



L I Z A R D

Landscape Design and Ecology

ECOLOGICAL IMPACT ASSESSMENT

The Convent of Mercy, Hillside Drive, Gravesend

Convent building

On Behalf of: Sisters of Mercy

Planning Issue

Client:	Sisters of Mercy			
Project:	The Convent of Mercy, Hillside Drive, Gravesend Convent building			
Reference:	LLD3294-ECO-REP-001-01-EcIA			
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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.



LIZARD

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Sisters of Mercy to undertake an Ecological Impact Assessment of the proposed development of The Convent of Mercy, Hillside Drive, Gravesend (*Grid Reference*: TQ 65633 72863 – *hereafter referred to as 'the site'*). A Preliminary Ecological Appraisal of the site was undertaken on 19th of July 2024. Badger sett monitoring surveys and bat emergence surveys were recommended and subsequently undertaken in August / September 2024. An assessment of the ecological impact of the proposals was then undertaken using this baseline data.

The site encompasses a c.1.3 hectare (Ha) plot with a large convent building and associated outbuildings, hardstanding access and gardens with scattered trees and lines of trees. Habitats identified across the site represent broadly low ecological value and common and widespread floral species only were identified on site.

Monitoring of potential mammal holes did not provide any evidence of badgers on site, although foxes were recorded using the mammal holes and due to badgers being highly mobile, further checks on these will be required c. 1no. month ahead of work. Low value potential habitat for nesting birds, reptiles, hedgehogs, invertebrates and commuting and foraging bats was identified on site. Avoidance, mitigation and compensation measures with regard to these species have been built into the scheme in accordance with the mitigation hierarchy and BS42020: 2013.

Bat emergence surveys were undertaken in August / September 2024 and focused on the main convent building. Bat activity across the surveys was low/moderate including local commuting and foraging activity of common pipistrelle, noctule and brown long eared bat. An emergence of a single common pipistrelle from B01 was recorded on each of the 2no. bat emergence surveys. The results of the surveys confirmed the presence of 2no. day roosts of single common pipistrelles, within the roof around the emergence points highlighted in Image No. 01. The works to B01 would cause damage or destruction of a bat roost, and a licence shall likely need to be obtained from Natural England to allow works to progress. Recommended mitigation measures which would form part of that licence are detailed herein.

The site is located within the *Impact Risk Zone* of *Thames Estuary and Marshes SSSI / SPA / RAMSAR*, however development proposals are unlikely to meet the criteria which would require consultation with Natural England. Natural England advice for this location states that proposals for any net increase in residential units will have a likely significant effect on the qualifying features of the European Sites through increased recreational pressure. Natural England also states that the local authority has measures in place to manage these potential impacts through a strategic solution. Therefore, consultation with the LPA will be required to cooperate with such measures.

Once avoidance, mitigation, and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant**.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by Sisters of Mercy to undertake an Ecological Impact Assessment of the proposed development of The Convent of Mercy, Hillside Drive, Gravesend (*Grid Reference: TQ 65633 72863– hereafter referred to as ‘the site’*).
- 1.2 The scope of this assessment has been determined with consideration of best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) and the Biodiversity: Code of Practice for Planning and Development published by the British Standards Institute (BS 42020:2013).
- 1.3 An initial Preliminary Ecological Appraisal of the site was undertaken on 19th of July 2024. The following phase 2 survey work was recommended and subsequently undertaken:
- Badger Sett Monitoring; and
 - 2no. Bat emergence surveys of building B01.
- 1.4 A summary of the results of these surveys, potential impacts of the proposals, and details of avoidance, mitigation, and compensation measures have been detailed within this report. Residual impacts are then discussed once all mitigation and compensation measures have been taken into account.

Site Information

- 1.5 The site is located within the town of Gravesend in the county of Kent and encompasses a c. 1.3 Ha plot that includes a large convent building with associated outbuildings, hardstanding access and gardens with scattered individual trees and lines of trees. The site is bordered on all sides by residential development. Soil on site is described as freely draining slightly acid loamy soils.

Surrounding Landscape

- 1.6 The surrounding landscape is urban and dominated by residential development with the built mass of Gravesend extending out at least 1.4km in all directions. The river Thames is located c. 1.5km north of the site.

Development Proposals

- 1.7 It is understood that the proposals are for the redevelopment of the western half of the convent building into 3no. new dwellings and provision of sealed surface parking/access.

Report Aims

- 1.8 The aim of the baseline surveys and Ecological Impact Assessment has been to:
- *Describe baseline conditions at the site;*
 - *Determine the importance of features which may be impacted by the scheme;*
 - *Identify impacts of the proposed development and set out appropriate avoidance, mitigation, and compensation measures;*
 - *To identify any residual impacts;*
 - *To provide details of enhancements to be incorporated into the scheme;*
 - *Provide sufficient information to determine whether the project accords with relevant nature conservation policies and legislation, and where appropriate, to allow conditions or obligations to be proposed by the relevant authority.*

2.0 METHODOLOGY

2.1 Desk Study

2.1.1 The Multi-Agency Geographic Information for the Countryside (*MAG/C*) was consulted for all designated sites within a practicable zone of influence of the site. This included Local Nature Reserves (LNRs), National Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSIs) within a 2.0 km radius of the site, and international statutory designated sites including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsars (Wetlands of International Importance) within a 10.0 km radius of the site. Where SAC's designated for their bat interest are present this ZOI has been extended to 12.0 km in accordance with recent guidance (SDNP, 2020).

2.1.2 MAGIC was also used to provide information on all Priority Habitats within a 2.0 km radius of the site, and all records of granted European Protected Species Mitigation licences within a 1.0 km radius of the site.

2.1.3 Due to the smaller scale of the site and urban surrounds, a full records search from the local records centre was not proportionate to the predicted impacts of the scheme and so was not sought. This approach is in accordance with best practice guidance (CIEEM, 2020).

2.2 Preliminary Ecological Appraisal

2.2.1 The initial field survey was undertaken on 19th of July 2024 by a Suitably Qualified Ecologist (Sam Hall; Consultant Ecologist; Lizard Landscape Design and Ecology). Weather conditions were hot (c.29°C), with a light breeze (Beaufort Scale 1), 10% cloud cover and no rain.

- 2.2.2 The field survey comprised a walkover inspection of the site and immediately adjacent land and boundaries features, in which ecological features were noted and mapped in accordance with principles of the UKHabs-Professional Classification System (Butcher *et al*, 2023). A minimum mapping unit of 25.0 m² was used and habitats were identified to at least level 4 wherever practicable.
- 2.2.3 A list of plant species was compiled, together with an estimate of abundance (*Table No. 10*). In addition, Target notes (*Table No. 11*) were used to provide supplementary information on features which were particularly interesting or significant to specific construction proposals, or too small to map.
- 2.2.4 The survey methodology was extended to provide more detail in relation to the sites potential to support rare or protected fauna, as described by the *Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017)*. The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers' Manual (Gent and Gibson, 2003)* and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins (4th ed.), 2023)*.

