Sunnyside Road, Sandgate, Folkestone

Preliminary Ecological Appraisal

A Report for Coast Pro Ltd

September 2020





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Controlled Copy 01 of 02

01 Coast Pro Ltd

02 Greenspace Ecological Solutions Ltd

This report was written by Oliver Kemp GradCIEEM and proof read / revised by Guy Newman MCIEEM

The content of this report is the responsibility of Greenspace Ecological Solutions Ltd.

It should be noted that whilst every effort has been made to meet the client's requirements, no site survey can ensure complete assessment or prediction of the changeable onsite environment. Furthermore, should more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.

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1 PROJECT OVERVIEW

Client: Coast Pro Ltd

Site Address: Sunnyside Road, Sandgate, Folkestone, Kent, CT20 3TA

Attending Ecologists: Guy Newman (NE Bat Licence Level 2, GCN Licence Level 1)

Oliver Kemp (NE Dormouse Licence Level 1)

Survey Date: 18th August 2020

Site Proposals: Demolition of existing property to facilitate the construction of new

dwellings

Associated Planning Reference Number: Not yet submitted.

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Desk Study:	Magic.gov.uk

2 NON-TECHNICAL SUMMARY

- 2.1 In response to the development at Sunnyside Road, Sandgate, the site has been subject to a Preliminary Ecological Appraisal.
- 2.2 The small localised scale of the development and the intervening habitats result in no detrimental impact upon designated sites, ancient woodland or BAP priority habitats resulting from the proposed.
- 2.3 Retained trees require protection in accordance with BS 5837:2012.
- 2.4 Th proposed works requires the removal of trees. Of those to be removed, the trees denoted T5, T24 and T28 support features suitable for use by bats. Although no evidence if bats was recorded at the time of the survey, as a precautionary measure it is recommended that they be subject to further elevated inspections immediately prior to the start of work.
- 2.5 The trees, scrub and bird boxes within the site have potential to support nesting birds and recommendations in regard to timings and methods of best practice have been provided.
- 2.6 The site is heavily overgrown and subject to high level of shading. However, as a precautionary measure, phased habitat manipulation to displace reptiles should they be present, has been recommended.
- 2.7 The likelihood of other protected and notable species to occur within the site is considered negligible and no further surveys for other protected species are required.
- 2.8 Should at any point during the development a protected or notable species be identified within the site then all works should stop, and the appointed ecologist consulted on the appropriate manner in which to proceed.
- 2.9 In accordance with the requirement of the NPPF, recommendations to enhance the site's suitability for wildlife have been provided.

3 INTRODUCTION

3.1 Context

- 3.1.1 In response to the proposed development of land at Sunnyside Road, Sandgate, a Preliminary Ecological Appraisal (PEA) has been undertaken of the building, trees and land to be affected. Henceforth referred to as 'the site', the proposed plans are understood to involve the demolition of the current building and associated garden to facilitate the construction of new dwellings within the site.
- 3.1.2 The site's potential to support protected species and habitats has been assessed and appropriate recommendations have been provided. Trees and buildings have been assessed for their potential to support roosting bats. Ecological features of interest are depicted in Figure 1.

3.2 Site Location

3.2.1 The site is located within village of Sandgate, Folkstone, Kent, at National Grid Reference TR 195 351. The geographical location of the site is depicted in Image 1.

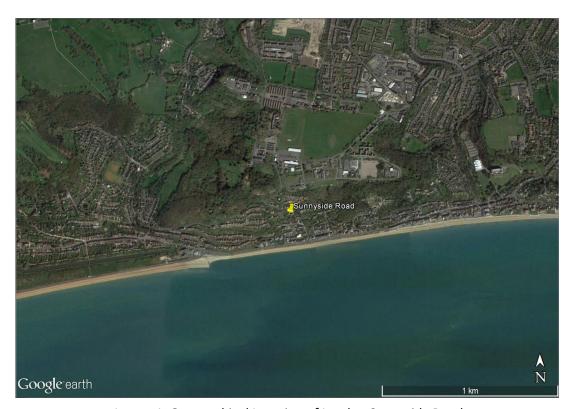


Image 1. Geographical Location of Land at Sunnyside Road

3.3 Site Description

- 3.3.1 The site occupies approximately 0.5 hectares (ha) and comprises the main house and garage, amenity grassland, ornamental planting with wooded areas, scrub and a tennis court.
- 3.3.2 The site is bound by the Corniche Road to the north; residential dwellings to the east and west; and Sunnyside Road to the south. The wider landscape is predominantly residential properties with associated gardens and areas of coastal scrub with scattered trees. The English Channel lies approximately 175m south of the site.

