash *Fraxinus excelsior*. Hazel coppice is abundant in the understorey, with some areas having been underplanted with spruce *Picea* species. The ground flora is dominated by bluebell *Hyacinthoides non-scripta*, bramble *Rubus fruticosus* and bracken *Pteridium* species. A range of established woodland indicator species have been recorded within the site such as wood anemone *Anemone nemorosa*, woodruff *Galium odoratum*, slender St John's-wort *Hypericum pulchrum,* yellow archangel *Lamium galeobdolon* and wood millet *Millium effusum*.
	Remenham Chalk Grassland	650 N	Remenham Chalk Grassland LWS is located approximately 650m north of the site. This LWS is principally lowland calcareous grassland situated on the west-facing slope next to the Thames River Valley. It supports 20 plant species that are either indicators or typical of lowland calcareous grassland, including carline thistle *Carlina vulgaris*, common centaury *Centaurium erythraea*, common milkwort *Polygala vulgaris*, lesser scabious *Scabiosa columbaria*, mouse-ear hawkweed *Pilosella officinarum* and salad burnet *Sanguisorba minor*.
	Park Place School	685 E	Park Place School LWS is located approximately 685m east of the site and contains a variety of habitats including areas of woodland, a bank of chalk grassland, a small lake and ponds. Plants indicative of long-established woodland has been recorded within the LWS, including primrose *Primula vulgaris*, Solomon's-seal *Polygonatum x hybridum* and wood spurge *Euphorbia amygdaloides*. Four bat species have been recorded in association with chalk tunnels in the LWS, with these being known for form bat hibernaculum. The ponds on this site support great crested newts.
Conservation Target Area (CTA)	Chilterns Escarpment	260 E	A section of the Chilterns Escarpment CTA is present within 260m of the site boundary, to the east. This section of the escarpment is largely north-facing and includes some steep-sloped chalk valleys that run south in places. The habitats falling within the CTA include chalk grassland, woodland, wet woodland, fen and riverside grassland. Targets for the CTA include the restoration and re-creation of chalk grassland and woodland management.

Designation	Name	Distance from Site (m)	Description

4.2 Habitats

The UKHAB codes for the habitats within the site are presented within Table 4. A UKHab habitat plan can be seen in Appendix 4.

Table 4. UKHAB habitat codes for the site.

Primary Code	Secondary Codes	Description
u1b6	-	Developed land; sealed surface (other developed land)
g4	-	Modified grassland (this area is currently artificial unvegetated; unsealed surface, as the modified grassland has been cleared)

4.2.1 *Developed Land; Sealed Surface (other developed land)*

There are areas of other developed land within the site in the form of tarmacked roads.

Other developed land is considered to be of **negligible** ecological value.

4.2.2 *Artificial Unvegetated; Unsealed Surface (formerly modified grassland)*

The majority of the site currently comprises artificial unvegetated; unsealed surface, which is made up of a gravel driveway.

In 2022, when the previous habitat survey was undertaken, this area comprises modified grassland. A description of the habitat can be found below:

The area of modified grassland appears subject to regular mowing. At the time of survey, the majority of grassland present exhibited a sward height of 3-6cm. Sporadic patches of less recently mown sward were present beneath unmoved trailers, where the sward height was approximately 30cm in height.

All areas of grassland were highly verdant, being dominated by perennial ryegrass *Lolium perenne*, with common daisy *Bellis perennis* and broad-leaved plantain *Plantago major* also being abundant. Other accompanying herbs recorded less frequently include yarrow *Achillea millefolium*, creeping buttercup *Ranunculus repens*, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens*, nettle *Urtica dioica*, white dead nettle *Lamium album*, creeping thistle *Cirsium arvense*, common sow thistle *Sonchus oleraceus*, dandelion *Taraxacum officinale*, and silverweed *Potentilla anserina*.

The area of modified grassland does not meet the criteria for grassland habitats of ‘principal importance’, as listed within Section 41 of the NERC Act 2006.

The grassland is regularly mown, possess a low species diversity and are dominated by common and widespread species typical of lawns throughout lowland England.

The modified grassland is considered to be of **site** ecological value.