2.3 Preliminary Bat Roost Assessment

- 2.3.1 A Daytime Bat Walkover (DBW) survey was undertaken on 19th of July 2024 by a suitably experienced surveyor (Sam Hall - Accredited Agent Under; Louise Barker (Bat Level 2 Class Licence; 2023-11422-CL18-BAT).
- 2.3.2 The Daytime Bat Walkover (DBW) survey entailed a slow walkover of the site, during which time the surveyor identified any structures, trees and other features that could be suitable for bats to roost in, and any habitats which could be suitable for bats to commute, forage, or swarm in.

- 2.3.3 During this survey any direct evidence of bats was searched for and recorded, such as grease marks, urine stains, bat droppings, feeding remains and dead / live bats. Furthermore, any structures or trees which offered features with the potential to support bats were noted. For trees this included the identification of features such as, but not limited to, cracks, crevices and holes naturally formed by trees. For structures this included the identification of features such as, but not limited to, slipped, missing or uneven tiles, gaps around the soffit / barge board, raised flashing.

Evaluation Criteria

- 2.3.4 All suitable bat habitat was assessed in accordance best practice criteria (Collins, 2023), which is outlined herein. During the survey, all trees within and immediately adjacent to the site were assessed using the following criteria:

Table No. 01 – Criteria for Assessing the Bat Roosting Suitability of Trees

Suitability	Description
None	Either no potential roosting features in the tree, or highly unlikely to be any.
FAR	Further assessment required to establish if potential roosting features are present in the tree.
PRF	A tree with at least one potential roosting feature present.

- 2.3.5 Furthermore, all structures were assessed externally, and internally wherever possible for their potential to support bats, using the following criteria:

Table No. 02 – Criteria for Assessing the Bat Roosting Suitability of Structures

Potential Suitability	Description
None	No habitat features on site likely to be used by any roosting bats at any time of year.
Negligible	No obvious habitat features on site likely to be used by roosting bats. However, some small uncertainty remains, as bats can use small and apparently unsuitable features occasionally.

Potential Suitability	Description
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these do not provide enough shelter, space, protection, appropriate conditions, or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat, but unlikely to support a roost of high conservation status, irrespective of species conservation status.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat, with the potential to support high conservation status roosts irrespective of species conservation status.
Confirmed	Direct evidence of bats identified.

- 2.3.6 Finally, an assessment of the winter hibernation potential of the structures was made, in accordance with the following criteria:

Table No. 03 – Criteria for Assessing the Winter Bat Roosting Suitability of Structures and Trees

Potential Suitability	Description
Low	No or very limited potential winter roosting habitat
Moderate	Non classic site
High	'Classic sites,' which offer stable humidity and consistent temperatures throughout the winter period, such as underground sites, cellars, tunnels etc.

2.4 Badger Walkover Survey

Initial Survey

- 2.4.1 The initial field survey was undertaken on 19th July 2024 by an experienced ecologist. The survey area covered the red line boundary of the site, and all land within a 30m radius (where access was available).
- 2.4.2 The survey area was systematically searched for any evidence of badger such as:
- *Setts;*
 - *Latrines;*
 - *Snuffle Holes;*
 - *'Push-unders' through boundary fencing;*
 - *Hair caught on fencing or sett entrances;*
 - *Prints left in mud or sand;*
 - *Mammal tracks.*
- 2.4.3 Any evidence was then mapped to allow the status and distribution of badger activity to be assessed.

2.5 Badger Sett Monitoring Survey

- 2.5.1 All potential setts identified on site were subject to a period of 21 days continuous monitoring between 22nd August and 17th September 2024. Setts were monitored using Campark T20 Wildcamera infrared camera which captured still images.
- 2.5.2 Where found, setts were categorised as follows:
- *Main Sett – Large setts with well-worn pathways between entrances. The sett is in continual use by badgers and is used by the dominant breeding female;*
 - *Annex Sett – Normally located within 150.0 m of the main sett and linked by well-worn pathways. Generally consist of many holes, however it may not be in use all of the time;*

- *Subsidiary Sett* – A smaller sett located further from the main sett with no obvious pathways linking to the main sett. The sett is likely to be disused for part of the year;
- *Outlier Sett* – Often a single hole which is used sporadically and may be used by rabbits and foxes when not in use.

2.5.3 Sett entrances were mapped, and their usage recorded. Entrances were classified as:

- *Active* – a hole clear of debris, with signs of recent excavation. Bedding balls may be present along with other signs of badger occupation;
- *Partially active* – a hole which shows no recent sign of occupation and may have debris and leaf litter to the entrance;
- *Disused* – a hole which is blocked with debris or collapsed, and which could only be used again with significant excavation.

2.6 Great Crested Newt (GCN) Survey

2.6.1 In accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001) a desktop search was undertaken to identify ponds within 500.0 m and 250.0 m of the site, which may have the potential to support breeding great crested newts (GCN) *Triturus cristatus*, using Ordnance Survey mapping, the *MAGIC* database and aerial photography. The pond P1 identified on site was subject to a Habitat Suitability Index (HSI) assessment during the initial site visit.

2.6.2 The *Habitat Suitability Index (HSI)* was developed by *Oldham et al (2000)* as a way of providing a numerical index allowing a direct comparison to be made between different water bodies. This index assesses ponds against ten different criteria, each of which have a bearing on the likelihood of great crested newts (GCN) being present in the pond under consideration.

2.6.3 The ten attributes against which ponds are assessed are:

- *Geographic Location;*
- *Pond Area (at its highest water level);*
- *Permanence;*
- *Water Quality;*
- *Perimeter Shading;*
- *Numbers of Wildfowl;*
- *Numbers of Fish Present;*
- *Pond Count (within a 1.0 km radius);*
- *Terrestrial Habitat (within 250.0 m);*
- *Macrophyte Coverage.*

2.6.4 The HSI results in a score between 1 and 0; with 1 being optimal conditions and 0 being unlikely to support a population. However, the index merely gives an indication as to whether a pond has the potential to support GCNs and is not a substitute for more detailed presence / absence surveys for protected species of amphibian. The evaluation criteria are shown in *Table No. 04* below.

Table No. 04 – HSI Evaluation Criteria

HSI Score	Pond Suitability
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

2.7 Bat Emergence Surveys

2.7.1 The existing convent B01 on site was assessed as offering moderate bat roost suitability and in accordance with the current best practise guidelines at the time of initial assessment (BCT, 2023), was subject to 2no. bat emergence surveys. The bat emergence surveys were completed in August and September 2024 and 4no. bat surveyors were assigned a point each to adequately cover all potential roost features.

- 2.7.2 The bat emergence surveys started 15 minutes before sunset and terminated approximately 1.5 hours after sunset. Data including species, behaviour and general patterns of activity were recorded throughout the survey.
- 2.7.3 Bats were identified using Echo Meter Touch Pro 2 bat detectors. Details of the survey visits can be found in *Table No. 05* below:

Table No. 05 – Bat Survey Details

<i>Date</i>	<i>Type</i>	<i>Surveyors</i>	<i>Weather</i>	<i>Sunrise / sunset</i>	<i>Start / finish</i>
22/08/24	<i>Dusk</i>	<i>FB, WM, AC, LC</i>	<i>17c, 10% Cloud, WF4/5</i>	<i>20:05</i>	<i>19:50 / 21:35</i>
17/09/24	<i>Dusk</i>	<i>LB, HS, CO, FB</i>	<i>18c, 60% Cloud, WF4</i>	<i>19:07</i>	<i>18:52 / 20:37</i>

Data Analysis

- 2.7.4 Sonogram analysis was undertaken using the Kaleidoscope programme.