3.4 Legislation and Policies

Legislation

- 3.4.1 The main legislation that applies to ecological issues within England and Wales are:
 - The Conservation of Habitat and Species Regulations 2017 transposes European Union Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. These regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' and the adaptation of planning controls for the protection of such sites and species. Under the regulations, public bodies have a duty in exercising their functions to have regard to the EC Habitats Directive.
 - The Wildlife and Countryside Act 1981 (as amended) provides detail on a range of
 protection and offences relating to wild birds, other animals, and plants. The level of
 protection depends on which Schedule of the Act the species is listed on. Licences are
 available for specific purposes to permit actions that would otherwise constitute an
 offence in relation to species.
 - The Natural Environment and Rural Communities (NERC) Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. The duty is created by section 40(1) of the Act, which states that: "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity."
 - Hedgerows Regulations Act 1997 serves to, enforced under the Environment Act 1995, restrict the removal of hedgerows, or parts of hedgerows which are over 20m in length.
 In this case, removal includes digging up and replanting elsewhere, as well as removing

- from the land completely or destroying in the course of other actions. This includes developments or activities which destroy the roots, causing the vegetation to die.
- The Protection of Badgers Act 1992 exists to protect badgers (*Meles meles*) from cruelty.

 Under the act it a criminal offense to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, or to intentionally or recklessly interfere with a sett.
- 3.4.2 The above summary serves as guidance only the reader is referred to the original legislation for definitive interpretation.
 - **UK Planning Policy**
- 3.4.3 The recommendations of this report are in line with the key principles of the National Planning Policy Framework (2018) and Government Circular 06/05.
- 3.4.4 Local planning policies relating to ecology are invariably based on the conservation of species protected under the above legislation, including species and habitats of principal importance listed under Section 41 of the NERC Act 2006; and the protection of designated sites. All of these features are considered within the scope of this preliminary ecological appraisal and therefore any recommendations made herein are likely to be in line with this policy.

3.5 Objectives of the Survey

- 3.5.1 The objectives of the survey were to:
 - Classify the main habitats present within the site;
 - Evaluate the ecological importance of these habitats;
 - Assess buildings and trees for their potential to support roosting bats;
 - Evaluate the potential for other protected species to occur within the site; and
 - Provide appropriate recommendations for further surveys and mitigation where required.

3.6 Survey Constraints

- 3.6.1 Preliminary Ecological Appraisals can be undertaken at any time of the year, yet to enable the majority of botanical species to be detected the optimum time of year for these surveys to be undertaken is between April and mid-July (inclusive). This survey was undertaken outside of this optimum period and there is a possibility that some annual species may not have been recorded. Mapping and description of broad habitat types has, however, still been possible.
- 3.6.2 All measurements and indications of area given within this report are approximate.

4 SURVEY METHODOLOGY

4.1 Desk Study

- 4.1.1 A desk study was undertaken to determine the presence of sites and habitats of conservation importance together with historical records of protected and notable species within a 2km radius of the site.
- 4.1.2 The following bodies were consulted for the desk study:
 - Kent and Medway Biological Records Centre (KMBRC)
 - Magic.gov.org

4.2 Preliminary Ecological Appraisal

Habitats

- 4.2.1 The site was surveyed using the methodology outlined in 'The Handbook for Phase I Habitat Survey: A Technique for Environmental Audit' (JNCC, 2010). This involves identifying the main plant communities present on the site and classifying the habitat types following the JNCC methodology. This technique provides an inventory of the basic habitat types present and enables areas of greater botanical interest which may require further, more detailed, surveys to be identified. Any occurrences of recognised invasive species as listed on Schedule 9 of the Wildlife and Countryside Act (as amended) were also noted.
- 4.2.2 A map of the habitats and areas of interest (using a variation of the JNCC 2010 protocol for Phase I Habitat plans) is provided in Figure 1. Photographs of features of interest are presented in Appendix A.

Protected Species

4.2.3 The survey was extended to include an assessment of the site's potential to support protected and notable species. The suitability of the habitats present on the site were assessed. Connectivity to the site from other areas of potentially suitable habitat nearby were also recorded where present.

Badger

4.2.4 Evidence of badger activity on site (and where possible within the distance generally considered to be the zone of disturbance) was assessed by searching for signs such as: the presence of setts indicated by suitably sized holes or burrows; badger latrines, badger hair and/or footprints; and evidence of well-used runs supported by secondary evidence such as foraging signs.

Bats

- 4.2.5 Where buildings, trees or other structures are present within the site, specific survey work was undertaken in order to assess their suitability to support roosting bats. In this instance, a variety of equipment was used to complete the bat scoping survey, including high powered torches, cameras with telephoto lens and a ladder.
- 4.2.6 Any trees within the site, which were deemed likely to be affected by the development, were surveyed in accordance with current best practice guidance (Collins, 2016). Trees were inspected for features such as splits, fissures, delaminated bark, heavy ivy cover and woodpecker holes. Evidence such as droppings, staining and bats themselves were searched for below and in suitable features.
- 4.2.7 Where buildings were encountered, a full external and internal inspection was undertaken (access permitting). Any likely roosting or access points for bats such as raised fascia boards, missing/lifted tiles, cracks or crevices in brick/blockwork and gaps in soffit boxes were recorded and searched for evidence of use by bats (staining, droppings, scratch marks, or the bats themselves). The results of a scoping survey enable the buildings and trees to be categorised as having Confirmed, High, Moderate, Low or Negligible suitability to support roosting bats. An outline of categorisation procedure for classifying bat suitability is presented in Appendix B.
- 4.2.8 In accordance with current best practice guidance (Collins, 2016), the categorisation of High, Moderate, Low or Negligible suitability determines the need or not for further summer emergence surveys. Although left to the discretion of the appointed ecologist, in most instances High suitability requires 3, Moderate suitability requires 2 and Low suitability requires 1 evening emergence or pre-dawn re-entry survey/s. Please note, Low suitability for bats within trees requires no further surveys. Greater detail on the minimum number of surveys recommended in most instances is presented in Appendix C.