4.3 Species

The following sections summarise pertinent information on species gathered from the Local Records Centre, given the nature of the habitats that are present within the site. Records analysed are from 1995 onwards.

4.3.1 *Plants*

The data search returned 139 records pertaining to plants, with 34 different species having been recorded.

Species include 22 records of bluebell, dating from 1997 to 2010. Bluebell is an ancient woodland indicator species but can also be found in association with hedgerows. Other species recorded include 17 records of snake's head fritillary *Fritillaria meleagris*, five records of dwarf spurge *Euphorbia exigua*, three records of goldenrod *Solidago virgaurea*, two records of grape-hyacinth *Muscari neglectum* and three records of carline thistle. These records date from 1996 to 2018. In addition, there are individual records of chicory *Cichorium intybus*, field woundwort *Stachys arvensis*, heath speedwell *Veronica officinalis* and marsh ragwort *Senecio aquaticus*. The records for these plants date from 1997 to 2008.

No rare or scarce plants are present within the site.

4.3.2 *Reptiles*

The Records Centre holds 14 records of reptiles from within a 1km radius of the site.

The majority of records pertain to grass snake *Natrix helvetica*, all of which have been recorded on the far side of the River Thames; the nearest of these records is approximately 200m south of the site. There is also a single record for adder *Vipera berus*, located approximately 900m south of the site. The records date from 1995 to 2013.

All habitats within the site are considered entirely unsuitable for reptiles, with areas of hard standing offering no shelter to these species.

4.3.3 *Amphibians*

The Records Centre holds 44 records of amphibians from within a 1km radius of the site. The majority of these (38) pertain to common frog *Rana temporaria* and data from 1995 to 2013. There are also records of common toad *Bufo bufo* and smooth newt *Lissotriton vulgaris* dating from 2002 to 2018.

There are no ponds or standing open waterbodies within, or immediately adjacent to the site that amphibians could use for breeding. Although the site stands adjacent to the River Thames, the neighbouring stretch of river is considered unsuitable for breeding amphibians, being a broad flowing watercourse that is subject to significant disturbance and will contain predatory fish populations.

Consultation of Ordnance Survey maps, satellite imagery and the government's MAGIC mapping tool indicates the presence of two ponds within 500m of the site: one pond approximately 150m north and one pond approximately 480m east.

Research studies have shown that while great crested newts can under certain circumstances disperse up to 500m from their breeding ponds during the terrestrial phase of their annual lifecycle, the maximum 'routine migratory distance' is 250m (Cresswell & Whitworth, 2004). The pond located 480m to the east of the site is well outside of this routine migratory distance and is it therefore considered highly unlikely that great crested newts would commute from this pond into the site.

Although the pond located 150m to the north is within a plausible migration distance from the site, it is located on the far side of Wargrave Road, a busy A-road which is likely to form a barrier to amphibian dispersal.

All habitats within the site are considered entirely unsuitable for amphibians, with areas of hard standing offering no shelter to these species.

4.3.4 *Birds*

The data search returned 152 bird records, pertaining to 31 different species that have been recorded between 1996 and 2019.

Records include a number of species typical of wetland, riverine and freshwater habitats such as mallard *Anas platyrhynchos,* kingfisher *Alcedo atthis,* black-headed gull *Chroicocephalus ridibundus*, black-necked grebe *Podiceps nigricollis*, common tern *Sterna hirundo*, herring gull *Larus canus* and pintail *Anas acuta*. In addition, there are records for widespread garden species such as song thrush *Turdus philomelos*, dunnock *Prunella modularis* and house sparrow *Passer domesticus*. Records of farmland species include skylark *Alauda arvensis*, fieldfare *Turdus pilaris,* meadow pipit *Anthus pratensis* and swift *Apus apus*.

A number of records relate to birds of prey including red kite *Milvus milvus*, hobby *Falco Subbuteo* and kestrel *Falco tinnunculus.*

The site is unsuitable for ground nesting bird species such as skylarks, and no skylarks were observed or heard during the survey.