2.8 Ecological Impact Assessment

- 2.8.1 The methodology for Ecological Impact Assessment (EclA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration, and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

2.8.2 The CIEEM guidelines (2018) state that ecological features should be considered within a 'defined geographical context'. The geographical frame of reference used to determine ecological importance in this assessment is detailed below:

- *International and European;*
- *National;*
- *Regional;*
- *County;*
- *District;*
- *Local;*
- *Site Level;*
- *Negligible.*

2.8.3 Based upon CIEEM guidance, value was determined with reference to the following factors:

- *Its inclusion as a Designated Site or other protected area;*
- *The presence of habitat types of conservation significance, such as Habitats of Principal Importance (NERC 2006);*
- *The presence (or potential presence) of species of conservation significance such as Species of Principal Importance (NERC 2006);*
- *The presence of other protected species such as those protected under The Wildlife and Countryside Act 1981;*
- *The sites social and economic value.*

2.8.4 The ecological impacts resulting from the proposals were then described according to a defined set of characteristics as defined within 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018). When describing impacts the assessment refers to characteristics such as the extent; magnitude; duration; frequency; and reversibility of the impact in order to provide justification for any conclusions about the nature and likelihood of the impact described.

- 2.8.5 Where initial impacts have been identified as significant, avoidance, mitigation and compensation measures have been proposed to avoid, prevent, or offset such effects. This assessment then considers residual impacts (*once all mitigation has been taken into account*), with any significant effects highlighted. A significant effect is defined as ‘*an effect which either supports or undermines biodiversity conservation objectives for ‘important ecological features’ or for biodiversity in general.*’ Enhancement has been proposed to ensure that the development represents a net gain in biodiversity in accordance with National Policy.

2.9 Constraints and Limitations

- 2.9.1 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible and hence overlooked. These are accepted constraints associated with the standard Survey Methodology.
- 2.9.2 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site’s ecological value has been made.

3.0 BASELINE ECOLOGICAL CONDITIONS

3.1 Designated Sites

Statutory Protected Sites

- 3.1.1 The following statutory protected sites are noted within the likely zone of influence of the proposed site:

Table No. 06 – Statutory Protected Sites

Site	Description	Location
<i>International Statutory Designated Sites within a Potential Zone of Influence</i>		
Thames Estuary and Marshes RAMSAR	The site comprises a complex of brackish, floodplain grazing marsh ditches, saline lagoons and intertidal saltmarsh and mudflat along the River Thames between Gravesend and Sheerness in Essex and Kent. The habitats support internationally important numbers of wintering waterfowl, and the saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates. Qualifying species/populations: • Ringed plover <i>Charadrius hiaticula</i> • Black-tailed godwit <i>Limosa limosa islandica</i>	1.7km NE
North Downs Woodlands SAC	The site is primarily designated for supporting the following Annex I habitats: • <i>Asperulo-Fagetum</i> beech forests <i>Taxus baccata</i> woods of the British Isles	7.4km SE

Site	Description	Location
Thames Estuary and Marshes SPA	The Thames Estuary and Marshes Special Protection Area is a wetland of European importance comprising a mosaic of intertidal habitats, saltmarsh, coastal grazing marshes, saline lagoons and chalk pits. The site provides wintering and breeding habitats for important assemblages of wetland bird species, particularly wildfowl and waders as well as supporting migratory birds on passage. The site forms part of the wider Thames Estuary together with other classified SPAs in both Essex and Kent. Qualifying species: • Avocet <i>Recurvirostra avosetta</i> • Hen harrier <i>Circus cyaneus</i> • Ringed plover <i>Charadrius hiaticula</i> • Black-tailed godwit <i>Limosa limosa islandica</i> • Grey plover <i>pluvialis squatarola</i> • Dunlin <i>Calidris canutus islandica</i> • Redshank <i>Tringa totanus totanus</i>	3.8km NE
National Statutory Designated Sites within 2.0km		
South Thames Estuary and Marshes SSSI	The site consists of an extensive mosaic of grazing marsh, saltmarsh, mudflats and shingle characteristic of the estuarine habitats of the north Kent marshes. Freshwater pools and some areas of woodland provide additional variety and complement the estuarine habitats. The site supports outstanding numbers of waterfowl with total counts regularly exceeding 20,000.	1.5km NE

- 3.1.2 The site is located within the *Impact Risk Zone* of *Thames Estuary and Marshes* SSSI / SPA / RAMSAR, however development proposals are unlikely to meet the criteria which would require consultation with Natural England. Natural England advice for this location states that proposals for any net increase in residential units will have a likely significant effect on the qualifying features of the European Sites through increased recreational pressure. Natural England also states that the local authority has measures in place to manage these potential impacts through a strategic solution. Therefore, consultation with the LPA will be required to cooperate with such measures.

Non-Statutory Protected Areas

- 3.1.3 *Sites of Importance for Nature Conservation (SINCs)* are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2023)* and as such are material considerations when assessing planning applications. The following SNCI's are located within 2.0 km of the site.

Table No. 07 – Non-Statutory Protected Sites

Site	Location
Canal and Grazing Marsh, Higham (Local Wildlife Site)	1.5km NE

- 3.1.4 The site is comprised of distinctly different habitat to that of the above *Non-Statutory Protected Site*, the site area provides no supporting habitat, and proposals would have no impact upon these areas due to the intervening distance.

Pond Study

- 3.1.5 A single on-site pond were identified within 500m of the site, based on OS mapping and Satellite imagery. A small (c. 0.25m²) ornamental pond was identified on-site within the northern half of the site (Please see Figure No. 01 – site habitat plan). This pond is outside of the construction zone and is not likely to be impacted by development proposals.

Priority Habitat

- 3.1.6 Within 2.0km of the site there are *Priority Habitats* of *Coastal Saltmarsh*, *Mudflats*, *Coastal and Floodplain Grazing Marsh*, *Lowland Mixed Deciduous Woodland* and *Traditional Orchards*.

3.2 Existing Habitat Assessment

- 3.2.1 Habitats within and adjacent to the site include:

- *Modified grassland g4 (incl. tall forbs 16, scattered trees 32, frequently mown 103 and introduced shrubs 847)*
- *Other standing water (incl. Ornamental ponds 46)*
- *Buildings u1b5*
- *Other developed land u1b6*
- *Other broadleaved woodland w1g (incl. line of trees 33)*

Modified grassland g4 (incl. tall forbs 16, scattered trees 32, frequently mown 103 and introduced shrubs 847)

- 3.2.2 Much of the site is encompassed by a regularly mown lawn. The sward was uniformly below 50mm across the habitat and the species assemblage lacked diversity and was dominated by perennial ryegrass *Lolium perenne*, red fescue *Festuca rubra* and clover *Trifolium repens*. Low frequencies of herbs such as common daisy *Bellis perennis* and yarrow *Achillea millefolium* were also noted. Scattered trees were noted across the site and species included apple *Malus* sp. and silver birch *Betula pendula*.

