Flour Mill, Ashford, Kent

Preliminary Ecological Appraisal and Water Vole Survey Revision A

A Report for Oliver Davis Homes Ltd.

December 2021

Greenspace Ecological Solutions

www.greenspace-ecology.co.uk

info@greenspace-ecology.co.uk

Flour Mill, Ashford,

Kent

Preliminary Ecological Appraisal and Water Vole Survey Revision A

December 2021

Controlled Copy

01 of 02

01 Oliver Davis Homes Ltd.

02 Greenspace Ecological Solutions Ltd

Report Contributors: Lottie Gibbons and Heather Clayson ACIEEM.

Technical review by: Charlotte Bell MCIEEM

Report Number J21047

Greenspace Ecological Solutions Ltd.
Suite H3, Blackham Court,
Withyham, East Sussex,
TN7 4DB

Tel: 01892 457062
www.greenspace-ecology.co.uk
info@greenspace-ecology.co.uk

CONTENTS

1 PROJECT OVERVIEW

Client: Oliver Davis Homes Ltd.

Site Address: Flour Mill, East Hill, Ashford, TN24 8PA

Attending Ecologists: Heather Clayson ACIEEM
Lottie Gibbons

Survey Dates: PEA - 30th April 2021;
Water vole – 25th June and 31st August 2021

Site Proposals: Conversion of existing building into new residential dwellings and the erection of two additional residential blocks comprising 72 apartments, with associated gardens access, parking, and infrastructure.

Associated Planning Reference Number: Not yet submitted.

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Desk Study:	Kent and Medway Biological Records Centre (KMBRC) Magic.defra.gov.uk
Site Plans:	Hollaway Studio

2 NON-TECHNICAL SUMMARY

2.1 In response to the proposed development at Flour Mill, Ashford, a Preliminary Ecological Appraisal (PEA) of the Site has been undertaken, the results of which serve to determine the Site's potential to support habitats and species of conservation concern.

2.2 There is one statutory designation within 2km of the Site, Ashford Green Corridors Local Nature Reserve, which is located 0.4km from the Site.

2.3 There are six non-statutory designated sites within 2km of the Site. One, Great Stour Ashford to Fordwich Local Wildlife Site, is adjacent to the Site. Appropriate best practice pollution prevention measures will be detailed in a Construction Environmental Management Plan to ensure no significant negative effect on this site. Due to the spatial separation between the Site and the other designations, and limited scope of the proposed development, it is considered unlikely that the development would affect any other designated sites of conservation importance. For the same reasons, it is considered unlikely to affect any areas of ancient woodland or Habitats of Principal Importance on Section 41 of the Natural Environment and Rural Communities Act 2006.

2.4 Habitats within the Site are common and widespread and therefore no further botanical surveys are required to enable a robust assessment of their intrinsic ecological importance. It is recommended that trees should be retained and protected in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction' where possible. Should trees require removal, these should be replaced with native specimens of local provenance.

2.5 A single building (B1) is to be affected by the proposed development which has been assessed as having 'High' suitability to support roosting bats and, in accordance with the current Bat Conservation Trust (BCT) guidelines (Collins, 2016), three separate dusk emergence and/or pre-dawn re-entry survey visits are required in order to ascertain whether the building supports any current bat roosts, as recommended in Section 6 of this report.

2.6 One tree (TR1) on Site was assessed as having 'Low' bat roost potential. It is considered likely that this tree will be retained and therefore would not require any further survey works, provided any artificial lighting required would avoid any light spill onto this tree. If the tree is to be felled, an endoscopic inspection of all the potential roosting features by or supervised by a licensed ecologist should be undertaken immediately prior to felling . All other trees within the Site are in good condition and no features suitable for roosting bats were recorded.

2.7 Lighting can be detrimental to bats' foraging and commuting behaviour and should be avoided within the Site, if possible. Any external lighting that is deemed necessary for the proposed redevelopment should be sensitive to the boundary trees and any post development bat roost features/boxes within the Site, avoiding direct illumination of them, for example through the use of directional and low-level/downward pointing lighting (light spill must only be at or below the horizontal plane), ideally of a colour temperature of 2700K or less, with no UV component and motion activated, where possible. All lighting should be sensitively designed in accordance with the industry standard Bats and Artificial Lighting in the UK guidelines (Bat Conservation Trust and Institutions of Lighting Professionals, 2018).

2.8 Great crested newts and reptiles are considered likely absent from the Site, due to the only suitable habitat present on site, consisting of the island area being isolated from other suitable habitat by the Stour and east Stour providing barriers to newt and reptile dispersal onto the Site.

2.9 Suitable bird nesting habitat exists within the Site and recommendations in regard to timings and methods of best practice for breeding birds have therefore been provided within this report.

2.10 Records of water voles within 2km of the Site were returned in the desk study but no evidence of wate vole or otter was found during the further surveys; precautionary recommendations have been included in this report.

2.11 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.

2.12 Should at any point 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.

2.13 In accordance with the requirement of the National Planning Policy Framework (NPPF) 2021, 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 at Flour Mill, Ashford, a Preliminary Ecological Appraisal (PEA) has been undertaken of the land and buildings to be affected (henceforth referred to as 'the Site'), as well as Phase 2 species-specific surveys undertaken in relation to water voles *Arvicola amphibius* and otters *Lutra lutra*. Proposals are understood to involve the conversion of the existing 'Flour Mill' building into new residential dwellings, in addition to the erection of two new residential blocks, creating a total of 72 apartments, with associated gardens, parking, and infrastructure.

3.1.2 The Site's potential to support protected species and habitats has been assessed and appropriate recommendations have been provided. The buildings and trees have been assessed for their suitability to support roosting bats. Waterbodies within 250m of the Site, where access was available, have been subject to a Habitat Suitability Index (HSI) assessment to assess their suitability to support great crested newts (GCN) *Triturus cristatus*. The watercourse within and adjacent to the Site was subject to a water vole and otter survey. Ecological features of interest are depicted in Figure 1.

3.2 Site Location

3.2.1 The Site is located within the town of Ashford, Kent, approximately 0.7km from Ashford Town Centre at Ordnance Survey (OS) Grid Reference: TR 014 427. The geographical location of the Site is depicted in Image 1.

