

The Landings, Ford Airfield

Phase RM4 (South)

Ecological Protection and
Enhancement Plan

RM4_06.B

December 2024



Vistry Group

United Environmental Services

Ltd

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**ECOLOGICAL PROTECTION AND ENHANCEMENT PLAN
– RESERVED MATTERS PHASE 4 (SOUTH)**

At

Land at Ford Airfield

Ford

Arundel

BN17 5QZ

NGR: SU 99164 03571

Prepared for: Vistry Homes Ltd
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1 INTRODUCTION

1.1 Author and qualifications

This report is compiled and written by Ysobella Cox BSc MBiol, Ecologist for United Environmental Services Ltd (UES).

It has been verified by Kathryn James BSc MRes MCIEEM, UES Senior Project Manager.

1.2 Proposed development

Outline planning permission was granted by Arun District Council (F/4/20/OUT) on 14th July 2023 for:

'Outline planning application (with all matters reserved except for access) for the development of up to 1,500 dwellings (Use Class C3), 60-bed care home (Use Class C2), up to 9,000 sqm of employment floorspace (Use Classes B1), local centre of up to 2,350 sqm including up to 900 sqm retail / commercial (Use Classes A1 – A5) and 1,450 sqm community / leisure floorspace (Use Classes D1-D2), land for a two-form entry primary school (Use Class D1), public open space, allotments, new sports pitches and associated facilities, drainage, parking and associated access, infrastructure, landscape, ancillary and site preparation works, including demolition of existing building and part removal of existing runway hardstanding. This application affects a Public Right of Way. This application is the subject of an Environmental Statement. This application may affect the setting of a Listed Building. This application falls within CIL Zone 1 – Zero Rated.'

This report has been prepared to support the following application due to be submitted to Arun District Council in August 2024:

'Approval of reserved matters (layout, scale, appearance and landscaping) following outline consent F/4/20/OUT for phase RM4 (South), for the erection of 357 no. residential dwellings plus associated roads, infrastructure, parking, landscaping, open space & play areas, and associated works.'

1.3 Objectives and scope

UES was commissioned by Vistry Homes Ltd to produce an ecological protection and enhancement plan (EPEP) to partially discharge condition 18 of planning permission F/4/20/OUT in relation to RM4:

'Details for the delivery of the approved measures through the Ecological Protection and Enhancement Plan (Condition 17) shall accompany each reserved matters application for each phase as identified within the Phasing Strategy under Condition 5. This shall include details of how and where the measures approved through Condition 17 are to be delivered as part of each phase.'

Reason: To ensure the retention, protection and enhancement of biodiversity in accordance with Policies ENV SP1, ENV DM1 and ENV DM5 of the Arun Local Plan 2011-2031. It is considered necessary for this to be a pre-commencement condition to prevent harm to potentially vulnerable species. The approved plan shall be implemented in full in accordance

with the agreed timings and details on a phase by phase basis as defined by the Phasing Strategy under Condition 5, where relevant.'

1.4 Structure of the report

This EPEP presents a scheme for protecting and enhancing the biodiversity and opportunities for wildlife onsite. It details the habitat creation and enhancement measures which will promote protected or otherwise notable species and enhance the overall biodiversity and ecology of the site.

This report should be read in conjunction with Appendices 1 and 2.

2 LANDSCAPING AND HABITAT ENHANCEMENT

A detailed landscape masterplan has been produced by Tor & Co for RM4 (see Appendix 1 – Landscape masterplan).

2.1 Parkland

Four areas of parkland will be incorporated into the wider development, one of which, Runway Park, is located in RM4. Runway Park comprises country parkland with allotments along the southern edge. The retention of existing hedgerows coupled with native woodland structure and scrub planting will provide an area of high biodiversity value.

Runway Park connects with Ryebank Park along the southern site boundary; these two parks form a significant green corridor around the southern land parcel which will provide foraging and commuting opportunities for wildlife.