- 3.2.3 This habitat also featured scattered small ornamental planting (smaller than the minimum mappable area) including species such as a skimmia species *Skimmia* sp. and ornamental roses *Rosa* sp. Further to this an area located to the south of the site had been left unmanaged and tall ephemeral species such as common nettle *Urtica dioica* had become more prevalent. This habitat is of **site level value**.

Other standing water (incl. Ornamental ponds 46)

- 3.2.4 A small ornamental pond was noted within the northern half of the site. The pond covers an area of c. 0.25m² surrounded by paving. The surface of the pond was mostly covered with a water-lily species *Nymphaea* sp. with the rest of the surface covered with duckweed *Lemnoideae* sp. This habitat is of **site level value**.

Buildings u1b5

- 3.2.5 Buildings on site included a large brick-built convent building towards the centre and a number of associated small outbuildings of varying construction scattered across the site. This habitat is of **negligible floristic value**. Please see Table No. 09 for further information on the construction of the buildings and an assessment of their potential to support roosting bats.

Other developed land u1b6

- 3.2.6 The site also featured hardstanding parking and access. This habitat is of **negligible ecological value**.

Other broadleaved woodland w1g (incl. lines of trees 33)

- 3.2.7 An area of woodland was noted towards the southern site boundary and was dominated by sycamore *Acer pseudoplatanus*. Bare ground and ivy *Hedera helix* dominated the ground layer. Tree lines were also noted across the site and along the site boundaries. The lines of trees were predominantly made up of non-native species, with Leyland cypress *Cupressus x leylandii* as the most numerous. This habitat is of **site level value**.

Invasive Species

- 3.2.8 No Schedule 9 invasive species (<https://www.legislation.gov.uk/ukpga/1981/69/schedule/9>) were identified on site during the survey.

3.3 Protected Species Assessment

Amphibians

Desk Study

- 3.3.1 The desk search returned no records for GCN from within the search area. Records for common and widespread amphibians have been made within the search area, the closest of which was located c. 600m from the site.

Site Assessment

- 3.3.2 During the initial site visit a small ornamental, lined pond (P1) was noted located within the northwest of the site. Pond P1 was circular and c. 0.25m² in area with a stone bird bath in the centre and surrounded by slab paving. The surface of the pond was dominated (c. 80%) by a water-lily species *Nymphaea* sp. with the rest of the surface covered with duckweed *Lemnoideae* sp. The HSI assessment of this pond is summarised below.

Table No. 08 – Summary of HSI Results

HSI Criteria	P1	
Location	1	Zone A
Pond Area	0.1	< 400m ²
Permanence	0.9	Never dries
Water Quality	0.67	Moderate
Shade	1.0	10%
Waterfowl	1.0	Absent
Fish	1.0	No fish noted
Pond Count	0.1	0/km ²
Terrestrial Habitat	0.33	Poor terrestrial habitat
Macrophyte	1.0	70%
HSI Score	0.54	Below Average

- 3.3.3 The regularly mown grassland and sealed surface / buildings that dominate the site offers negligible terrestrial opportunities for amphibian species including GCN. The woodland located adjacent to the south of the construction zone offers some low value terrestrial opportunities however this value is likely diminished due to the lack of suitable waterbodies in the local area and the urban nature of the local surrounds. The terrestrial habitat within the construction zone is therefore of **negligible suitability** for amphibians species including GCN.

Reptiles

Desk Study

- 3.3.4 The desk study returned low numbers of records for slow worm *Anguis fragilis* common lizard *Zootoca vivipara* and grass snake *Natrix helvetica* within the search area. The closest of these records was located c. 1.1km northeast of the site.

Site Assessment

- 3.3.5 Reptiles require a mosaic of habitats to persist in a landscape, including vegetative cover for refuge opportunities, open areas for basking and a diverse flora to support viable invertebrate prey throughout the year. The grassland and sealed surface that dominates the site meets none of these requirements. Habitats beyond the construction zone offer some low value potential suitable habitat. The scattered ornamental planting as well as the unmanaged area to the south of the site offer some low value and relatively isolated potential habitat for common and widespread reptile species only. Piles of grass cuttings were also noted to the south, north and east site boundaries, which represent potential warm compost piles that are favoured by grass snakes. It was assessed then that the wider site offers some low value opportunities for reptiles however the construction site is of **negligible value** to reptiles.

Bats

Desk Study

- 3.3.6 The desk study returned records for 2no. species of bat, including records for common pipistrelle *Pipistrellus pipistrellus* and noctule *Nyctalus noctule* bats. All records for bat species were centred around a point located c. 1.9km northwest of the site.

Daytime Bat Walkover - Trees

- 3.3.7 No trees within or adjacent to the construction zone were identified as offering some level of bat roost suitability during the ground level assessment.

Daytime Bat Walkover - Buildings

- 3.3.8 All buildings on site were subject to an internal and external assessment, a summary of findings is contained in Table No. 09 below and reference to the building numbers are illustrated in *Figure No. 01 – Site Habitat Plan*.

Table No. 09 – Bat Roost Assessment Results - Buildings

Building Ref	External assessment	Internal assessment	Overall result
B01	Three storey brick-built dwelling with clay tiled and pitched roof with multiple slipped tiles and gaps as well as sections of flat roof. This building also featured dormer windows, chimneys and hanging tiles with potential entry points throughout. No direct evidence of bats was recorded.	Loft space was limited with bedrooms constructed up to the roof. Loft spaces included areas with and without roofing felt and light ingress was noted at multiple points. Some areas of felt had fallen away but much of it was intact providing potential roosting habitat for crevice dwelling bats. No direct evidence of bats was identified.	Moderate

Building Ref	External assessment	Internal assessment	Overall result
B02	Small brick-built garage barn with corrugated sheet roof. Small potential entry points at the top of the garage door and beneath the roof sheets. No direct evidence of bats was recorded.	No internal inspection carried out. Building is to be retained.	Low
B03 + B04	2no. glass greenhouses. No direct evidence of bats recorded.	Light and temperature unlikely to support roosting bats. No direct evidence of bats recorded.	Negligible
B05 + B06	2no. wooden garden sheds with pitched felted roofs. No direct evidence of bats recorded.	Unlikely to provide suitable conditions for roosting bats.	Negligible

Bat emergence Surveys

- 3.3.9 Bat emergence surveys carried out in August / September 2024 focussed on B01 identified a day roost of a single common pipistrelle located within the eaves of the southern aspect of the building.

Bat Emergence survey – 22.08.24

- 3.3.10 During this survey the surveyor on the southeast survey point recorded moderate levels of foraging and commuting activity of common pipistrelle between 20:17 and 21:26, including an emergence of a single bat at 20:17 (see Image No. 01 – cpip emergence point). This surveyor also recorded a noctule call at 20:52. Low levels of activity were recorded of common pipistrelle at the other 3no. survey points.

Bat Emergence Survey – 17.09.24

- 3.3.11 During this survey, moderate foraging and commuting of low numbers of common pipistrelle, noctule and brown-eared bat were recorded locally between 19:37 and 20:29. A common pipistrelle was noted re-entering the western gable at 19:50.