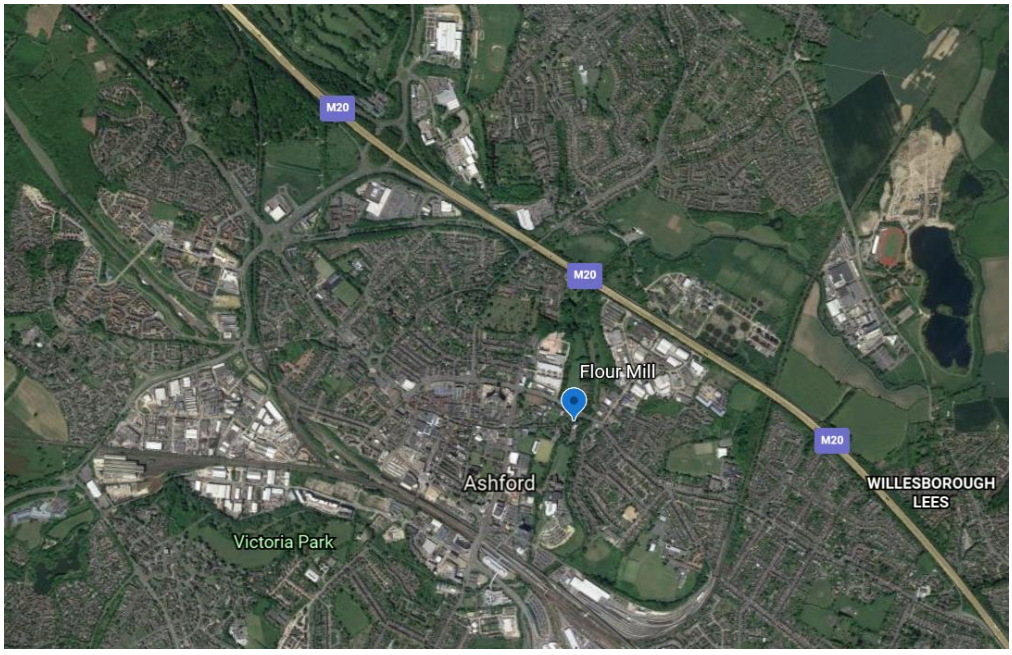


Image 1 – Site Location of Flour Mill

3.3 Site Description

3.3.1 The Site occupies approximately 1.1 hectares (ha) and comprises a five to seven-storey building set within areas of hardstanding, scrub and semi-improved grassland. The East Stour River runs along the length of the eastern Site boundary and is a tributary of the Great Stour, Kent. The Great Stour runs along the Site's western boundary and is joined by the East Stour River at the northern end of the Site. Two bridges over the river provides access to the building (B1) on the Site. The Site is bordered by North Park to the south and Ashford Green Corridor, a local nature reserve, is present 0.4km north of the Site boundary.

3.3.2 Mace Lane (A292) is adjacent to the north of the Site and is the primary access road of Ashford Town Centre. The majority of residential dwellings are present to the east of the Site, beyond the East Stour River, with Mill court residential development located to the southeast of the Site boundary. Local businesses, including Star Inn (Grade II Listed Building), are present to the west of the Site, with Ashford School and access to the Ashford town centre present northwest of the Site.

3.3.3 The wider landscape is one of residential dwellings with associated gardens, agricultural land and scattered deciduous woodland. The M20 is present approximately 0.5km north of the Site boundary.

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 Habitats and Species Regulations 2017 (as amended) 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 details 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.
- 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."

- The Hedgerows Regulations Act 1997 serves to enforce under the Environment Act 1995, restrict the removal of hedgerows, or parts of hedgerows which exceed 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 is a criminal offence 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.
- The Wild Mammal (Protection) Act 1996 protects wild mammal species from certain cruel acts, including kicking, beating, nailing or otherwise impaling, stabbing, burning, stoning, crushing, drowning, dragging or asphyxiation of any wild mammal with intent to inflict unnecessary suffering. Crushing and asphyxiation are most likely to occur as a result of development proposals, should these works collapse any mammal burrows, or encounter wild mammals on site.

UK Planning Policy

- The recommendations of this report are in line with the key principles of the National Planning Policy Framework (NPPF) 2021 and Government Circular 06/05.
- In line with Policy ENV1 *Biodiversity* of the Ashford Borough Council Local Plan 2030 (Adopted February 2019) recommendations to ensure the conservation of species protected under the above legislation, as well as habitats of principal importance (HPI) listed under Section 41 (s41) of the NERC Act 2006; and the protection of designated sites and species have been included within this report. In addition, recommendations for opportunities to enhance biodiversity within the Site have also been provided in line with the 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;
- Assess the buildings and trees on-site for their potential to support roosting bats and nesting birds;
- Assess the river corridor for the presence/likely absence of water voles;

- Evaluate the potential for other protected species and any otherwise notable species to occur within the Site; and
- Provide appropriate recommendations for further surveys and mitigation where required.

3.6 Survey Constraints

3.6.1 External assessment of the habitat and building (B1) on Site was partially restricted due to limited access on the northeast of the Site as a result of overgrown vegetation. However, the remaining external assessment, in addition to an internal assessment of the building (B1), was considered sufficient to enable a robust preliminary assessment of the bat roosting potential of the building to be impacted, with further dusk emergence/pre-dawn re-entry surveys recommended. Furthermore, assessment of the remaining habitat on Site was considered sufficient to enable a robust preliminary assessment for protected and other notable species that may occur on Site.

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, extended to 5km for bats.

4.1.2 The following bodies were consulted for the desk study:

- Kent and Medway Biological Record 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 1 Habitat Survey: A Technique for Environmental Audit' (JNCC, 2016). The techniques applied during the survey involve 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 1981 (as amended) were also noted.

4.2.2 A map of the habitats and areas of interest (using a variation of the JNCC (2016) protocol for Phase 1 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. This involved assessing the suitability of the habitats present within the Site for these species as well as connectivity to the Site from other areas of potentially suitable habitat nearby.

Badger

4.2.4 Evidence of badger *Meles meles* activity within and adjacent to the Site was assessed by searching for signs such as:

- Presence of setts, indicated by suitably sized holes or burrows;
- Evidence of 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 trees, buildings or other structures were present within the Site, specific survey work was undertaken to assess their suitability to support roosting bats. In this instance, a high-powered torch was used to search for any potential bat roosting features.

4.2.6 Trees within the Site which were deemed likely to be affected by the proposed development were surveyed in accordance with current best practice guidance 'Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd Edition' (Collins, 2016). Trees were inspected for features such as splits, fissures, delaminated bark, heavy ivy *Hedera* sp. cover and woodpecker holes. Evidence of roosting bats 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. 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 presence of bats themselves). The results of a scoping survey enable the buildings and trees to be categorised as having 'Confirmed' roosts, 'High', 'Moderate', 'Low' or 'Negligible' suitability to support roosting bats. An outline of the adopted categorisation procedure for classifying bat suitability is presented in Appendix B.

4.2.8 In accordance with current best practice guidance (Collins, 2016), the level of suitability determines the need or not for further emergence and/or pre-dawn re-entry surveys. Although left to the discretion of the appointed ecologist, in most instances Confirmed and High suitability buildings require three surveys, Moderate suitability requires two and Low suitability requires one evening emergence or pre-dawn re-entry survey visit(s). In accordance with the guidelines, trees that are to be impacted by the development proposals should also be subject to an appropriate level of survey effort determined by the categorisation of its roost potential. Trees with Low suitability do not require further surveys, but it may be appropriate to follow precautionary measures (such as an aerial inspection) immediately prior to felling/pruning. Greater detail on the minimum number of survey visit(s) recommended in most instances is presented in Appendix C.

Breeding 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.