2.2 Tree and hedgerow planting

To compensate for the loss of trees onsite the planting scheme includes areas of tree and hedgerow planting throughout the proposed development site to enhance biodiversity and provide connectivity. In particular, the proposed tree planting within Runway Park will enhance connectivity on site as well as in the wider landscape. Native tree species to be planted include:

- | | |
|--|---|
| • Beech <i>Fagus sylvatica</i> | • Midland hawthorn <i>Crataegus laevigata</i> |
| • Bird cherry <i>Prunus padus</i> | • Pedunculate oak <i>Quercus robur</i> |
| • Black poplar <i>Populus nigra</i> | • Rowan <i>Sorbus aucuparia</i> |
| • Crab apple <i>Malus sylvestris</i> | • Scots pine <i>Pinus sylvestris</i> |
| • Downy birch <i>Betula pubescens</i> | • Small-leaved lime <i>Tilia cordata</i> |
| • Field maple <i>Acer campestre</i> | • Whitebeam <i>Sorbus aria</i> |
| • Hawthorn <i>Crataegus monogyna</i> | • Wild cherry <i>Prunus avium</i> |
| • Hazel <i>Corylus avellana</i> | |
| • Hornbeam <i>Carpinus betulus</i> | |
| • Horse chestnut <i>Aesculus hippocastanum</i> | |

Additional tree planting will provide foraging opportunities for invertebrates including larval stages, adult herbivorous species and pollinators. Providing a range of planted species will support a greater diversity of invertebrate species, which will in turn benefit other faunal species that will predate these invertebrates, such as bats and birds. In addition, the trees will provide increased nesting opportunities for birds and sheltered commuting opportunities for amphibians and mammals. Once fully mature, the trees may also develop fissures and crevices which can be used by roosting bats.

Once planted and established, the proposed trees should not require any management in the long-term, unless addressing issues with disease or damaged limbs that cause health and safety concerns. If any intensive pruning, or ongoing management, of trees and hedgerows is to be undertaken, it should be avoided during the nesting bird season (avoid during March to August inclusive), or alternatively a check for nesting birds can be undertaken immediately prior to the works.

2.3 Woodland

Areas of woodland structure planting have been incorporated into the landscape design strategy to enhance biodiversity by providing connectivity between different habitats onsite and through green corridors.

The new areas of woodland will be created through planting native tree and shrub species as detailed within the landscaping plan, including:

- Blackthorn
- Common dogwood
- Common holly *Ilex aquifolium*
- Field maple
- Guelder rose
- Hawthorn
- Hazel
- Hornbeam
- Horse chestnut
- Small-leaved lime
- Wild cherry

The additional woodland creation will provide nesting habitat for birds, and once fully mature, the trees may develop potential roosting features for bats such as cavities and crevices. The woodland will also provide foraging opportunities for invertebrates. Providing a range of planted species will support a greater diversity of invertebrate species, which will in turn benefit other faunal species that will predate these invertebrates, such as bats and birds.

Any tree felling or arboricultural works that are required will only be undertaken outside of the breeding bird season and these works will be avoided between March and August inclusive. If this isn't possible and works need to take place during this period, a nesting bird check will be undertaken immediately prior to the works by a suitability qualified ecologist and an ecological clerk of works will be appointed to oversee the works if considered necessary. If any specialist works are required, then an arboriculturalist should be appointed.

2.4 Wildflower grassland

Areas of wildflower grassland will be incorporated into areas of public open space (POS), as detailed at Appendix 1. The margins of the wildflower meadows will be mown to provide a minimum 1m buffer to footpaths, roads and infrastructure. The wildflower grasslands will be created by sowing the Emorsgate EM3 special general purpose meadow mixture. The composition of the Emorsgate EM3 mixture is detailed below:

Wildflowers

- | | |
|--|---|
| • Agrimony <i>Agrimonia eupatoria</i> | • Meadow cranesbill <i>Geranium pratense</i> |
| • Black medick <i>Medicago lupulina</i> | • Meadow vetchling <i>Lathyrus pratensis</i> |
| • Bladder campion <i>Silene vulgaris</i> | • Musk mallow <i>Malva moschata</i> |
| • Bulbous buttercup <i>Ranunculus bulbosus</i> | • Oxeye daisy <i>Leucanthemum vulgare</i> |
| • Common knapweed <i>Centaurea nigra</i> | • Red campion <i>Silene dioica</i> |
| • Common vetch <i>Vicia sativa</i> ssp. <i>Segetalis</i> | • Ribwort plantain <i>Plantago lanceolata</i> |
| • Cowslip <i>Primula veris</i> | • Rough chervil <i>Chaerophyllum temulum</i> |
| | • Sainfoin <i>Onobrychis viciifolia</i> |

- Crosswort *Cruciata laevipes*
- Field scabious *Knautia arvensis*
- Great burnet *Sanguisorba officinalis*
- Greater knapweed *Centaurea scabiosa*
- Hedge bedstraw *Galium album*
- Hoary plantain *Plantago media*
- Kidney vetch *Anthyllis vulneraria*
- Lady's bedstraw *Galium verum*
- Salad burnet *Poterium sanguisorba ssp sanguisorba*
- Selfheal *Prunella vulgaris*
- Tufted vetch *Vicia cracca*
- Viper's-bugloss *Echium vulgare*
- Wild carrot *Daucus carota*
- Wild marjoram *Origanum vulgare*

Grasses

- Common bent *Agrostis capillaris*
- Crested dog's-tail *Cynosurus cristatus*
- Red fescue *Festuca rubra*
- Smaller cat's-tail *Phleum bertolonii*
- Smooth-stalked meadow-grass *Poa pratensis*

Alternative wildflower grassland mixtures could be used; however, these will be agreed with the project ecologist to ensure they contain similar and appropriate native species.

The provision of wildflower grassland will provide immediate benefits for wildlife in the form of foraging, breeding and sheltering opportunities. In the longer term, the grassland will also be colonised naturally by additional native plant species.

2.5 Scrub planting

Areas of native scrub planting are proposed along the site boundaries and within Runway Park, which forms part of the green corridor linking the site to Ryebank Park and the wider landscape. Native scrub species will be incorporated into the landscape design including:

- Blackthorn
- Common dogwood
- Hawthorn
- Hazel
- Holly

The areas of shrub planting will also be sown with Emorsgate EG1 general purpose meadow grass mixture to create the ground flora of the shrub habitat.

The provision of shrub planting will ensure that foraging opportunities (for both larval stages and adult pollinators) are available for a greater diversity of invertebrate species, which will in turn benefit other faunal species that will predate these invertebrates, such as bats and birds. In addition, the shrubs will provide increased nesting opportunities for birds and sheltered commuting opportunities for amphibians and mammals.

2.6 Amenity gardens and ornamental planting

As the proposed development is a housing scheme, numerous areas of amenity garden will be created onsite most of which will be associated with the residential properties and access roads. In addition, there will be areas of ornamental planting throughout the proposed



development site. Ornamental structural and accent planting will occur around the plots and mainly comprise either evergreen or flowering species.

3 PROTECTED SPECIES

3.1 Bats

The hedgerows, treelines, grassland and dense scrub habitats will provide commuting and foraging opportunities for bats, whilst the buildings and trees onsite may provide roosting opportunities. In addition, the connectivity between the different habitats onsite through hedgerows and treelines further improves the quality for bats.

A suite of bat surveys has been undertaken onsite by Ecological Survey and Assessment (ECOSA) between 2017 and 2018, including bat scoping surveys of the buildings onsite, a ground-level tree assessment, emergence / re-entry surveys, bat transect surveys and bat automated detector surveys. The results of which are detailed within the associated ECOSA report - Environmental Statement – Technical Appendix 9.3 – Ecological Baseline (Report Reference 2921-9.3.F0).