Foraging and Commuting Suitability

- 3.3.12 The grassland and ornamental planting on site offers low floral diversity throughout and so provides low value foraging opportunities for local bats. The woodland and other trees located on site and adjacent to the site provides potential moderate value foraging and commuting habitat for local bats although not connected with the wider landscape. Limited local records and the urban surrounds reduce the suitability of the site. The site is therefore of **site level value** for foraging and commuting bats with a **low potential** for more common and widespread species to occur.

Dormouse***Desk Study***

- 3.3.13 No records of dormouse *Muscardinus avellanarius* were returned from within the search area.

Site Assessment

- 3.3.14 The grassland and buildings that occupy the majority of the site provide negligible value for local dormice. Woodland and individual trees are present on site, but their extent is limited, and they are not functionally connected with other areas of suitable habitat. The site is therefore of **negligible value** for this species.

Badger***Desk Study***

- 3.3.15 Due to persecution, badger records are confidential and were therefore not included within the data search.

Site Assessment

- 3.3.16 During the initial site visit 5no. mammal holes were noted within the unmanaged area to the south of the site. These holes are of a size that might allow for badgers. Further to this, the holes did not appear to be in regular use as vegetation had grown over 3no. of them and the adjacent soil did not appear to be recently disturbed. Field signs including snuffle holes and latrines were noted on site during the September bat survey. The grassland surrounding the convent building on site also provides low value potential foraging habitat for badgers.

Badger Sett Monitoring

- 3.3.17 An Infrared camera trap was set focused on the 2no. largest mammal holes that were not covered by vegetative growth. The Camera was set on the 22nd August 2024, checked on the 9th September and collected on the 17th September 2024. Photographs obtained from the 21no. days of monitoring yielded evidence of foxes present around the mammal holes and no records of badgers. Further to this, the vegetation that partially blocked the other mammal holes remained intact. This potential sett was not active during the monitoring period, however given the number and size of the holes noted and likelihood of badgers commuting through the surrounding area, it is recommended that as a precautionary approach it is treated as a disused badger sett. The site is of **site level value** with a **low potential** for badgers to be present.

*Hedgehog**Desk Study*

- 3.3.18 Several records for hedgehog *Erinaceous europaeus* were returned from within the search area. The closest of which were located c. 350m southwest and 450m west of the site.

Site Assessment

- 3.3.19 The grassland across the site and the woodland and unmanaged land to the south of the site offer the opportunity to support dispersing, foraging and nest building hedgehogs. Overall, the site is of **site level value** and hedgehogs have a **moderate potential** to utilise the site occasionally.

Birds

Desk Study

- 3.3.20 Numerous bird species have been recorded within the 2.0km search area. This included records for species listed on Schedule 1 (Wildlife and Countryside Act, 1981) (as amended) such as redwing *Turdus iliacus* and records for species of birds listed on the Birds of Conservation Concern (BoCC) Red List (Stanbury *et al*, 2021) such as starling *Sturnus vulgaris*.

Site Assessment

- 3.3.21 The site contains regularly managed grassland, a small area of woodland and scattered trees all of which offer potential suitable habitat for a range of passerine species throughout the year, and particularly during nesting season. The grassland sward was uniformly very low and unsuitable for ground nesting birds. The shrub and tree species composition present across the site offers a range of nesting and foraging opportunities, although the urban nature and edge effects due to small extent, likely diminishes suitability. The site has been assessed as of **site level value** to breeding birds.

Water Vole

Desk Study

- 3.3.22 Limited records of water vole *Arvicola amphibius* were returned from within the search area, located c. 1.2km northeast and 1.3km east of the site.

Site Assessment

- 3.3.23 No wetland habitat was identified on site or immediately adjacent to the site boundary. The site is therefore of **negligible value** to water vole.

Invertebrates

Desk Study

- 3.3.24 The desk study returned numerous records of protected / notable invertebrates from within the search area, including stag beetle *Lucanus cervus*.

Site Assessment

- 3.3.25 No incidental sightings of notable invertebrates were made during the site visit. The site is dominated by greenspace and supports a low range of common and widespread floral species unlikely to support significant numbers of notable or rare invertebrate species. The site was assessed as offering **negligible potential** to support a notable assemblage of species.

Others

- 3.3.26 No suitable habitat for any other protected species was recorded on site.

4.0 ASSESSMENT OF EFFECTS

- 4.0.1 Using the Guidelines for Ecological Impact Assessment (IEEM, 2006 & updated by CIEEM, 2018), the assessment set out below considers the potential impacts of the scheme prior to mitigation. Detailed avoidance, mitigation and compensation measures are then discussed, with residual impact identified once these measures have been taken into account. Wherever possible mitigation measures have been designed into the scheme as this gives greater certainty over deliverability and ensures the correct application of the 'Mitigation Hierarchy' (as advocated by BS42020:2013, Defra 2019 and CIEEM, CIRIA & IEMA 2016).
- 4.0.2 Protected species for which the construction zone offers negligible suitability have been scoped out of further assessment.

4.1 Designated Sites*Potential Impacts*

- 4.1.1 The site is located within the *Impact Risk Zone of Thames Estuary and Marshes SSSI / SPA / RAMSAR*, however development proposals are unlikely to meet the criteria which would require consultation with Natural England. Natural England advice for this location states that proposals for any net increase in residential units will have a likely significant effect on the qualifying features of the European Sites through increased recreational pressure.

- 4.1.2 3no. internationally designated statutory sites were identified within a potential zone of influence of the proposed development site, including the Thames Estuary and Marshes RAMSAR and SPA and the North Downs Woodland SAC, the closest of which is located 1.7km from the site. As none of these designations are located within the immediate vicinity of the site, the potential for direct impacts, such as through land take etc. is negligible.
- 4.1.3 Other statutory and non-statutory designated areas were identified within a potential zone of influence of the site. However, none exist within or directly adjacent to the site, so would not be likely to be directly impacted by proposals. Proposals have the potential to result in the aforementioned indirect impacts to the designated areas. However, the designated areas are not known to be vulnerable to these impact pathways and the scale of potential impacts would be limited in relation to the existing impacts on the site, and further assessment or mitigation would not be required.

Mitigation and Compensation

- 4.1.4 Natural England also states that the local authority has measures in place to manage these potential impacts through a strategic solution. Therefore, consultation with the LPA will be required to cooperate with such measures.

Residual Impacts

- 4.1.5 Once mitigation measures have been considered, there shall be **no likely significant effect** upon any designated site as a result of this development.

4.2 Habitats

Potential Impacts

- 4.2.1 Development proposals will result in the loss of areas of modified grassland and individual trees (many of which are non-native species). These habitats are of broadly low ecological value, the loss of which would be of minor impact magnitude.

Mitigation and Compensation

- 4.2.2 Works during the construction phase shall be undertaken in accordance with best practice guidelines to control any excess dust and noise creation which may impact retained and adjacent habitats. Protection measures should also be provided for the retained woodland and individual trees in accordance with *BS5837:2012 - Trees in Relation to Design, Demolition, and Construction*.

- 4.2.3 Proposals would require the loss of trees on site, compensatory planting should replace those trees with all native species.