Great Crested Newt

4.2.10 The Site was assessed for its potential to support GCN populations. Suitable terrestrial habitat for GCN includes long grass, tall ruderal, woodland and hedgerow borders, as well as wood and rubble piles that act as hibernacula. Aerial imaging and OS mapping was also assessed to look for potential linkages with offsite GCN aquatic habitat.

Hazel Dormouse

4.2.11 The Site was surveyed for suitable hazel dormouse *Muscardinus avellanarius* habitat, such as the presence of a well-connected understorey broadleaf habitat, hedgerows and suitable food sources such as oak *Quercus sp*., hazel *Corylus avellana* and other nut-bearing trees, fruiting trees and shrubs, flowers, and invertebrates.

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.

Water Voles and European Otters

4.2.13 The Site was assessed for its potential to support these aquatic species. Water voles *Arvicola amphibius* live along slow-flowing rivers, streams, and ditches, around ponds and lakes, and in marshes, reedbeds and areas of wet moorland, and require steep grassy banks to dig their burrows. Suitable otter *Lutra lutra* habitat includes clean rivers filled with fish and other prey species, with vegetated banks suitable for holt making.

Other Species

4.2.14 Consideration was given to the Site's suitability to support other protected and notable species.

4.3 Water Vole/Otter Survey

4.3.1 Two survey visits for water vole (and otter) were undertaken in line with The Water Vole Mitigation Handbook (Matthews and Chanin, 2016). The survey area was defined as the

proposed works area, plus 200m up and downstream from the proposed works area, on both stretches of the river that run through the Site, as depicted in Figure 2.

4.3.2 Signs of water vole were searched for including latrines, feed stations, pathways through vegetation, burrows, footprints and the field signs of other predators such as mink which may suggest their absence from the area. Signs of otters such as footprints, spraint, anal jelly, slides and larger pathways through vegetation were also searched for and any present, noted.

4.3.3 The first visit was undertaken on 25th June 2021 and the second on 31st August 2021. During the first visit the habitat was assessed from the top of the banks where access was possible; during the second visit, paddle boards were used to access the watercourse and check the banks of suitable habitat from the river level.

5 SURVEY RESULTS

5.1. Desk Study

Statutory Designated Sites

5.1.1 There are no statutory designated sites of international or national importance within 2km of the Site. However, the Site lies within the Upper Stour operational catchment area related to reducing the impacts of human activity and development on the hydrological character of the Stodmarsh Special Area of Conservation (SAC), located approximately 24km to the northeast.

5.1.2 There is a statutory designated site of country level importance, Ashford Green Corridors Local Nature Reserve (LNR), located adjacent to the southeast and southwest of the Site.

Non-statutory designated sites

5.1.3 Six non-statutory designated sites within 2km of the Site are presented in Table 1. The Site lies directly adjacent to the Great Stour on its eastern boundary.

Table 1 – Non-Statutory designated sites

Site Name	Distance from site
AS27 Great Stour (River), Ashford to Fordwich	Adjacent to the west of the Site
AS51 Bybrook Nature Reserve	1.2km
AS19 South Willesborough Dykes	1.5km
AS25 Ashford Warren	1.7km
Ashford Warren and Hoads Wood (KWT Reserve)	1.8km
AS44 Willesborough Lees and Flowergarden Wood	1.9km

KWT-Kent Wildlife Trust

Ancient Woodland

5.1.4 There are no areas of ancient woodland present within 2km of the Site.

NERC s41 Habitats of Principal Importance (HPI)

5.1.5 NERC s41 HPIs within 2km of the Site are presented in Table 2.

Table 2 – NERC s41 Habitats of Principal Importance within 2km of the Site.

Habitat Type	Distance from site
Deciduous woodland	0.4km N
Traditional orchard	0.9km SE

Protected or Notable Species

Bats

5.1.6 Bat species of conservation concern of potential relevance to the Site are provided in Table 3.

Table 3 – Bat Species Recorded within 5km of the Site.

Common Name	**Scientific Name**	**Legal Protection / Conservation Priority Status**
Brown long-eared bat	*Plecotus auritus*	HabDir: A4; Berne: A2; Bonn: A2; BAP; S41; WCA5; KRDB2
Daubenton's bat	*Myotis daubentonii*	HabDir: A4; Berne: A2; Bonn: A2; WCA5
Natterer's bat	*Myotis nattereri*	HabDir: A4; Berne: A2; Bonn: A2; WCA5; KRDB2
Noctule bat	*Nyctalus noctula*	HabDir: A4; Berne: A2; Bonn: A2; BAP; S41; WCA5; KRDB2
Common pipistrelle bat	*Pipistrellus pipistrellus*	HabDir: A4; Berne: A3; Bonn: A2; WCA5
Soprano pipistrelle bat	*Pipistrellus pygmaeus*	HabDir: A4; Berne: A2; Bonn: A2; BAP; S41; WCA5
Serotine bat	*Eptesicus serotinus*	HabDir: A4; Berne: A2; Bonn: A2; WCA5; KRDB3

5.1.7 Several bat roosts (common pipistrelle, brown long-eared, Natterer's, serotine, and Daubenton's bat) were also recorded within 5km of the Site, including hibernation and maternity roosts. The closest protected species mitigation licence for bats (approximately 0.5km from the Site) was granted for the destruction of a resting place for common pipistrelle in 2011. Additionally, a protected species mitigation licence for bats (approximately 0.9km from the Site) was also granted for the destruction of a resting place for brown long eared bat, common pipistrelle and soprano pipistrelle in 2017.

Other Mammals

5.1.8 Other mammals of conservation concern of potential relevance to the Site are presented in Table 4.

Table 4 – Other mammal species recorded within 2km of the Site.

Common Name	Scientific Name	Legal Protection / Conservation Priority Status	Closest record	Date
European otter	*Lutra lutra*	BAP; RedList Global; S41	1.7km E	2014
European water vole	*Arvicola amphibius*	BAP; S41	0.7km SW	2017
Hazel dormouse	*Muscardinus avellanarius*	BAP; S41	1.6km NW	2011

5.1.9 West European hedgehog *Erinaceus europaeus* was also recorded within 2km of the Site, which is a species of principal importance (SPI) under S41 of the NERC Act.

5.1.10 The closest protected species mitigation licence for other mammals (approximately 1.5km from the Site) was granted for the destruction of a breeding and resting site for dormice in 2010.

Birds

5.1.11 Bird species of conservation interest of potential relevance to the Site and the extent of the proposed development are presented in Table 5.

Table 5 – Relevant bird species recorded within 2km of the Site.