4.3.5 *Bats*

The Records Centre holds 24 records of bats within a 1km radius of the site, comprising mainly pipistrelles *Pipistrellus* spp. and brown long-eared bats *Plecotus auritus*. These records have been made at various locations north, south, east and west of the site, with the closest being approximately 165m to the south.

There are also records of Daubenton's bat *Myotis daubentonii,* Natterer's bat *Myotis nattereri* and greater horseshoe bat *Rhinolophus ferrumequinum*. These records date from 1995 to 2015 and were all made at locations within the Park Place School LWS, approximately 900m east of the site.

4.3.5.1 Bats & Habitats

The River Thames to the south-west of the site is considered to form a highly suitable foraging and dispersal corridor for bats. Wargrave Road to the north-east is sheltered on one side by overhanging trees and is also considered to form a potential bat dispersal corridor. Bat activity therefore predicted to be concentrated along these site boundaries.

The habitats within the site (all currently hardstanding), however, are considered to provide 'none' potential for commuting and foraging bats as there are no habitat features that are likely to be used by commuting or foraging bats (Collins, 2023).

4.3.6 *Otters & Water Voles*

The data search returned three records of European otter *Lutra lutra*, dating from 2006 to 2010. In all three cases the records pertain to field signs recorded at locations near Marsh Lock and Weir, upstream of the site, to the south-east. The closest record was made approximately 650m from the site boundary.

There are also seven records of European water vole *Arvicola amphibius.* These records are over twenty years old, dating from between 1995 and 1997. They were made at locations in Mill Meadows on the far side of the River Thames.

There are no riverine habitats within the site that would be suitable for otters or water voles, however, the River Thames is found ~55m south-west. Taking into account the ecology of water voles and otters, these two species are considered to be absent from the site. The site is subject to a high level of anthropogenic disturbance, with the riverbanks in regular use for boat mooring and the terrestrial areas cleared of dense vegetation. These factors contribute to making the site unsuitable for otters and water voles.

Despite the unsuitability of the site itself, otters have been recorded along the proximate stretch of the River Thames and it is considered possible that this species will continue to utilise this stretch of river for dispersal at night.

4.3.7 *Other Mammals*

There are two records of European badger *Meles meles*, made at locations to the north of the site, close to Remenham Wood LWS. These records date from 1995 and 2008.

No evidence of any other protected species, such as badgers, was recorded during the survey.

The habitats within the site are considered entirely unsuitable for badgers or hedgehogs.

4.3.8 *Invertebrates*

The TVERC holds 79 records of invertebrates within 1km of the site, covering taxa such as beetles, dragonflies and damselflies, mayflies, molluscs and moths.

Of these records, 61 are of stag beetle *Lucanus cervus*. The stag beetle spends the majority of its life cycle in larval form, during which it feeds on decaying wood, often underground. During its adult stage, males and females take to the wing in order to find mates and it is at this stage that the beetles are most conspicuous, and most likely to be recorded. The site does not offer any suitable habitat for this species, due to the lack of suitable dead wood habitats. The records for stag beetle date from 1998 to 2018.

There are species of moth included on Section 41 of the NERC Act 2006 or red data book listings that have been recorded within 1km of the site: the thatch pearl *Sclerocona acutellus* and cinnabar *Tyria jacobaeae* moth.

Habitats within the site are of limited botanical diversity and are considered unlikely to support a diverse or uncommon assemblage of invertebrates.

4.3.8.1 Invasive Species

Invasive species recorded from within a 1km radius include butterfly-bush *Buddleja davidii*, *Rhododendron ponticum*, *Arundo donax*, fringed water-lily *Nymphoides peltate*, giant hogweed *Heracleum mantegazzianum*, Indian balsam *Impatiens glandulifera*, Italian alder *Alnus cordata*, Japanese knotweed *Fallopia japonica*, New Zealand pigmyweed *Crassula helmsii*, Nuttall's waterweed *Elodea nuttallii*, orange balsam *Impatiens capensis*, parrot's-feather *Myriophyllum aquaticum*, three-cornered garlic *Allium triquetrum*, *Crangonyx pseudogracilis*, *Hemimysis anomala*, *Crangonyx pseudogracilis*, demon shrimp *Dikerogammarus haemobaphes* and zebra mussel *Dreissena polymorpha*. The records date from 1995 to 2018.