Residual Impacts

- 4.2.4 Provided mitigation and protection measures are followed, no priority or other important habitats or plant species will be affected by this development, the impact of which is **not significant**.

4.3 Bats*Potential Impacts*

- 4.3.1 In the absence of mitigation impacts could include the disruption of commuting corridors and foraging habitat through inappropriate lighting and loss of vegetated habitats on site. Due to the broadly low suitability of the habitats and urban surrounds, impacts would be of minor significance and unlikely to occur.
- 4.3.2 Bat emergence surveys carried out in August / September 2024 identified 1no. day roost of 2no. individual common pipistrelles located within the western most gable end on the southern aspect and the eaves of the southern aspect of building B01. Any works to the roof of the building B01 could disturb and / or destroy an active bat roost, the impacts of which would be major at the site level and certain to occur.

Mitigation and Compensation

- 4.3.3 As proposals would cause the destruction of a bat roost, a licence must be obtained from Natural England (NE) to allow works to progress. Mitigation measures will be agreed through the application process for a mitigation licence but are likely to be as follows:

- *Licence application made to NE once full planning permission is received.*
- *Works impacting day roosts can be undertaken at any time of the year (although should aim to avoid the hibernation season). No works to the building are to begin until the licence is received.*
- *Bat boxes including 2no. crevice boxes shall be installed to the southern aspect of an adjacent mature tree.*
- *Once the licence is received, a toolbox talk shall be given to all contractors to make them aware of the legislation relating to bats, and what to do should a bat be unexpectedly found on site.*
- *Following erection of bat boxes, a soft strip of any roof and hanging tiles in the vicinity of the known roost required for removal shall be completed. All works shall be undertaken under ecological supervision.*
- *Any bats found shall be caught by hand and released into the pre-erected bat box.*
- *Non-bitumen coated roofing membranes (formerly BRMs) shall not be used in any building on site as this can cause bat entanglement and death. Type 1F felt or a breathable membrane which has passed a snagging propensity test are the only membranes permitted for use under licence.*
- *Existing adjacent vegetation should be retained where possible.*
- *A monitoring visit shall be completed in the summer following completion of the works, with any remedial measures identified by the survey completed as soon as possible.*

- 4.3.4 Artificial light spill upon the retained woodland and adjacent garden habitats shall be avoided to allow the use of these areas as a foraging resource and commuting route for bats. Existing adjacent vegetation should be retained where possible to support commuting routes.

Residual Impacts

- 4.3.5 The overall impact of the scheme will be **negligible**.

4.4 Badger and Hedgehog

Potential Impacts

- 4.4.1 In the absence of mitigation, impacts could include the trapping of badgers / hedgehogs in footings / trenches, fragmentation of habitat, and disruption of commuting corridors. Impacts would be of low impact magnitude and likely to occur.

Mitigation and Compensation

- 4.4.2 An updated badger walkover to confirm the continued disuse of badger setts on site shall be undertaken no sooner than 1no. month before commencement of works.
- 4.4.3 In order to ensure that potential impacts to badgers and hedgehogs are avoided, the following Reasonable Avoidance Measures (RAMs) shall be incorporated into the construction phase as follows:
- *All contractors should be given a toolbox talk to make them aware of the potential presence of these species in the area;*
 - *All trenches and / or excavations should be covered overnight or have a broad and shallow ramp installed to prevent badgers or other mammals becoming trapped;*
 - *Any exposed pipework greater than 200 mm diameter should be blocked to prevent badgers gaining entry;*
 - *Any loose material stockpiled on site for an extended period should be fenced to prevent badger access, as they readily build setts in loose, easy-to-excavate material;*
 - *Short-term stockpiles should be checked daily for any signs of digging and fenced if appropriate.*
- 4.4.4 For the disused badger sett, a precautionary approach is recommended; only light machinery should be used within 20 metres and only hand tools be used within 10 metres.

- 4.4.5 Hedgehog gaps (130mm x 130mm) should be installed into the proposed garden fences to allow free movement of any local hedgehogs.

Residual Impacts

- 4.4.6 Once mitigation measures are taken into account, the overall impact of the scheme will be **negligible**.

4.5 Breeding Birds

Potential Impacts

- 4.5.1 In the absence of avoidance / mitigation, the development could result in the damage / destruction of a bird nest.

Mitigation and Compensation

- 4.5.2 Any dense scrub or trees scheduled for removal will be removed outside the nesting season (*season: March-August, although pigeons may nest all year*) or shall be checked prior to removal by a suitably qualified ecologist. To compensate for the loss of suitable nesting habitat bird boxes shall be fitted to the northern side of trees and integrated into the northern aspect of buildings during construction where practicable. Native planting should also be provided within the soft landscape scheme for the site to provide an enhanced range of foraging and nesting opportunities for birds.

Residual Impacts

- 4.5.3 The overall impact of the scheme will be **negligible**, with the proposed scheme likely to provide a long-term minor positive impact.

4.6 Invertebrates

Potential Impacts

- 4.6.1 In the absence of mitigation, small areas of suitable habitat for common widespread invertebrates would be lost. The impacts would be of minor impact magnitude but certain to occur.

Mitigation and Compensation

- 4.6.2 The proposed landscape scheme shall include compensatory areas of native planting. Many of the plant species used within the scheme shall have a recognised wildlife value such as plants listed on the RHS Plants for Pollinators lists.

Residual Impacts

- 4.6.3 The overall impact of the scheme will be **negligible**, with a positive impact in the long-term once vegetation has established.

5.0 ECOLOGICAL ENHANCEMENTS

5.1 The design of the proposed development includes ecological enhancements for the benefit of wildlife to assist with compliance with *Local Planning Policy* and the *Environment Act 2021* which mandates a minimum 10% net gain in biodiversity across all development sites. Ecological enhancements which should be included as part of development proposals include.

- *The use of flowering plants with a recognised wildlife value within the soft landscape scheme to provide year-round interest for invertebrates;*
- *The use of seed and fruit bearing tree species such as cherry, rowan, birch, and crab apple within the scheme to provide a foraging resource for birds and invertebrates;*
- *The provision of 'bat-friendly' planting including pale and night scented species to increase the foraging resource within the site;*
- *Incorporation of bird boxes suitable for a range of species within the retained trees and to the northern aspect of the proposed buildings and / or trees;*
- *Bat boxes suitable for a range of species to be incorporated into the southern aspect of the proposed buildings and / or trees;*
- *Installation of invertebrate boxes suitable for a range of invertebrates to south facing walls / trees and in more sheltered areas in vegetation to provide for a range of species;*
- *Creation of log piles within vegetated non-domestic areas.*

6.0 CONCLUSIONS

- 6.1 The main body of the site is dominated by modified grassland and sealed surface (including buildings), habitats of broadly low ecological value. The mature trees across the site are of higher value and many would be retained and protected within the scheme.
- 6.2 The site is located within the *Impact Risk Zone* of *Thames Estuary and Marshes* SSSI / SPA / RAMSAR, however development proposals are unlikely to meet the criteria which would require consultation with Natural England. Natural England advice for this location states that proposals for any net increase in residential units will have a likely significant effect on the qualifying features of the European Sites through increased recreational pressure. Natural England also states that the local authority has measures in place to manage these potential impacts through a strategic solution. Therefore, consultation with the LPA will be required to cooperate with such measures.
- 6.3 Badger monitoring provided evidence of the likely absence of badgers within the mammal holes on site. As a precautionary approach, the mammal holes should be treated as a disused badger sett and precautionary working methods have been recommended. Bat emergence surveys completed in August / September 2024 recorded evidence of 1no. day roost of 2no. single common pipistrelle bats within the western most gable end on the south aspect and within the eaves of the southern aspect of B01. Mitigation measures in relation to the identified bat roosts will be agreed as part of a licence application to Natural England
- 6.4 Habitats within the construction zone offer low value potential suitable habitat for hedgehogs, badgers invertebrates, and breeding birds. Avoidance and mitigation measures have been built into the design of the scheme in accordance with the mitigation hierarchy and BS42020: 2013.
- 6.5 Once avoidance, mitigation, and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant**. A Biodiversity Net Gain assessment of the site should be submitted separately.