Common Name	Scientific Name	Legal Protection / Conservation Priority Status
Black redstart	*Phoenicurus ochruros*	Berne: A2; BoCC4: Red; Bonn: A2; KRDB1; WCA1
Common sandpiper	*Actitis hypoleucos*	Berne: A2; BoCC4: Amber; Bonn: A2
Cuckoo	*Cuculus canorus*	BAP; Berne: A3; BoCC4: Red; S41; KRDB2
Dunnock	*Prunella modularis*	BAP; Berne: A2; BoCC4: Amber; S41
Green sandpiper	*Tringa ochropus*	Berne: A2; BoCC4: Amber; Bonn: A2; WCA1
Grey wagtail	*Motacilla cinereal*	Berne: A2; BoCC4: Red
House martin	*Delichon urbica*	Berne: A2; BoCC4: Amber
House sparrow	*Passer domesticus*	BAP; BoCC4: Red; KRDB2; S41
Kingfisher	*Alcedo atthis*	Berne: A2; BoCC4: Amber (subsp. Red); BirdsDir: A1; WCA1

Mallard	*Anas platyrhynchos*	Berne: A3; BoCC4: Amber; Bonn: A2; BirdsDir: A2.1
Mistle thrush	*Turdus viscivorus*	Berne: A3; BoCC4: Red; BirdsDirA2.2
Nightingale	*Luscinia megarhynchos*	Berne: A2; BoCC4: Red; Bonn: A2; KRDB3
Redwing	*Turdus iliacus*	Berne: A3; BoCC4: Red; BirdsDirA2.2; WCA1
Snipe	*Gallinago gallinago*	Berne: A3; BoCC4: Amber; Bonn: A2; BirdsDir: A2.1; KRDB1
Song thrush	*Turdus philomelos*	BAP; Berne: A3; BoCC4: Red; BirdsDir: A2.2; WCA1
Starling	*Sturnus vulgaris*	BAP; BoCC4: Red; BirdsDir: A2.2; S41; KRDB2
Stock dove	*Columba oenas*	Berne: A3; BoCC4: Amber; BirdsDir: A2.2
Swift	*Apus apus*	Berne: A3; BoCC4: Amber
Tree sparrow	*Passer montanus*	BAP; Berne: A3; BoCC4: Red; KRDB2; S41

Herpetofauna

5.1.12 Herpetofauna species of conservation concern of potential relevance to the Site are presented in Table 6.

Table 6 – Herpetofauna species recorded within 2km of the Site.

Species	**Scientific Name**	**Legal Protection / Conservation Priority Status**	**Closest Record**	**Date of Closest Record**
Common lizard	*Zootoca vivipara*	Bern_III, WCA5(p)	0.8km N	2019
Grass snake	*Natrix natrix*	Bern_III, WCA5(p)	1.3km NE	2020
Great crested newt	*Triturus cristatus*	ECH_II, Bern_II, WCA5, CRoW	1.7km NE	2014
Slow worm	*Anguis fragilis*	Bern_III, WCA5(p)	0.4km S	2015

5.1.13 The closest protected species mitigation licence for amphibians (approximately 1.5km from the Site) was granted for the damage and destruction of a resting place for GCN in 2017.

5.1.14 The closest GCN survey licence return (England) found GCN to be present approximately 1.6km northeast of the Site boundary in 2014. An additional GCN licence return (England) also found GCN to be present approximately 1.8km northwest of the Site boundary in 2016.

5.1.15 Common toad *Bufo bufo* and common frog *Rana temporaria* were also recorded within 2km of the Site, both of which are SPIs under S41 of the NERC Act.

5.2. Phase 1 Habitat Survey

5.2.1. The following habitat types were recorded within the Site:

- Trees/Semi-improved grassland/Scrub mosaic
- Ephemeral Short Perennial
- Introduced Shrub
- Scattered Broad Leaf Trees
- Hardstanding
- Bare Ground
- River (The Great Stour and East Stour River)
- Riparian vegetation
- Buildings

Trees/ Semi-improved grassland/Scrub mosaic

5.2.2. The Site is divided by the East Stour River in the northern part of the Site, forming a large separate island accessible via a wooden bridge. The area comprises a semi-improved grassland/scrub mosaic with scattered tree species, including beech *Fagus sp*. and sycamore *Acer pseudoplatanus*. Rose bushes *Rosa sp*. are also present in the northeast of the island. Grass species present include cock's-foot *Dactylis glomerata* and red fescue *Festuca rubra*. Herbaceous species present include common ivy *Hedera helix*, thistle *Cirsium sp*., white clover *Trifolium repens.,* common nettle *Urtica dioica*, white dead nettle *Lamium album*, Spanish bluebell *Hyacinthoides hispanica*, dandelion *Taraxacum officinale agg*, cleavers *Galium aparine*, cow parsley *Anthriscus sylvestris* and ribwort plantain *Plantago lanceolata*. The area is locally dominated by bramble *Rubus sp.*

5.2.3. Scattered debris present, including a rubbish pile located in the northwest of the island and a chipping pile located in the centre of the island. In addition, multiple tree stumps are spread across the island.

5.2.4. Wooden platforms hidden under dense scrub are present in the southeast of the Site.

Ephemeral Short Perennial

5.2.5. A small area of ephemeral short perennials is present in the northwest of the Site, to the southwest of the building. Grass species present include cock's-foot and Yorkshire fog *Holcus lanatus*. Herbaceous species present include an abundance of clovers and moss *Bryophyta sp*., frequent common vetch *Vicia sativa* and occasional dandelion, and red dead nettle *Lamium purpureum.*

Introduced Shrub

5.2.6. Areas of introduced shrub are present along the north and northwest of the Site, adjacent to the main building. Laurel *Laurus nobilis* was recorded.

Scattered Broad Leaf Trees

5.2.7. Mature and semi-mature trees are present within the Site. Tree species present in the north of the Site include an abundance of buddleia *Buddleja davidii* and laurel. The occasional elder *Sambucus nigra* and maple and rarely, conifer *Pinophyta sp* and European ash *Fraxinus excelsior*. Common ivy forms most of the undergrowth and covers multiple trees and parts of the building in the northeast. Common hazel *Corylus avellana*, silver birch *Betula pendula* and willow are present in the northwest of the Site adjacent to the main building, bordered by hardstanding and East Hill road. In the southeast of the Site, along the East Stour River bank, willow, maple and common hawthorn *Crataegus monogyna* are present. There is dense ivy coverage on the common hawthorn trees.

5.2.8. TR1 present in the south of the Site is a willow tree detailed in Table 7, with a full description of the tree and its suitability to support roosting bats.

Hardstanding

5.2.9. A paved brick area present in the north and northwest of the Site forms the access to the building, with a medium-sized brick-paved car park present in the south of the Site. The hardstanding is in good condition throughout and no botanical interest is associated with this habitat type.

Bare Ground

5.2.10. There are small areas of bare ground throughout the Site. In the northwest of the Site, in front of the building, is a medium-sized area of bare ground with sparse coverage of some grass species. The species present include cock's-foot, moss, red-dead nettle, red fescue and thistle. Another area of bare ground is present in the northwest/west of the Site, bordered by

hardstanding and adjacent to East Hill road. Scattered tree species are present, including hazel., willow and silver birch.

Riparian vegetation

5.2.11. Riparian vegetation is present in the southeast of the Site along the banks of the East Stour River. The area comprises dense scrub dominated by common nettle and scattered trees. Tree species present include willow., maple. and common hawthorn, with dense ivy coverage. Inspection of the area suggests suitable habitat for water voles.