No invasive species were noted within the site.

5 Discussion

5.1 Relevant Legislative & Policy Guidance

5.1.1 *The Natural Environment and Rural Communities Act 2006*

Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on the Secretary of State to publish, review and revise lists of living organisms and types of habitat in England that are of principal importance for the purpose of conserving English biodiversity.

It also requires the Secretary of State to take, and promote the taking of, steps to further the conservation of the listed organisms and habitats. This is important in the context of planning decisions as the National Planning Policy Framework affords planning policy protection to the habitats of species listed by virtue of Section 41.

There are no habitats listed within Section 41 of the NERC Act 2006 that are considered to be relevant to the site.

Species listed within Section 41 of the NERC Act 2006 that are considered to be potentially relevant to the site include:

- Bat species such as the brown long-eared bat and soprano pipistrelle bat (River Thames ~55m south-west provides potential foraging and dispersal habitat)
- Otter (River Thames ~55m south-west provides potential dispersal habitat)

5.1.2 *The National Planning Policy Framework (NPPF)*

The National Planning Policy Framework was revised in response to the proposed reforms to the NPPF and other changes to the planning system consultation on 12th December 2024 and sets out the government's planning policies for England and how these are expected to be applied. This revised framework replaces the previous Nation Planning Policy Framework published in March 2012, revised in July 2018, updated in February 2012, revised in July 2021, updated in September 2023, and revised in December 2023.

The NPPF states that planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The following should be given the same protection as habitats sites:

a) Potential Special Protection Areas and possible Special Areas of Conservation;
b) Listed or proposed Ramsar sites; and
c) Sites identified, or required, as compensatory measures for adverse effects on a habitats site, (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitat's site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

5.1.3 *Environment Act 2021*

On 15th October 2019, the government introduced a new Bill to Parliament; The Environment Bill. This Bill was given Royal Assent on 9th November 2021 thereby passing the Environment Act 2021. This legislation will help ensure that England maintains and improves its environmental protection.

The Act details a legal requirement for all developments to ensure that a minimum of 10% net gain in Biodiversity is delivered. The Environment Act 2021 will help deliver the government's commitment to halt species decline by 2030.

Under the statutory framework for biodiversity net gain, subject to some exceptions, every grant of planning permission is deemed to have been granted subject to the condition that the biodiversity gain objective is met ("the biodiversity gain condition"). This objective is for development to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the on-site habitat. This increase can be achieved through on-site biodiversity gains, registered off-site biodiversity gains or statutory biodiversity credits.

The biodiversity gain condition is a pre-commencement condition: once planning permission has been granted, a Biodiversity Gain Plan must be submitted and approved by the planning authority before commencement of the development. There are exemptions which disapply the condition from certain planning permissions, as well as special modifications for planning permissions for phased development and the treatment of irreplaceable habitats.

5.2 Impact Assessment

5.2.1 *Sites of Nature Conservation Importance*

There are no foreseeable impacts on statutory/non-statutory sites of nature conservation importance as a result of the proposed development. This is due to the distance of such sites from the area of development, as well as the nature and scale of the proposals.

The habitats present exhibit no species or features that are indicative of calcareous grasslands, as seen in nearby LWSs.

The proposed development does not fall within the SSSI impact zone categories outlined in Section 4.1. Given this, the Local Planning Authority (LPA) are not required to consult Natural England on likely risks.

5.2.2 *Habitats*

The proposals will result in the loss of modified grassland (currently artificial unvegetated; unsealed surface). The loss of this habitat is unlikely to result in a significant ecological impact, given the site ecological value of this habitat.

There are no foreseeable impacts on habitats of 'principal importance', as listed within Section 41 of the NERC Act 2006.

The NPPF and local planning policy state that planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts to existing habitats and providing net gains for biodiversity. Please refer to Section 5.2.3 for an assessment of the impact proposals on the biodiversity of the site.

5.2.3 *Biodiversity Net Gain Assessment*

The Biodiversity Net Gain Assessment and calculation is presented below. The calculation is based off the UKHab Plan in Appendix 4 and the Proposed Habitat Plan in Appendix 5. See Appendix 6 for the biodiversity calculation.