Birds

4.2.9 The site was assessed for its potential to support nesting and breeding birds. Factors considered include suitable cover and feeding habitat, the presence of used and disused nests and birds displaying nesting characteristics.

Hazel Dormouse

4.2.10 The site was surveyed for suitable dormouse habitat, such as the presence of a well-connected understorey broadleaf habitat, hedgerows and suitable food sources such as oak, hazel and other nut-bearing trees, fruiting trees and shrubs, flowers and invertebrates.

Great Crested Newt

4.2.11 No waterbodies with the potential to support great crested newts were identified within 250m of the site during the desk study. Therefore, the likelihood of the species being present within the site is minimal, and an assessment of terrestrial habitat for the species was not necessary. No further reference to great crested newts is included within this report.

Reptiles

4.2.12 The site was assessed for its potential to support reptile populations. Suitable habitat for reptiles includes long grass, scrub, woodland and hedgerow borders and wood/rubble piles that act as hibernacula.

Other species

4.2.13 Consideration was given to the site's suitability to support other protected and notable species.

5 SURVEY RESULTS

5.1 Desk Study

Statutory Designated Sites

5.1.1 Statutory designated site within 2km of the site are presented in Table 1.

Table 1-Statutory designated sites

Site Name	Distance from site
Seabrook Stream SSSI	1.45km NW

Non-statutory Designated Sites

5.1.2 Non- statutory designated sites within 2km of the site are presented in Table 2.

Table 2- Non-statutory designated sites

Site Name	Distance from site
SH26 Royal Military Canal	0.64km
SH27 Paraker Wood and Seabrook Stream, Shorncliffe	0.89 km

Ancient Woodland

5.1.3 There are two areas of ancient woodland present within 2km of the site. The closest is an Ancient Semi-Natural woodland (ASNW) which lies approximately 0.99km north-west of the site.

UK BAP Priority Habitats

5.1.4 UK BAP Priority Habitats within 2km of the site are presented in Table 3.

Table 3 – UK BAP Priority Habitats

Habitat Type	Distance from site
Deciduous Woodland	35m (NE)
Intertidal Substrate Foreshore	0.18km (S)

Protected or Notable Species

Bats

5.1.5 Bat species that are likely to occur within the site are presented in Table 4.

Table 4 – Relevant Bat Records within 2km of the Site

Common Name	Scientific Name	Legal Protection / Conservation Priority Status	
Daubenton's Bat	Myotis daubentonii	EU_Hab_4; HabReg_s2; WCA_s5s94b; WCA_s5s94c	
Whiskered/Brandt's	Myotis	EU_Hab_4; HabReg_s2; NERC_s41;	
Bat	mystacinus/brantii	WCA_s5s94b;WCA_s5s94c	
Natterer's Bat	Myotis natterii	EU_Hab_4; HabReg_s2; NERC_s41; WCA_s5s94b; WCA_s5s94c	
Noctule Bat	Nyctalus noctula	EU_Hab_4; HabReg_s2; NERC_s41; WCA_s5s94b; WCA_s5s94c	
Nathusius' Pipistrelle	Pipistrellus nathusii	EU_Hab_4; HabReg_s2; NERC_s41; WCA_s5s94b; WCA_s5s94c	
Common Pipistrelle	Pipistrellus pipistrellus	EU_Hab_4; HabReg_s2; WCA_s5s94b; WCA_s5s94c; HBAP	
Soprano Pipistrelle	Pipistrellus pygmaeus	EU_Hab_4;HabReg_s2; NERC_s41; WCA_s5s94b; WCA_s5s94c	
Serotine Bat	Eptesicus serotinus	HabDir:A4; Berne:A2; Bonn:A2; WCA5; KRDB3	
Brown Long-eared Bat	Plecotus auritus	EU_Hab_4; HabReg_s2; NERC_s41; WCA_s5s94b; WCA_s5s94c	

Birds

5.1.6 Bird species of conservation concern that are likely to occur within the site are presented in Table 5.

Table 5 – Relevant Bird Records within 2km of the Site

Common Name	Scientific Name	Legal Protection / Conservation Priority Status	
House Sparrow	Passer domesticus	BAP; BoCC4:Red;	
Dunnock	Prunella modularis	BAP; Berne:A2; BoCC4:Amber; S41	
Starling Sturnus vulgaris		BAP; BoCC4:Red;	
		BirdsDir:A2.2; S41;	
Song Thursh Turdus philomelos		BAP; Berne:A3; BoCC4:Red;	
		BirdsDir:A2.2	
Black Redstart Phoenicurus		Berne:A2; BoCC4:Red;	
	phoenicurus	Bonn:A2; WCA1	
Willow Warbler	Phylloscopus trochilus	Berne:A2; BoCC4:Amber	