Building

5.2.12. A single building (B1) was recorded within the Site. A more detailed description of the structure and its suitability to support roosting bats is provided in Section 5.3.

Running water (The Great Stour and East Stour River)

5.2.13. The Great Stour runs along the western part of the Site, between an area of hardstanding and bare ground, adjacent to the building (B1) on site. The river is surrounded by brick walls on both sides along the section that traverses the Site, and two bridges cross the river, providing access to the building. The Great Stour River runs slowly in a northerly direction and is joined by the East Stour River at the north of the Site.

5.2.14. The East Stour River lies adjacent to the eastern Site boundary. The river channel is fast flowing due to the presence of a brick channel alongside the mill building (B1) on Site, in a northerly direction. A more detailed description of the East Stour River's suitability to support water voles is provided in Section 5.3 and further investigated in Section 5.4.

5.3. Protected Species

Badger

5.3.1 The semi-improved grassland and scrub on Site offers limited suitable foraging opportunities for badgers; however, no badger setts or evidence of badgers was recorded during the survey and the Site offers limited opportunities for sett building.

Bat Roosting– Building (B1)

5.3.2 The building to be affected is a five-storey brick building with a central tower that extends a further two storeys above the main roof. The majority of the roof comprises a pitched structure and is tiled, with a flat roof covering the central tower. A metal dome roof covers the southeast extension of the building.

5.3.3 Multiple windows were present across the building with wooden window frames. The majority of the windows are broken or boarded up providing potential bat roosting opportunities and/or bat access into the interior of the building.

5.3.4 Ivy covers the northern and eastern elevations of the building. However, the eastern face of the building is inaccessible due to dense vegetation.

5.3.5 A balcony/curved courtyard is present overlooking the river on the northern elevation of the building. On the courtyard is a small wooden shed, comprised of felt roof (lifted in places) and wooden clad walls.

5.3.6 Potential Roosting Features (PRF) and access points for bats recorded externally include open access to the interior of the building through multiple broken windows and vents across the building. A ventilation feature on the north side of the building and a southwest facing ventilation tower on the roof on the southeast side of the building.

5.3.7 Internally, the building is predominately divided into five storeys, with the tower comprising of a further two inaccessible storeys. Floors are either concrete or timber. Numerous windows make sections of the building well-lit and airy. However, the stairwells and multiple rooms on the upper level had no natural light. The roof was lined with bitumen felt with no insulation observed.

5.3.8 Internal damage and debris were present throughout the building.

5.3.9 PRF and access points for bats recorded internally include open access to the interior of the building via broken windows, internal damage to the cavity walls and superficial cavities inside the building.

5.3.10 Pigeons *Columba livia domestica* were recorded within the upper floors of the building.

5.3.11 No evidence of roosting bats was found during the survey, but given the numerous PRFs and access points noted, the building was identified as having 'High' bat roost potential.

Bat Roosting– Trees

5.3.12 One tree (TR1) was present within the Site which was assessed as having bat roost potential. Details of TR1 are provided in Table 7 below.

Table 7 – Trees suitable to support roosting bats.

Tree Reference	Species	Estimated DBH (cm)	Description of Features	Level of Suitability	Action
TR1	Willow sp.	100cm	Tree is heavily pruned. Dense ivy covering the whole tree trunk, obscured vision of potential PRF's. Evidence of birds inside ivy.	Low	If the tree is to be felled (or lighting impacts on the PRFs cannot be avoided): precautionary measures (as deemed appropriate by the appointed ecologist) are required.

5.3.13 All other trees within the Site are in good condition and do not support any visible PRFs.

Bat Foraging and Commuting

5.3.14 The scattered mature trees across the Site and river corridors provide suitable commuting and foraging features for bats. Despite the urban nature of the Site's location, the surrounding landscape also provides some suitable foraging and commuting habitat in the form of areas of scrub, semi-improved grassland and scattered trees, and the continuing river corridors offsite to the north and south.

Birds

5.3.15 Suitable nesting habitat is present in the form of scattered trees, scrub, and semi-improved grassland. There is evidence of bird's nesting in the tree line and willow TR1 present in the southeast of the Site. The building (B1) on site offers further suitable nesting habitat and internal access is present through broken/missing windows. Pigeons were recorded nesting in the upper floors of the building on site, suggesting ease of access for other bird species. Recommendations for sensitive timing/working practices in relation to bird species are given in Section 6 below.

Great Crested Newt

5.3.16 The terrestrial habitat on site, including scrub, semi-improved grassland and debris offers foraging and sheltering opportunities for GCN; however, no suitable waterbodies are present within the footprint of the Site (or within 250m). There are records of GCN present within 2km of the Site . However, no evidence of GCN were recorded during the survey.

5.3.17 The East Stour River and Great Stour are considered to be too fast flowing to be suitable aquatic habitat for GCN and will act as a barrier to GCN dispersal onto the Site. Therefore, GCN are considered likely absent from the Site.

Hazel Dormouse

5.3.18 No evidence of dormice was recorded during the survey and only small, isolated areas of suitable habitat on-site, including scrub and scattered trees, offer shelter and foraging habitats for hazel dormouse. Whilst there are records of dormice within 2km of the Site, given the limited quality and extent of habitats present and limited connectivity to dormouse habitat offsite, the Site is considered to offer very limited potential for this species and they considered are likely absent from the Site.

Reptiles

5.3.19 The semi-improved grassland, scrub and debris on site offer sheltering and foraging opportunities for reptiles. No evidence of reptiles was recorded during the survey. The desk study data report also returned records of common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and slow worm *Anguis fragilis* from the surrounding 2km. The East Stour River and Great Stour will act as a barrier to reptile dispersal onto the Site. Therefore, reptiles are considered likely absent from the Site.

Otter

5.3.20 The habitat on site offers limited suitable sheltering and foraging opportunities for otters. The desk study returned records of otters within the surrounding 2km. No signs of otter were identified during the Phase 1 survey. However, their presence within the Great Stour and/or East Stour Rivers which border the Site cannot be entirely ruled out.

Other species

5.3.21 The desk study data report recorded the presence of West European hedgehog *Erinaceus europaeus* within 2km of the Site boundary and the habitats on-site are considered suitable to support the West European hedgehog.

5.3.22 However, beyond those noted above, the survey recorded no evidence of other species of conservation concern within the Site.

Water Vole

5.3.23 The habitat on and adjacent to the Site offers suitable sheltering and foraging opportunities for water voles. The desk study data report returned records of water voles within the

surrounding 700m of the Site. The area suggested for flood improvement works is sub-optimal habitat for water vole due to the lack of limited terrestrial habitat (car park) and shallow sloping bank on that section of the river.

5.3.24 The water vole surveys did not find any evidence of water vole or otter within the area surveyed.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Designated Areas

6.1.1 Ashford Green Corridors LNR, located 0.4km from the Site, is the only statutory designated Site within 2km of the Site.