5.2.3.1 Habitat Status Before Development

Table 5 presents the areas of each baseline habitat, prior to development.

The areas that are currently artificial unvegetated; unsealed surface are inputted into the Metric as modified grassland, as previously explained in Section 2.5.7.

Table 5. On-site habitat areas prior to development.

Habitat UKHab	Total Area (ha)/total length (km)
Modified grassland	0.0162
Developed land; sealed surface	0.0037

5.2.3.2 Habitat Condition Assessment

Habitat condition was assessed according to the criteria developed by DEFRA (2025), using the results of the UKHab Survey.

The condition assessments for on-site habitats are presented in Table 6.

Table 6. On-site habitat condition assessment.

Habitat	Condition Assessment	Justification
Modified grassland	Moderate	The modified grassland within the site passes 4 condition assessment criteria, resulting in a **moderate** condition assessment. The grassland failed 3 criteria due to having a homogenous sward height, physical damage evident in more than 5% of total grassland area and >10% cover of bare ground.
Developed land; sealed surface	N/A - Other	N/A – Other.

5.2.3.3 Habitat Strategic Significance

The site is not located within a Conservation Target Area (CTA) or Biodiversity Opportunity Area (BOA).

As a rule, all habitats within the site that have a distinctiveness of 'medium' or higher or are a habitat of 'principal importance' as outlined by Section 41 of the NERC Act 2006 will be classified as "location ecologically desirable but not in local strategy". This has been chosen to capture existing 'significant' habitats and proposed habitats that could provide a 'significant' enhancement to the site.

All other habitats will be classified as "area/compensation not in local strategy/no local strategy".

5.2.3.4 Habitat Status After Development

The proposed habitat areas/lengths after development are presented in Table 7.

Table 7. On-site habitat areas/lengths after development.

Habitat	Retained Area (ha)/Length (km)	Enhanced (NA)	New Area (ha)/Length (km)
Artificial unvegetated; unsealed surface	-	-	0.0162
Developed land; sealed surface	0.0037	-	-

Habitat	Retained Area (ha)/Length (km)	Enhanced (NA)	New Area (ha)/Length (km)

5.2.3.5 Habitat Condition Assessment

The condition assessments for on-site habitats post-development are presented in Table 8.

Table 8. On-site expected habitat condition assessment post-development.

Habitat	Condition Assessment	Justification
Artificial unvegetated; unsealed surface	N/A - Other	N/A – Other.
Developed land; sealed surface (retained)	N/A - Other	N/A – Other.

5.2.3.6 Results

The result of the calculation predicts a net loss in biodiversity:

- **-0.06 Habitat Units, -100.00% decrease**

The Trading Rules are **not satisfied.**

There are no hedgerow or watercourse habitats within the site (or within 10m of the site boundary) and such these habitats are not considered relevant to the biodiversity net gain calculation.

Given the above, the proposals deliver a net loss in habitat biodiversity. The biodiversity net gain calculation is based on habitat (botanical) value alone and does not take into account any species-specific ecological enhancement such as bird boxes and bat boxes. Such measures are likely to help reduce biodiversity loss from the existing situation.

Based on current proposal plans, achieving biodiversity net gain within the site is not considered possible and using biodiversity off-setting is considered the most appropriate method of securing a net gain for biodiversity.

To achieve a 10% biodiversity net gain and satisfy the Environment Act 2021, the purchase of Biodiversity Units through a Biodiversity Offsetting Scheme (such as provided by the Environment Bank) for **0.07** Habitat Units is considered appropriate.

5.2.4 *Species*

5.2.4.1 Plants

There are no foreseeable impacts on rare or protected plant species.

5.2.4.2 Reptiles

There are predicted to be no significant impacts on reptiles.

5.2.4.3 Amphibians

There are predicted to be no significant impacts on amphibians.

5.2.4.4 Birds

There are predicted to be no significant impacts on nesting birds.

5.2.4.5 Bats

Bats & Habitats

There are predicted to be no significant impacts on bats.