Herpetofauna

5.1.7 Herpetofauna species of conservation concern that are likely to occur within the site are presented in Table 6.

Scientific Name Legal Protection / Closest Species Date of **Conservation Priority** Record Closest Record Status Grass snake Natrix helvetica Bern III, WCA5(p) 1.5km N 2007 Slow worm Anguis fragilis Bern_III, WCA5(p) 0.8km W 2009 Common lizard Zootoca vivipara Bern_III, WCA5(p) 0.3km SW 2013 Adder TR2035 2005 Vipera berus Bern III, WCA5(p) Sand Lizard Lacerta agilis ECH_IV, Bern_II, TR1935 1969 WCA5, CRoW

Table 6 – Herpetofauna Records within 2km of the site

Other Notable species

5.1.8 No other species conservation interest to the site were recorded within 2km.

5.2 Phase I Habitat Survey

- 5.2.1 The following habitat types were recorded within the site:
 - Buildings
 - Hardstanding
 - Amenity grassland
 - Scrub/ruderal
 - Bare ground
 - Ephemeral
 - Ornamental planting
 - Waterbody
 - Hedgerow
 - Trees

Buildings

5.2.2 Two structures exist within the site. The main house is a three-storey brick-built structure situated in the easternmost end of the site. The garage is a single storey brick structure situated in the south of the site. A more detailed description of these structures, and their suitability to support roosting bats is provided below in section 4.3.

Hardstanding

5.2.3 Leading into the site from Sunnyside Road, an area of hardstanding forms access, parking, pathways and areas of concrete that surround the buildings. No botanical species were attributed to this habitat type. A tennis court is located to the west of the site. This feature is in good condition and covers approximately 550m².

Amenity Grassland

5.2.4 Amenity grassland exists to the south of the tennis court and to the west of the main house. Frequently managed and with a sward height of ≤10cm, grass species present include dominant perennial ryegrass *Lolium perenne*; locally abundant cocks-foot *Dactylis glomerata* and abundant annual meadow grass *Poa annua* and Yorkshire fog *Holcus lanatus*. Herbaceous species present include locally abundant yellow pimpernel *Lysimachia nemorum*, pendula sedge *Carex pendula* and broadleaf plantain *Plantago major*; occasional common daisy *Bellis perennis*, dandelion *Taraxacum sp.*, creeping buttercup *Ranunculus repens*, clover *Trifolium sp.* and cinquefoil *Potentilla sp.* with bristly oxtongue *Helminthotheca echioides*, red dead nettle *Lamium purpureum* and spear thistle *Cirsium vulgare* occurring rarely.

Scrub/Ruderal

5.2.5 An area of scrub is located on a steep bank on the north of the site. Covering some 1600m², botanical species present include; dominant bramble *Rubus fruticosa* agg, locally abundant willow herb *Epilobium* sp. and field horsetail *Equisetum arvense*; frequent burdock *Arctium lappa* and bracken *Pteridium* sp.; occasional common nettle *Urtica dioica*, periwinkle *Vinca* sp., bindweed *Calystegia* sp., Buddleja *Buddleja davidii* and maple sapling *Acer* sp..

Bare ground

5.2.6 Bare ground is located south of the tennis court and right of the amenity. Subject to routine garden maintenance, low-level ephemeral vegetation growth was present at the time of survey.

Ephemeral

5.2.7 South of the tennis court, bare ground and amenity grassland is an area of emergent ephemeral vegetation. Species present include locally abundant common nettle; frequent bay laurel *Laurus nobilis*; locally frequent yellow flat iris *Iris pseudacorus* and yellow avens *Geum aleppicum*; occasional evening primrose *Oenothera biennis*, dandelion, cleavers *Galium aparine*, willow herb sp. and heliotrope *Heliotropium* sp. with rare bristly ox tongue, cocks' foot and Yorkshire fog.

Ornamental planting

5.2.8 Ornamental planting is located around the boarders of the amenity grassland to the west of the house. Species present include occasional fuchsia *Fuchsia sp.*, sedum *sedum sp.*, bamboo *Bambusoideae sp.*, teasel *Dipsacus fullonum*, common gorse *Ulex europaeus* and stinking iris *Iris foetidissima* with rarely occurring foxglove *Digitalis purpurea*, mullein *verbascum sp.*,

Buddleja, rose *Rosa sp.*, green alkanet *Pentaglottis sempervirens* and allium *Allium sp.* also present. A palm tree *Arecaceae sp.* and an olive tree *Olea sp.* were also present.

Waterbody

5.2.9 Set within the amenity grassland west of the main house is a small (2m radius) ornamental waterbody. Concrete lined and heavily overgrown the feature supported very little water at the time of the survey.