6.1.2 Ashford Green Corridors LWS, a non-statutory designated Site, is adjacent to the west of the Site.

6.1.3 Best practice pollution guidelines will be implemented and a Construction Environmental Management Plan (CEMP) will be produced to ensure the protection of the adjacent LWS and any hydrologically connected designated Sites.

6.1.4 As the site falls within the Upper Strour operational catchment area related to water quality within the Stodmarsh SAC, demonstration that nutrients discharged into the Stodmarsh system will be net zero will be required once the finalised plans are available for this aspect of the proposed development.

6.2 Ancient Woodland

6.2.1 There are no areas of ancient woodland within 2km of the Site boundary. Therefore, the proposed development will have no detrimental impact on ancient woodland.

6.3 Habitats and Botanical Species of Interest

6.3.1 The NERC s41 HPI 'River' is on and adjacent to the Site. Best practice pollution prevention measures and a CEMP will be implemented to ensure no significant negative effect on this habitat.

6.3.2 The NERC s41 HPI 'deciduous woodland' exists 0.5km to the north of the Site's boundary. This habitat is not to be affected by the works.

6.3.3 Where necessary, trees should be protected in accordance with the British Standard 5837:2012 Trees in relation to design, demolition, and construction. An example of the tree protection measures is provided in Figure 3.

6.4 Badger

6.4.1 No evidence of badgers was identified within the Site and no further surveys for badgers are required.

6.4.2 However, badgers are a highly mobile species and if works do not commence within 12 months of the date of the original survey, then an update badger survey of the Site should be carried out prior to works commencing.

6.4.3 In addition, any excavations that are created during the course of the construction that are greater than 1m in depth should either be covered over at night or should have at least one sloping side of no greater than a 45o angle to enable any badgers or other mammals that may fall in to escape unharmed. The excavations should also be checked each morning and the appointed ecologist contacted for advice if efforts to enable the badger or any other animal to escape prove futile. .

6.5 **Bats – Roosting**

Buildings

6.5.1 When considering the nature of the PRFs within the building, the building on site is considered to offer **'High'** suitability to support roosting bats.

6.5.2 As conversion of the building has the potential to result in the loss and/or disturbance of a bat roost, no works to the building should be conducted, until further surveys for bats have been undertaken.

6.5.3 In accordance with the Bat Conservation Trust's (BCT) Bat Survey Good Practice Guidelines (Collins, 2016), three dusk emergence or pre-dawn re-entry surveys are recommended to determine presence or likely absence of roosting bats for buildings with '**High**' suitability.

6.5.4 The emergence/re-entry surveys should be undertaken in suitable weather conditions between May and August inclusive. To ensure a robust data set is collated, this survey must be undertaken by a team of suitably experienced ecologists using electronic bat detectors.

6.5.5 The information obtained from the emergence/re-entry surveys will serve to inform the need or not to undertake further surveys and the need or not to obtain an appropriate licence from Natural England for the works to proceed lawfully.

Trees

6.5.6 A single tree (TR1) was identified as having 'Low' suitability to support roosting bats. Currently it is understood from proposed site plans that TR1 will be retained as part of the proposed development. If this changes and it is to be removed, then TR1 should be climbed and inspected by (or supervised by) a suitably licensed bat ecologist immediately prior to felling. The PRFs identified on the tree should be inspected with an endoscope for evidence of

roosting bats. Should evidence of roosting bats be recorded, further surveys, mitigation and an appropriate licence from Natural England will likely be required in order to permit felling.

6.6 **Bats – Foraging and Commuting**

6.6.1 The habitats present on the Site provide foraging and commuting opportunities for bats. Due to the proposed footprint of the proposed development, largely lying within existing areas of hardstanding and buildings, it is considered that the direct impacts on suitable habitat, will be minimal. As a result, bat activity surveys are not required in this instance.

6.6.2 However, as lighting can be detrimental to bats using vegetation and surrounding habitats for foraging and commuting, any external lighting proposed for the development should be sensitive to the boundary commuting/foraging features, such as mature trees, ponds and the river corridors, avoiding direct illumination of them, for example through the use of directional and low-level lighting/downward pointing lighting (light spill must only be at or below the horizontal plane), ideally of a colour temperature of 2700K or less, with no UV component and motion activated, where possible. All lighting should be sensitively designed in accordance with the industry standard Bats and Artificial Lighting in the UK guidelines (Bat Conservation Trust and Institutions of Lighting Professionals, 2018 available at the following link; https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/.

6.7 **Birds**

6.7.1 Suitable nesting habitat exists within the Site in the form of scrub, scattered trees, riparian vegetation and buildings.

6.7.2 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.

6.7.3 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 any nest, or works that have potential to destroy any nest(s), must not proceed until the eggs have hatched and the chicks fledged, or the nest is deemed by a suitably experienced ecologist to have been abandoned.

6.8 **Water voles and Otters**

6.8.1 Although no evidence of otters or water voles was found during the surveys, in light of the recent and nearby presence of the desk study records for water vole and the suitability of the watercourse for the species, the following precautions should be undertaken during any

required works to the riverbanks. Any vegetation clearance should be undertaken under supervision by a suitably experienced ecologist to check for the presence of burrows, latrines and feeding stations. Should any be found, the works may need to stop and appropriate mitigation and licensing put into place. Works to the riverbank should be kept to the essential minimum, and any sections of river that are not to be directly impacted should be protected from unintentional impacts during construction through the use of suitable signage and protective fencing, such as Heras (or similar). Furthermore, industry standard avoidance measures to prevent pollution or excess run-off as a result of the proposed development should be implemented to avoid adverse impacts to the condition of the LNR, as well as to the species it supports.

6.9 Other species

6.9.1 Beyond those noted above, there are no obvious and immediate issues regarding other protected species on the Site and no further surveys to determine the presence of other protected species are required in this instance.

6.9.2 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

7.1.1 Opportunities to include biodiversity enhancements within the Site exist and in accordance with the requirements of the NPPF 2021 the following recommendations are considered appropriate for the Site:

- The installation of bird boxes within the newly created and refurbished buildings and/or on trees within the Site would benefit a diversity of bird species. Boxes should be selected from either integrated boxes such as those available from www.habibat.co.uk for inclusion within the proposed structures or open fronted and hole fronted nest boxes for mounting on trees. To maximise suitability, boxes should be installed on sheltered aspects close to vegetation at a height of 2-3m, preferably on north, north-east or north-west facing elevations.
- The incorporation of a wildlife-friendly planting scheme, using native plant species, would be of benefit to invertebrates and subsequently species such as birds and bats.
- Any tree planting should be undertaken using native species such as pedunculate oak *Quercus robur,* small leaved lime *Tilia cordata,* black poplar *Populus nigra*, wild service tree *Sorbus torminalis* or similar.
- The creation of dense, native scrub vegetation along the riverbanks across the Site would enhance opportunities within the Site for several species by providing cover, refuge and foraging opportunities and discouraging human disturbance along the riverbank.
- The creation of wildflower grassland on the verge of the river corridor (where suitable riparian vegetation not already present) would also enhance the Site for wildlife.
- Further enhancements regarding recommendations for bats would be best provided upon completion of the further surveys recommended above.