External lighting can have an impact on bats by affecting their activity and behaviour. Certain species of bat have been shown to be attracted to mercury vapour lamps which emit light over a very broad-spectrum including UV light to which insects are particularly sensitive. Insects can be attracted in large numbers to mercury lamps and so can bats of the genera *Nyctalus* and *Pipistrellus*, including noctules *N. noctula* and common pipistrelles *P. pipistrellus* (Rydell and Racey, 1993). Lighting has shown to have an opposite effect on certain other species, such as the lesser horseshoe bat, which have been shown to avoid areas of artificial light (Stone *et al.* 2009).

As a result of these factors, new external lighting within the site could have an adverse effect on foraging or commuting bats, particularly foraging and dispersal behaviour along the River Thames. Although disturbance by lighting is unlikely to result in significant impacts under the legal protection afforded to bats (and thus will not require a Bat Licence), lighting may result in a change in bat activity which is not desirable.

5.2.4.6 Otters

There are predicted to be no significant impacts on otters.

Evidence suggests that disturbance caused by development, for example through additional noise during the construction or insensitive external lighting can impact otters' foraging and commuting routes. Otters may attempt to avoid periodic disturbance by adopting alternative routes, however, newly adopted routes may involve the crossing of harmful obstacles such as roads.

Given that otters may use the neighbouring stretch of the River Thames as a dispersal corridor, without the adoption of appropriate mitigation measures, proposals could result in the disruption of otter dispersal behaviour.

5.2.4.7 Invertebrates

There are no foreseeable impacts on rare or protected invertebrates.

5.2.4.8 Other Species

There are predicted to be no significant impacts on other notable/protected species such as badgers, water voles and hedgehogs.

6 Recommendations

6.1 Further Surveys

No further surveys are considered necessary.

6.2 Habitats

6.2.1 *Retention & Protection*

6.2.1.1 Protection of Existing Habitats

It is recommended that retained trees (bordering the site boundary) and hedgerows are protected in accordance with British Standard 5837:2012, through the establishment of appropriate root protection zones.

6.2.1.2 Developed Land; Sealed Surface

The retained developed land; sealed surface has a pre-assigned condition assessment of **N/A -other**. Given this, there are no formal establishment or management prescriptions to maintain the habitat at this condition assessment.

6.2.2 *Creation & Enhancement*

6.2.2.1 Artificial Unvegetated; Unsealed Surface (creation)

The proposed artificial unvegetated; unsealed surface has a pre-assigned condition assessment of **N/A - other**. Given this, there are no formal establishment or management prescriptions to maintain the habitat at this condition assessment.

6.3 Species

6.3.1 *Bats*

6.3.1.1 Lighting

It is recommended that external lighting is avoided within the site, unless it is necessary for reasons of security and safety. In particular, lighting should be avoided around any boundary trees/hedgerows/river.

The key in the first instance is to maintain or reduce existing light levels, and reduce blue content to protect the bat species present; this is in line with the mitigation hierarchy where impacts are avoided in the first instance by being planned out (Bat Conservation Trust, 2023).

If lighting is required, it should be kept at low level and at low intensity (Bat Conservation Trust, 2023 and Emery, 2008).

Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on key habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges

- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt
- Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

6.3.2 *Otters*

It is recommended that light spill onto the River Thames does not increase beyond its current intensity in order to prevent disruption of otter activity along the river.

It is recommended that significant construction activities be restricted to daylight hours to avoid noise disturbance during periods when otters might be commuting along the river corridor.

7 References

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8 Appendix 1. Photographs

Photograph 1. The additional driveway after completion of works.