Hedgerow

5.2.10 A leylandii hedge is located to the east of the tennis court and runs north to south. A small privet hedge is located to the north of the amenity grassland to the west of the house.

Trees

5.2.11 Trees are present throughout the site and range in species. A more detailed description trees with bat potential are presented below in section 4.3. A more detailed description of trees within the site is presented within the associated arboricultural report (GES, 2018).

5.3 Protected Species

Badger

5.3.1 No evidence of badgers was identified within the site.

Bats Roosting Habitat – Buildings

Main House (B1)

5.3.2 The building denoted B1 in Figure 1 is a three-storey detached building which has a footprint of 170m² and is located in the eastern end of the site.

External

- 5.3.3 Externally the structure is a mix of brick and pebble dashed rendered elevations. With the exception of a rot pocket in the timber soffit on the front southern elevation, the structure is in good condition throughout and no visible access points for bats were recorded. Two glass conservatories are attached to the eastern elevation. The roof comprises multiple pitches which have a covering of tight-fitting concrete tiles. With exception of that noted above, the timber soffits around the perimeter of the structure are tight fitting and lack access points for bats. Lead flashing at the chimneys is slightly raised.
- 5.3.4 Potential Roosting Features (PRF's) on the exterior of the building B1 is limited to beneath the lead flashing at the chimney and the rot pocket in the soffit box. All other areas are deemed tight and inaccessible to bats.

- 5.3.5 No evidence of bats was recorded during the external survey of B1.
 - Internal
- 5.3.6 Internally, the ground and first floor of the building were formally in use as a residential dwelling. Consequently, the ground and first floor are well lit by natural light and unsuitable for use by bats.
- 5.3.7 Two roof voids exist. Access to Void 1 is gained through the converted second floor attic space. Void 1 has a chimney at both the northern and southern ends and the void is lined with timber sarking. A glazed window is present to the north which results in a well-lit space. The void measures 4m x 3m x 2.2m to the ridge.
- 5.3.8 Void 2 is located at the eastern end of the building and is accessed through a bathroom. The void is 2m wide x 3m long x 1.7m to the ridge. Timber sarking and a ridge board are present.
- 5.3.9 No evidence of bats was recorded in either of the voids. Void 1 was moderately cobwebbed, and Void 2 was heavily cobwebbed. PRF's were limited to on top of the ridge board for both voids.
 - Garage (B2) -
- 5.3.10 To the south of the Main House and adjacent to the sites access road lies a singly storey brick-built garage. Accessed by way of a metal up and over door and heavily shaded by adjacent trees, the structure has a flat felt covered roof and no internal loft void present. No evidence of use by bats was recorded and the Garage B2 supports no features suitable for use by bats.
 - Bats Roosting Habitat Trees
- 5.3.11 Trees with potential to support roosting bats to be affected by the proposed development are described below. Locations are depicted in Figure 1. All other trees are considered unsuitable for use by bats or are to remain unaffected by the development.

Table 8 – Tree Survey Results

Tree No.	Species	Height (m)	DBH (mm)	Description of features
T5	Ash (Fraxinus excelsior)	6	550	Several basal rot holes resulting in multiple cavities. No evidence of use by bats was recorded.
T24	Sycamore (Acer pseudoplatanus)	7	280	Hole on northern face at 4m may extend.
T28	Cherry (Prunus sp.)	7	400	Hole at 2m on northern aspect which extends. 3m union weld cavity to north. Rot hole present on northern aspect at 0.5m. No evidence of use by bats was recorded.

Bats Foraging and Commuting Habitat

- 5.3.12 The site and its immediate surrounds offer suitable foraging and commuting habitat for bats in the form of the scattered trees and scrub areas.
- 5.3.13 Connectivity for bats to access the wider landscape is also good.

Birds

5.3.14 The site provides suitable nesting and foraging habitat for birds. Approximately 10 bird boxes had been installed on trees and the building within the site.

Hazel Dormouse

5.3.15 The habitats within the site are suboptimal for use by dormice. Suitable habitat is limited to the area of scrub which lacks connectivity to the wider landscape.

Reptiles

5.3.16 The trees and structures that dominate the site result in high levels of shading and the dense scrub that has colonised the bank to the north of the tennis court provides little opportunity for reptiles to bask.

Invertebrates

5.3.17 The habitats present within the site are common and widespread and although likely to be present, the invertebrate assemblage is considered unlikely to be of conservation concern.

Other species

5.3.18 Beyond those noted above, the survey identified no other evidence of protected species within the site.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Designated Areas

6.1.1 The statutory designated site of the Seabrook Stream SSSI, lies 1.45km north-west and the Non-statutory Royal Military Canal and Parker Wood and Seabrook Stream lie 640m and 890m from the site respectively. When considering the small localised scale of the proposed development and the intervening habitats, approval of the proposed development will result in no deleterious impact to these or any other designated sites.