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Table No. 10 – Species List for Habitat Parcels**Modified Grassland**

Common Name	Scientific Name	DAFOR
Common daisy	<i>Bellis perennis</i>	O
Birds foot trefoil	<i>Lotus corniculatus</i>	R
Bracken	<i>Pteridium</i>	R
Dandelion	<i>Taraxacum officinale</i> agg.	O
Moss species	<i>Bryophyta</i> sp.	LF
Perennial ryegrass	<i>Lolium perenne</i>	D
Red fescue	<i>Festuca rubra</i>	F
White clover	<i>Trifolium repens</i>	F
Yarrow	<i>Achillea millefolium</i>	O

Scattered trees and tree lines

Common Name	Scientific Name	DAFOR
Apple species	<i>Malus</i> sp.	O
Beech	<i>Fagus sylvatica</i>	O
Cherry species	<i>Prunus</i> sp.	O
Cherry laurel	<i>Prunus laurocerasus</i>	O
Copper Beech	<i>Fagus sylvatica</i> f. <i>purpurea</i>	O
English Yew	<i>Taxus baccata</i>	O
Eucalyptus species	<i>Eucalyptus</i> sp.	O
Hawthorn	<i>Crataegus monogyna</i>	O
Holly	<i>Ilex aquifolium</i>	O
Leyland cypress	<i>Cupressus x leylandii</i> .	F
Lime species	<i>Tilia</i> sp.	O
Medlar	<i>Mespilus germanica</i>	O
Monterey cypress	<i>Hesperocyparis macrocarpa</i>	O
Norway maple	<i>Acer platanoides</i>	O
Pear	<i>Pyrus</i> sp.	O
Portuguese laurel	<i>Prunus lusitanica</i>	O
Silver birch	<i>Betula pendula</i>	O
Sumac species	<i>Rhus</i> sp.	O
Sycamore	<i>Acer psuedoplatanus</i>	O

Ornamental planting/introduced shrubs

Common Name	Scientific Name	DAFOR
Butcher's broom	<i>Ruscus aculeatus</i>	O
Edible fig	<i>Ficus carica</i>	O
Garden privet	<i>Ligustrum ovalifolium</i>	O
Pendulous sedge	<i>Carex pendula</i>	O
Periwinkle species	<i>Vinca sp.</i>	O
Rose	<i>Rosa sp.</i>	O
Sage	<i>Salvia sp.</i>	O
Skimmia species	<i>Skimmia sp.</i>	O
Stinking iris	<i>Iris foetidissima</i>	O
Wood Sorrel species	<i>Oxalis sp.</i>	O

Woodland

Common Name	Scientific Name	DAFOR
Bramble	<i>Rubus fruticosus</i>	LF
Bindweed	<i>Convolvulus sp.</i>	LF
Common nettle	<i>Urtica dioica</i>	O
Elder	<i>Sambucus nigra</i>	O
English Yew	<i>Taxus baccata</i>	O
Holly	<i>Ilex aquifolium</i>	O
Ivy	<i>Hedera helix</i>	LA
Lords and ladies	<i>Arum maculatum</i>	O
Snowberry	<i>Symphoricarpos sp.</i>	O
Sycamore	<i>Acer psuedoplatanus</i>	D

Unmanaged area to the south of the site

Common Name	Scientific Name	DAFOR
Bramble	<i>Rubus fruticosus</i>	O
Bristly oxtongue	<i>Helminthotheca echioides</i>	O
Bindweed	<i>Convolvulus sp.</i>	LD
Common Mallow	<i>Malva sylvestris</i>	O
Common nettle	<i>Urtica dioica</i>	LD
Common ragwort	<i>Senecio jacobaea</i>	O
Elder	<i>Sambucus nigra</i>	O
Ground elder	<i>Aegopodium podagraria</i>	O
Ivy	<i>Hedera helix</i>	LA
Sycamore	<i>Acer psuedoplatanus</i>	O
Wall barley	<i>Hordeum murinum</i>	O
White campion	<i>Silene latifolia</i>	O

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Table No. 11 – Target Notes

Target Note	Feature	Description
TN01	Mammal Holes	Cluster of mammal holes located within the unmanaged area to the south of the site.
TN02	Compost Piles	Piles of grass clippings / garden waste
TN03	Pipistrelle day roost	Confirmed Common pipistrelle day roost on B01.

Appendix A – Site Photographs



Image No. 01 – cpip emergence locations.



Image No. 02 – View of the point at which the eastern extent of the woodland meets the unmanaged area adjacent to the south of the woodland.



Image No. 03 – View of the lawns and scattered trees located to the south of the convent.

Appendix B – Planning Policy and Legislation

Legislation

Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:

- *The Conservation of Habitats and Species Regulations 2017;*
- *The Wildlife and Countryside Act 1981 (as amended);*
- *The Natural Environment and Rural Communities (NERC) Act 2006; and*
- *The Environment Act 2021.*

This above legislation has been addressed, as appropriate, in the production of this report. Further details of legislation relating to the protection of particular ecological receptors are provided in the table below:

Ecological Constraint	Rationale
SACs (Special Area of Conservation), SPAs (Special Protection Areas) and Ramsars (Wetlands of International Importance)	Under the Conservation of Habitats and Species Regulations 2017 places a duty on the competent authority to maintain the favourable conservation status of designated SAC, SPA and Ramsar sites. Therefore, where it appears to the appropriate nature conservation body that a notice of a proposal relates to an operation which is, or forms, part of a plan or project which is likely to have a significant effect on a European site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, it must make an appropriate assessment of the implications for that site in view of that site's conservation objectives. In the light of the conclusions of the assessment, it may give consent for the operation only after having ascertained that the plan or project will not adversely affect the integrity of the site.
European protected species (bats, otters, dormice, water voles, great crested newts)	It is an offence under the Conservation of Habitats and Species Regulations 2017 to deliberately kill or injure a European protected species, to destroy breeding/resting sites, or to deliberately disturb these species and affect their ability to survive, rear young, breed, or hibernate.
Nationally protected species (bats, water vole, otter)	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to intentionally or recklessly disturb a species listed on Schedule 5 whilst it is in a place of shelter, or to obstruct access to a place for shelter.
Nationally protected species (reptiles)	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to kill or injure common species of reptiles.
National conservation priority species (white-clawed crayfish, fish, common toad, reptiles, noctule, water vole, otter, hedgehog), i.e., UKBAPs	Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of species and habitats that are of principal importance for the conservation of biodiversity, and to take, and promote others to take, such steps to further the conservation of these habitats and species. These species and habitats will be considered by Planning Authorities in regard to the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) to conserve and enhance the natural environment.