REFERENCES

Amphibian and Reptile Groups of the United Kingdom (ARG UK) (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index.

Chartered Institute of Ecology and Environmental Management (CIEEM). (2017). Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester.

Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). Bat Conservation Trust, London.

Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin.Mammal Society, London

English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature. Peterborough.

Gent, T. & Gibson, S. (2003) The Herpetofauna Workers Manual Joint Nature Conservation Committee (JNCC). Peterborough.

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

Institution of Lighting Professional (ILP) (2018). Guidance Note 08/18: Bats and Artificial Lighting in the UK, Bats and the Built Environment Series.

JNCC (2010). Handbook for Phase 1 Habitat Survey; A Technique for Environmental Audit. Peterborough.

Natural Environment and Rural Communities (NERC) Act (2006). http://www.legislation.gov.uk/ukpga/2006/16/contents

National Planning Policy Framework (NPPF) (2021). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf

Office of the Deputy Prime Minister (ODPM) Circular 06/2005. Biodiversity and Geological conservation – Statutory Obligations and their Impact within the Planning System. ODPM, London.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10(4), 143-155.

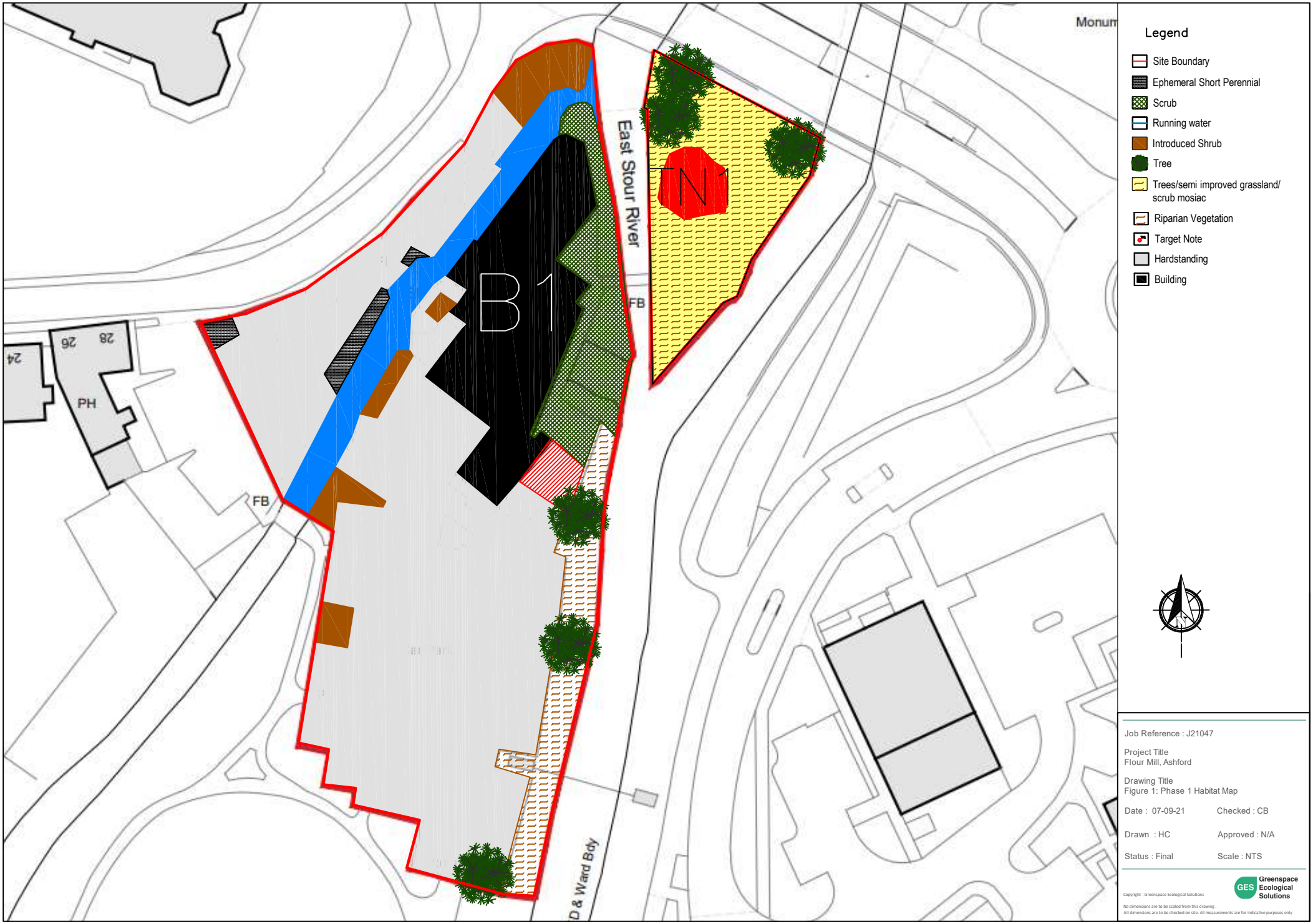
Protection of Badgers Act (1992). http://www.legislation.gov.uk/ukpga/1992/51

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

The Conservation of Habitats and Species Regulations (Habitats Regulations) 2017 (as amended). http://www.legislation.gov.uk/uksi/2018/1307/contents/made