6.2 Ancient Woodland

6.2.1 The nearest ancient woodland site is located approximately 1km north west of the site. This distance is well beyond the 15m buffer recommended by Natural England the Forestry Commission when working near ancient woodland sites and development of the site will have no detrimental impact on this or any other areas of ancient woodland.

6.3 Habitats and Botanical Species of Interest

- 6.3.1 The BAP priority habits of deciduous woodland exists 35m from the site, however, the localised scale of the proposed development will result in no deleterious impact to this or any other BAP priority habitat.
- 6.3.2 To ensure the welfare of retained trees is maintained throughout the development, trees to be retained within and beyond the site boundary should be protected in accordance with the British Standard 5837:2012 'Trees in relation to design, demolition and construction'.

6.4 Protected Species

Badger

6.4.1 No evidence of badgers was recorded and no further surveys for badger are required.

Bats – Roosting habitat

Buildings -

6.4.2 No evidence of use by bats was recorded and the areas of potential for roosting bats within B1 are restricted to a small area of lead flashing around the chimney and a single rot pocket in the southern soffit box. The soffit box access is beneath a glazed canopy and is considered sub-optimal for use by bats. The lead flashing alone is considered insufficient to activate the need for further surveys for bats and the building is deemed 'Negligible' in its suitability to support roosting bats.

6.4.3 No evidence of use by bats or features suitable for the purpose of roosting were identified within the Garage (B2). This building is also deemed 'Negligible' in its suitability to support roosting bats.

Trees -

6.4.4 From reviewing the provided plans it is understood that tree removal will be required to facilitate the build. Trees with potential for roosting bats (or trees with which the survey was constrained) that are to be affected by the proposed development are highlighted in section 5.3.11. Their level of potential and recommendations in regard to further actions are present in table 4.

Table 4. Level of Potential and Further Actions - Trees

Tree No.	Species	Level of Potential	Further Action Required
T5	Ash	Low	Reinspect with a ladder and endoscope prior to removal
T24	Sycamore	Low	Reinspect with a ladder and endoscope prior to removal
T28	Cherry	Low	Reinspect with a ladder and endoscope prior to removal

Bats – Commuting and Foraging habitat

- 6.4.5 Commuting and foraging habitat for bats exists in the form of trees and shrubs. Although the extent of removal is currently unclear, consideration to the retention of vegetation creating flightlines and foraging habitats should be considered. So long as flight lines and foraging habitat is retained, no activity surveys for bats are required. Should the development require significant removal of trees and shrubs to result in a disconnect from the wider landscape, further survey to determine the sites use by bats may be required.
- 6.4.6 Lighting can be detrimental to how bats use a site and consideration to a sensitive lighting strategy should be implemented within the design. Such consideration should implement the recommendations set out with the Bat Conservation Trust and the Institute of Lighting Professionals (2018) guidance <u>Bats and Artificial Lighting in the UK.</u>

Birds

6.4.7 Suitable nesting habitat exists in the form of the open soffit box, trees, scrub and bird boxes within the site. All nesting birds are protected under the Wildlife and Countryside Act 1981

- (as amended) and it is recommended that works to these areas (where necessary) are conducted outside the core breeding period for birds of late February August inclusive.
- 6.4.8 Should this timeframe be unobtainable, a thorough search for the presence of breeding birds should be conducted by a suitably experienced ecologist prior to the start of works. Should evidence of breeding birds be recorded, works within 5m of the nest, or works that have potential to destroy the nest, should stop until the eggs have hatched and the chicks fledged, or the nest is deemed by a suitably experienced ecologist to have been abandoned.
- 6.4.9 To offset the loss of suitable breeding habitat, replacement nesting opportunities should be included within the design, either incorporated into the buildings or in suitable locations within retained trees. A total of 5 boxes from a range of bird box types should be installed within the Site. Boxes integrated within structures should be from a reputable source such as those available from www.habibat.co.uk. Tree mounted boxes should include both open fronted and hole fronted nest boxes.

Hazel Dormouse

6.4.10 Habitats within the site are unsuitable and the sites connectivity to areas of suitable habitat in the wider landscape is limited. No further surveys for dormice are required.

Reptiles

- 6.4.11 Habitats within the site are predominantly heavily shaded and considered unsuitable for reptiles. In response, further surveys to determine the presence / likely absence of reptiles is considered disproportionate in this instance.
- 6.4.12 However, as a precautionary measure, it is recommended that vegetation within the site be cleared in the following phased manner:
- 6.4.13 In order to make them unsuitable for reptiles and discourage any herpetofauna from entering the construction area, therefore minimising the risk of killing/injuring during the construction period, habitats within the construction zone will be cleared in a phased manner prior to any construction. This vegetation clearance will be carried out under the supervision of a suitably experienced ecologist (SEE) and as described below:
 - To enable animals to move out of harm's way of their own volition, all vegetation works will be conducted during the period March October (inclusive) in any given year.
 - An initial cut of all vegetation within the construction zone will be carried out cutting vegetation to approximately 150mm.