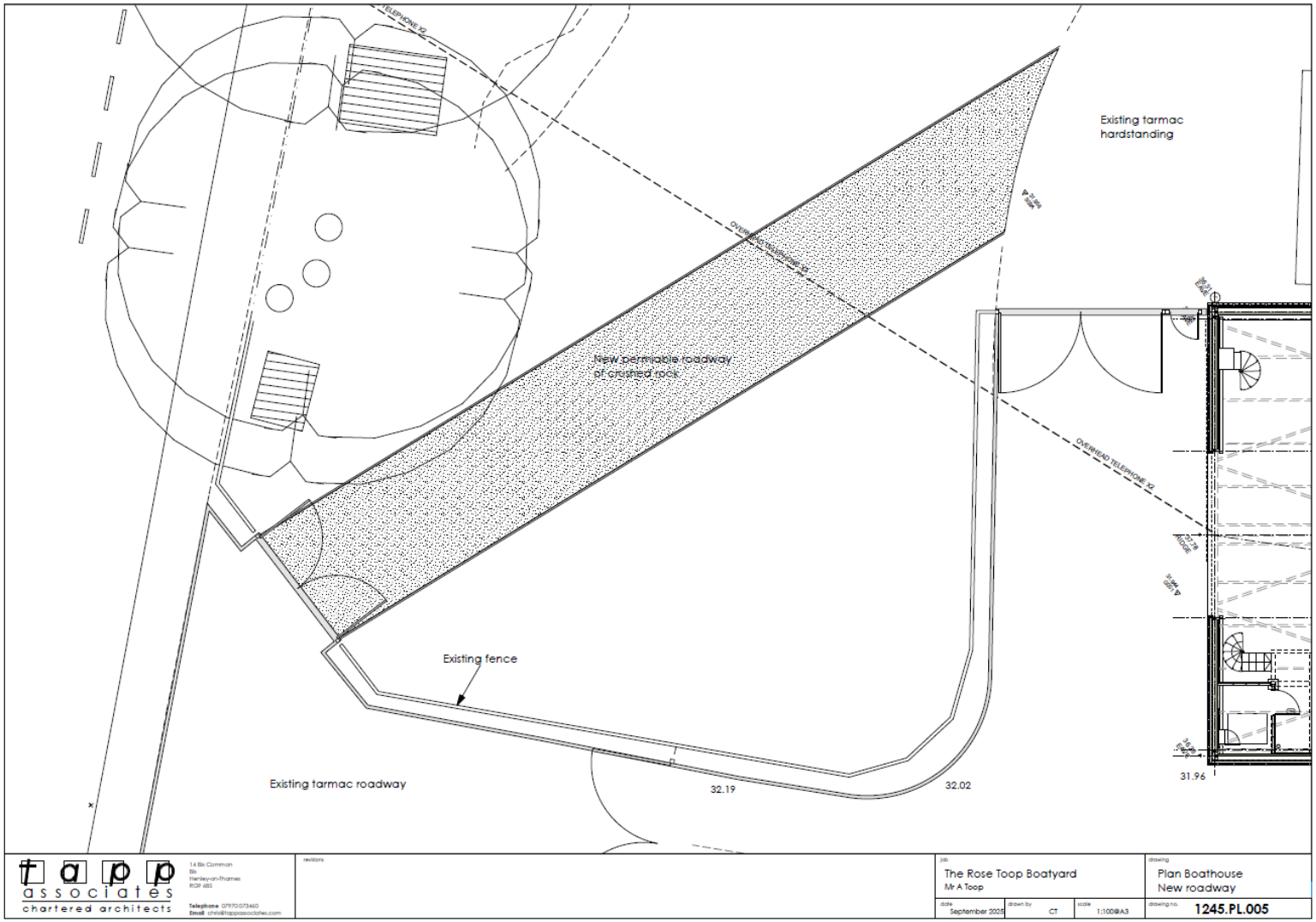
Photograph 2. The additional driveway during works.

9 Appendix 2. Site Location Plans

Aerial photograph showing the location of the site, outlined in red. Source: *Google Satellite*

Map showing the location of the site, outlined in red, within the local area. Source: *OSM Standard*

10 Appendix 3. Proposal Plan



11 Appendix 4. UKHab Habitat Plan

12 Appendix 5. Proposal Habitat Plan & Habitat Change Plan


N
0
10
20 m
Thamesfield
Cottage
Wargrave Road
32.3m
Legend
Red Line Boundary
Habitats Retention
Retained
Lost
1:300 @A3
DATE: 21/10/2025
PROJECT: Rose Toop
REF: W6605
CREATOR: R.H
REVIEWER: E.B
Contains OS data © Crown copyright and database rights [2025]

13 Appendix 6. Statutory Biodiversity Metric

Please refer to separate Excel document.