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

Figures



Job Reference : J21047

Project Title
Flour Mill, Ashford

Drawing Title
Figure 1: Phase 1 Habitat Map

Date : 07-09-21 Checked : CB

Drawn : HC Approved : N/A

Status : Final Scale : NTS

Greenspace Ecological Solutions

Project Title : Flour Mill, Ashford

Job Reference : J21047

Drawing Title : Figure 2 - Water Vole Survey Area

Date : 31-08-21

Status : Final

Scale : NTS

Drawn : HC

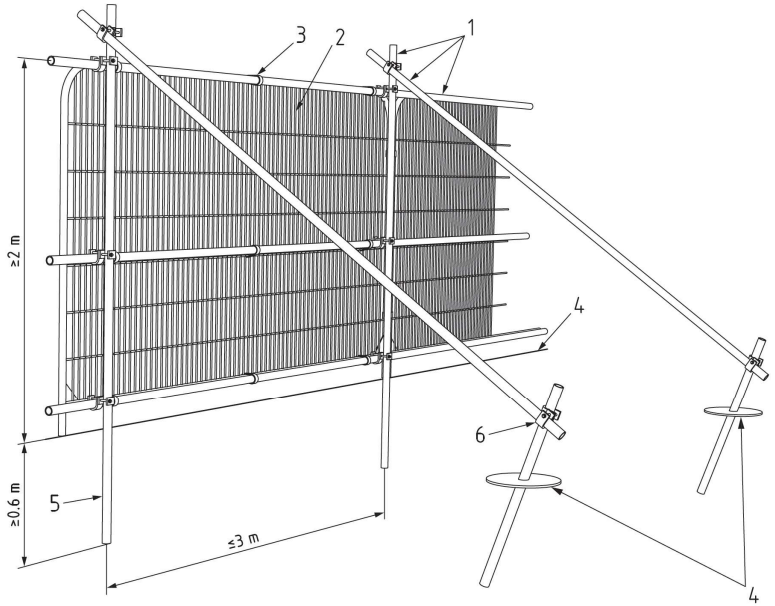
Checked : GN

Approved : N/A

Legend

- Works Area
- Adjacent Stream
- Survey Area Upstream
- Survey Area Downstream

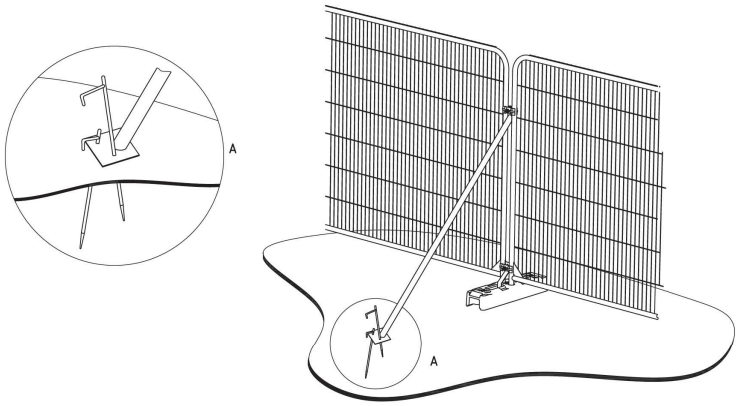
Default specification for protective barrier



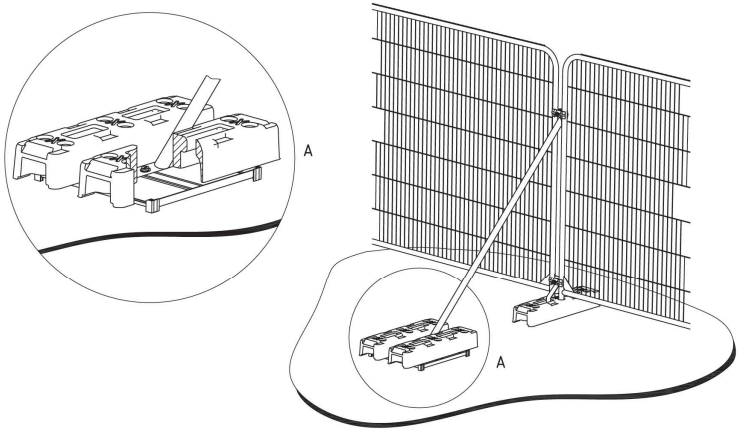
Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Job Reference : J21047

Project Title
Flour Mill, Ashford

Drawing Title
Figure 3: Tree Protection Measures

Date : 07-09-21 Checked : CB

Drawn : HC Approved : N/A

Status : Final Scale : NTS

Appendices

APPENDIX A – PHOTOGRAPHS

Plate 1. B1- High suitability to support roosting bats, internal view. Gaps under remaining insulation and between insulation and timber frame.

Plate 2. B1- High suitability to support roosting bats, internal view. Cavities present in and behind walls, blocked from sunlight.

Plate 3. B1- High suitability to support roosting bats, internal view. Additional cavities present in and behind walls, blocked from sunlight.

Plate 4. B1- High suitability to support roosting bats, internal view. Gaps between bitumen felt lining and timber frame and gaps underneath internal felt lining.

Plate 5. B1- High suitability to support roosting bats, internal view. Holes in bitumen felt lining.

Plate 6. B1- High suitability to support roosting bats, internal view. Cavities in walls leading into the roof.

Plate 7. B1- High suitability to support roosting bats, internal view. Damage to internal walls; small hole in wall.

Plate 8. B1- High suitability to support roosting bats, internal view. Damage to internal walls; multiple holes in wall below window.

Plate 9. B1- High suitability to support roosting bats, internal view. Potential access into roof, above plasterboards through hole in the ceiling from unused lights and roof access.

Plate 10. B1- High suitability to support roosting bats, external view. Potential access through vents along the southeast of the building.

Plate 11. B1- High suitability to support roosting bats, external view. Broken windows and potential access through vents facing south west.

Plate 12. B1- High suitability to support roosting bats, external view. Large vent and ventilation tower on the roof of the southeastern section of the building. Ventilation tower faces to the southwest.

Plate 13. B1- High suitability to support roosting bats, external view. Multiple broken windows throughout the building. The top two floors of the tower are inaccessible. The majority of the building is five-storeys, with the tower adding an additional two storeys.

Plate 14. B1- High suitability to support roosting bats, external view. Broken windows along the northern face of the building. Common ivy covers the northern face of building. Not pictured; common ivy covering the eastern face of the building.

Plate 15. Hardstanding in front of the building (B1) in the west of the Site. Bridge over the river provides original access to the building (currently inaccessible through the pictured doorway).

Plate 16: The Great Stour, runs along the western boundary of the Site in a northerly direction. Access to the building (B1) on Site is provided by two bridges across the river.

Plate 17. Willow sp. (TR1) in the south of the Site, with dense ivy covering and evidence of bird's nesting in the ivy. TR1 was assessed as having 'Low' bat roost potential.

Plate 18. Trees/Semi-improved grassland/Scrub mosaic. Separate island in the northeast of the Site, divided from the rest of the Site by the East Stour River. Wooden platforms hidden under dense vegetation to the south east of the island.

Plate 19. Trees/Semi-improved grassland/Scrub mosaic. Separate island in the northeast of the Site, divided from the rest of the Site by the East Stour River. Tree stumps present across the island.

Plate 20. Trees/Semi-improved grassland/Scrub mosaic. Separate island in the northeast of the Site, divided from the rest of the Site by the East Stour River. Rubbish pile present in the northwest of the island.

Plate 21. Trees/Semi-improved grassland/Scrub mosaic. Separate island in the northeast of the Site, divided from the rest of the Site by the East Stour River. Area of semi-improved grassland.

Plate 22. Inaccessible area of the Stour River in the southeast of the Site, due to dense vegetation.

Plate 23. East Stour River and Building, view from footpath (outside of the Site boundary). Image of inaccessible area (southeast of Site) due to overgrown vegetation.

Plate 24. Building, view from footpath (outside of the Site boundary). Image of inaccessible area (southeast of Site) due to overgrown vegetation.

Plate 25. Wooden bridge providing access over the East Stour River to the separate island in the northeast of the Site.

Plate 26: East Stour River, running the length of the Site's eastern boundary in a northerly direction.

Plate 27. East Stour River, riparian habitat.

Plate 28. Area of hardstanding. Brick-paved car park in the south of the Site.

APPENDIX B - Categories of Bat Roost Suitability

Roost type / Level of suitability	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 and/or large numbers of bats. 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 suitability	Moderate roost suitability	High roost suitability*
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 suitability 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 suitability'