- Following a period of <5 days, a second cut of all vegetation within the construction zone will be carried out cutting vegetation to approximately 50mm.
- Following a period of <5 days the SEE will carry out a fingertip-search of the of the area to be cleared for any reptiles and other herpetofauna that may remain.
- Should reptiles / herpetofauna species be found they will be relocated to a suitable area of retained habitat out of harm's way. Immediately following this finger-tip search, a final cut of the vegetation will be carried out, clearing it to ground level.
- All the above vegetation clearance will be carried out using hand tools only (brush cutters and strimmers are acceptable) and will be conducted moving south to north in order to encourage reptiles to relocate to retained and surrounding habitats naturally.
- Any refugia, including log piles or piles of debris (TN2 and TN7) in any of the habitats to be cleared should be broken down by hand under the supervision of the SEE.
- Should reptiles be encountered at any point during any of the works, works should stop whilst the reptile is relocated out of harm's way.
- In order to ensure that the construction area remains unsuitable for reptiles and other herpetofauna, regular habitat maintenance should be carried out to ensure that vegetation is not able to recolonise any of the construction area.
- Once the above habitat clearance has been carried out and the construction area has been declared by the SEE as unsuitable for reptiles, construction activities may commence.

Other species

- 6.4.14 Beyond those noted above, there are no obvious and immediate issues regarding other protected species and no further surveys to determine the presence of other protected species is required.
- 6.4.15 Should at any point during the development a protected or notable species be identified within the site, then all works should **stop** and the appointed ecologist consulted on the appropriate manner in which to proceed.

7 ECOLOGICAL ENHANCEMENTS

- 7.1 Opportunities to include biodiversity enhancements within the site exist and in accordance with the requirements of the NPPF the following recommendations are considered appropriate for the site:
 - The installation of 4 x integrated bat boxes (one per building) such as those available from Habibat (or similar) would increase the site's potential for roosting bats. To maximise suitability, boxes should be installed on sheltered aspects close to vegetation at a height of >3m, preferably on north, north-east or north-west facing elevations.
 - To ensure that the free movement of species such as badgers and other mammals is retained post-construction, animal-friendly post and rail fences should be utilised where possible.
 - Where closed board panel fencing is required, this should be installed with hedgehog gates within the gravel boards.
 - The incorporation of a native, nectar rich, wildlife-friendly planting scheme within the grounds would serve to benefit invertebrates.
 - Tree planting within the landscape design should be undertaken using native species such
 as pedunculate oak Quercus robur, small leaved lime Tilia cordata, wild service tree
 Sorbus torminalis or similar.

8 REFERENCES

Bat Conservation Trust and the Institute of Lighting Professionals (BCT&ILP) 2018. Guidance Note 8; Bat and Artificial Lighting in the

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

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JNCC (2010). Handbook for Phase I Habitat Survey; A Technique for Environmental Audit. Peterborough.

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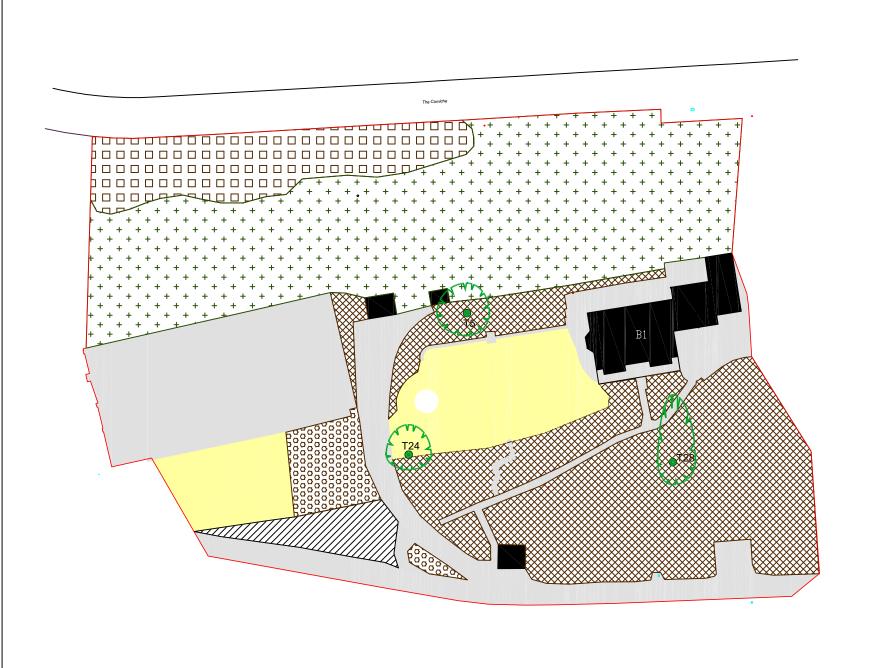
Protection of Badgers Act (1992). http://www.legislation.gov.uk/ukpga/1992/51

Stace (2010). New Flora of the British Isles (Third Edition). Cambridge University Press

The Conservation of Habitats and Species Regulations (Habitats Regulations) 2017. http://www.legislation.gov.uk/uksi/2017/1012/made