Ecological Constraint	Rationale
Badgers	It is an offence under the Protection of Badgers Act 1992 to damage or destroy a badger sett; obstruct any entrance of a badger sett; and disturb a badger whilst it is occupying a badger sett.
Wild mammals (rabbits, foxes, water vole, otter, hedgehog, badger)	It is an offence under the Wild Mammals (Protection) Act 1996 to inflict unnecessary suffering to any wild mammal with intent.
Nesting birds	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to damage or destroy a bird's nest whilst it is in use, and to kill or injure a bird or destroy an egg.
Non-statutory designated sites (SNCI's, LWS, LNR's, etc.)	LNRs are designated under Section 21 of the National Parks and Access to the Countryside Act 1949, which was amended by the Natural Environment and Rural Communities Act 2006. The value for biodiversity of LNRs and LWSs are recognised, and the sites and surrounding buffers are protected by the Local Plan.
Biodiversity	Section 40 of the NERC Act 2006 states that each 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." This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications. Chapter 15 of the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) states that the planning system and policies should minimise impacts on and provide net gains for biodiversity, and that, if significant harm to biodiversity would result from a development, then development should be avoided (through locating on alternative sites with less harmful impacts).
Irreplaceable habitats (ancient woodland, veteran trees, lowland meadows)	Chapter 15 of the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) states that development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

Local Planning Policy

'Policy CS12: Green Infrastructure' of the **Gravesham Local Plan** (2020) states that:

A multifunctional linked network of green spaces, footpaths, cycle routes and wildlife stepping stones and corridors will be created, protected, enhanced and maintained. The network will improve access within the urban area, from the urban area to the rural area and along the River Thames. The key parts of the network are identified on Figure 19: Strategic Green Infrastructure Network.

Sites designated for their biodiversity value will be protected, with the highest level of protection given to internationally designated Special Protection Areas, Special Areas of Conservation and Ramsar sites, followed by nationally designated Sites of Special Scientific Interest, followed by Local Wildlife Sites and then by other areas of more local importance for biodiversity.

There will be no net loss of biodiversity in the Borough, and opportunities to enhance, restore, re-create and maintain habitats will be sought, in particular within the Biodiversity Opportunity Areas shown on the Strategic Green Infrastructure Network map and within new development.

Where a negative impact on protected or priority habitats/species cannot be avoided on development sites and where the importance of the development is considered to outweigh the biodiversity impact, compensatory provision will be required either elsewhere on the site or off-site, including measures for ongoing maintenance.

The overall landscape character and valued landscapes will be conserved, restored and enhanced. The greatest weight will be given to the conservation and enhancement of the landscape and natural beauty of the Kent Downs Area of Outstanding Natural Beauty and its setting. Proposals will take account of the Kent Downs Area of Outstanding Natural Beauty Management Plan, the Gravesham Landscape Character Assessment, and the Cluster Studies where relevant.

Appendix C – Bat Survey Results

Date	22/08/2024
Survey Type	Dusk
Sunrise / Sunset	20:05
Start Time	19:50
End Time	21:35
Start Temperature	17 °C
End Temperature	16 °C
Wind (Beauforts)	4-5
Cloud Cover	1/8
Rain	None

Surveyor	FB	
Survey Point	SW	
Brief Summary of Observed Bat Activity	Low activity – cpip only	
Time	Species	Notes
20:26	cpip	foraging within trees at s aspect
20:28	cpip	hns
20:34	cpip	hns

Surveyor	WM	
Survey Point	NE	
Brief Summary of Observed Bat Activity	Low activity – cpip only	
Time	Species	Notes
20:36	cpip	HNS
20:50	cpip	HNS brief call
21:15	cpip	HNS

Surveyor	LC	
Survey Point	NW	
Brief Summary of Observed Bat Activity	Low activity – cpip only	
Time	Species	Notes
21:15	cpip	HNS

Surveyor	AC	
Survey Point	SE	
Brief Summary of Observed Bat Activity	Moderate activity. Emergence at 20:17	
Time	Species	Notes
20:17	cpip	Emerged from the eaves at the bottom right of the western gable
20:27-34	cpip	HNS x3
20:36	cpip	Flew across the site towards the west
20:45 - 48	cpip	HNS x3
20:50	cpip	Flew over the building from South towards the north
20:52	cpip	HNS
20:52	Noc	HNS
20:53	cpip	HNS
20:59	cpip	HNS
21:08	cpip	HNS
21:11	cpip	Foraging over the apple trees
21:13 - 21:26	cpip	HNS every minute or two

Date	17/09/2024
Survey Type	Dusk
Sunrise / Sunset	19:07
Start Time	18:52
End Time	20:37
Start Temperature	18 °C
End Temperature	16 °C
Wind (Beauforts)	4
Cloud Cover	6/8
Rain	None

Surveyor	LB / NF Red	
Survey Point	SW	
Time	Species	Notes
19:37-19:38	cpip	foraging in gardens
19:40-19:44	cpip	foraging
19:45	ble	foraging behind SP
19:46-19:48	cpip	foraging
19:50	cpip	foraging

Surveyor	HS - Fragile	
Survey Point	N	
Time	Species	Notes
19:56	cpip	clear, close hns
20:29	cpip	clear, short hns

Surveyor	CO - PURPLE NF	
Survey Point	S	
Time	Species	Notes
19:37	pip	Appeared from W side of building, flew S
19:40	cpip	Flew between yew tree and building, away to S
19:44	cpip	Foraging overhead and social calling
19:47	cpip	E to W through garden
19:47		Flying towards building
19:50	cpip	reentry to western gable
19:52	cpip	over building then around W roof slope
19:54-20:02	cpip	Fairly continuous social calls and foraging in gardens
20:05	cpip	Back again
20:13	cpip	Still circling and social calls

Surveyor	FB - ORANGE NF	
Survey Point	East	
Brief Summary of Observed Bat Activity	Passing cpip and BLE, mostly HNS	
Time	Species	Notes
19:37	cpip	HNS
19:45	cpip	HNS
20:02	BLE	HNS
20:03	cpip	HNS
20:08	BLE	Seen but not on detector, flying south to north
20:11	Noctule	HNS
20:12	cpip	HNS
20:19	BLE	Faint call, HNS



Legend

- Red Line Boundary
- Blue Line Boundary
- ◆ Individual tree
- Non-native and ornamental hedgerow
- Developed land; sealed surface
- Introduced shrub
- Modified grassland
- Ornamental lake or pond
- Other woodland; broadleaved
- Tall forbs



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Client

Sisters of Mercy

Project Title & Location

Convent of Mercy
Convent Building

Drawn by	Approved by	Rev	Date
SH	LB	01	25/11/24

Figure No. 01 - Site Habitat Plan

25 50 m

N
1:1,400