Wildlife and Countryside Act (as amended) 1981. http://jncc.defra.gov.uk/page-1377

Figures



Legend

Site Boundary

Building

Hardstanding

Amenity Grass

Scrub/Ruderal

Bare Ground

Ephemeral

Ornamental Planting

Waterbody

Tree



Job Reference : J20877_P3

Project Title: Sunnyside

Drawing Title Figure 1: Phase 1 Habitat Map

Date: 08-09-20 Checked : JJ

Drawn : GN Approved : GN

Status : Final Scale : NTS

GES Greenspace Ecological Solutions

Appendices

APPENDIX A – PHOTOGRAPHS

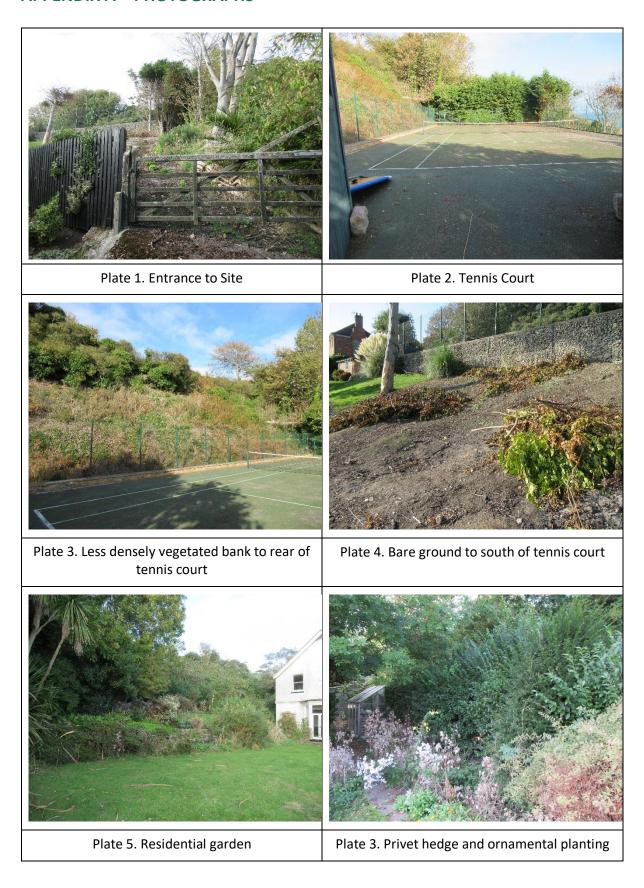




Plate 4. Densely vegetated bank to north of house



Plate 6. Residential garden viewed from North



Plate 7. Eastern elevation of Main House



Plate 8. Northern elevation of Main House



Plate 9. Conservatory of Main house



Plate 10. Converted Attic in Main House



APPENDIX B

Categories of Bat Roost Potential

Roost type Level of potential	Summer Roost used by Non- Breeding Bats	Maternity Roost	Hibernation Roost	
Confirmed roost	Presence of bats or evidence of bats identified. Confirmation of a roost will likely require further surveys.			
High	Building/Structure or tree with multiple opportunities for one or more species of roosting bat. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree with multiple roosting opportunities for pregnant female bats and young pups. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats throughout the winter months.	
Moderate	Building/Structure for tree with some opportunities for roosting bats. Preferable orientation. Connectivity to moderate to high quality foraging habitat available.	Building/Structure or tree with some roosting opportunities for pregnant female bats and young pups. Good orientation. Good connectivity to moderate to high quality foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats for some of the winter months. Moderate connectivity to suitable foraging areas.	
Low	Building/Structure or tree with limited opportunities for roosting bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited opportunities for breeding bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited potential to support hibernating bats due to instable environmental conditions.	
Negligible	Building/Structure or tree with no or very limited opportunities for roosting bats. Little to no connectivity to foraging habitat	Building/Structure or tree with no or very limited opportunities for breeding bats. Little to no connectivity to foraging habitat.	No suitable roosting opportunities for hibernating bats.	

APPENDIX C

Minimum Number of Bat Surveys Required in Most Instances

Negligible	Low roost potential	Moderate roost potential	High roost potential*
Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.	Structures: 1 survey visit. 1 dusk emergence or pre-dawn re-entry survey ^a . To be conducted during May – August. Trees: Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.	2 separate survey visits. 1 dusk emergence survey and 1 pre-dawn re-entry survey ^b . To be conducted during May-September with at least one of the surveys May – August.	3 separate survey visits. At least 1 dusk emergence survey and a separate pre-dawn re- entry survey. The third visit could be either a dusk or dawn survey ^b . To be undertaken during May-September with at least two of the surveys between May and August.

^a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case by case basis. If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; It is recommended that surveys are spaced out at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered one visit. If there is potential for a maternity colony, then consideration should be given to seasonal detectability and the ecologist should use their professional judgement to design the most appropriate survey regime.

^{*}For the purpose of this exercise a confirmed roost is considered under the criteria of 'High roost potential'