Due to the number of years since the original bat surveys were undertaken and the potential for bats to roost within previously unidentified features or those which have developed overtime, UES were commissioned to undertake updated bat ground-level and aerial tree assessments to determine the suitability of the trees onsite to support roosting bats. UES were also commissioned to undertake updated bat scoping and bat presence / absence surveys where necessary.

UES carried out an updated bat scoping survey in June 2024, with a follow up scoping survey in September 2024 of Building 6, which could not be internally accessed in June. Two buildings, Buildings 1 and 5, were subject to bat presence / absence surveys after being found to present low and moderate suitability to support roosting bats, respectively. No bats were identified within either building during the presence / absence survey. All other buildings to be impacted by the development have been assessed as providing negligible suitability to support roosting bats (see report reference UES04099/03 for full details).

An updated ground-level tree assessment was undertaken by UES in July 2024 which assessed all trees for their suitability to support roosting bats that may be impacted by arboricultural works, including felling or pruning works. A subsequent aerial tree assessment was conducted of trees that are to be removed which contain PRF-M or FAR features between August and September 2024. No bats were identified within any trees during these aerial tree assessments (see report reference UES04099/05 for full details).

3.1.1 Mitigation measures

Bats in buildings

No bats were found to be using Building 1 and Building 5 on site to roost, and the remaining buildings covered during the inspections were assessed as having negligible suitability to support roosting bats. Therefore, no further survey work or compensation measures are required for the development to proceed, with regards to bats.

Bats in trees

In accordance with BCT guidelines, no further survey work is required for the trees that have been assessed as having only PRF-I features. However, soft felling techniques should still be used to minimise any incidental risk of harm to bats as a precautionary measure. The trees

must be removed in sections, which will be lowered to the ground and left for a period of 24 hours before removing them from the site. Alternatively, the features associated with these trees could also be inspected by a suitably experienced and licensed ecologist immediately prior to the felling of the tree to confirm that no roosting bats are present.

No evidence of bat roosting activity was associated with trees with PRF-M features despite a full suite of surveys being conducted. Therefore, no further survey work is required for the proposed works to these trees, although soft-felling techniques should still be used to minimise any incidental risk of harm to bats as a precautionary measure as described above/

Trees assessed as having “none” may be felled without restrictions relating to bats.

3.1.2 Compensation and enhancement measures

Bat boxes will be provided onsite to provide an enhancement in the availability of roosting opportunities. Vistry Group have committed to including one integral bird / bat box per equivalent plot. To that end, 356 bird /bat boxes will be provided as part of this phase of the development. The exact ratio of bat to bird boxes will be determined during the construction phase based on availability of products, but any deviations from the locations shown on Appendix 2 will be agreed in writing with the project ecologist.

Bat boxes will be installed on a south facing aspect in close proximity to good quality habitat for bats such as hedgerows, tree lines, woodland, scrub and wildflower grassland. See Appendix 2 for mapped locations.

The proposed make and model of bat box has been chosen to target species likely to be present on site or within the local area. If the proposed model of bat box is not available due to stock shortages, an alternative model can be used instead. All proposed changes must be discussed and agreed with the project ecologist to ensure that they provide similar roosting opportunities. The use of woodcrete or woodstone boxes will be prioritised due to their durability and longevity. The following bat boxes will be installed onsite:

- Vivaro Pro build-in woodstone bat boxes – integrated within the external wall of the newly constructed buildings. The bat boxes should be positioned as high as possible on the southerly aspect to expose the boxes to high levels of sunlight.
- Manthorpe ridge roost – installed at the end of a ridgeline and creates an enclosed space suitable for crevice dwelling bats.

It should be noted that once inhabited by a bat, boxes may only be inspected or disturbed by a licenced bat ecologist. Once installed, the bat boxes should not require any management in the long-term.

Bat boxes can be installed any time of year. Artificial lighting will be designed and directed to avoid overspill on all bat boxes, in order to minimise disturbance and increase the likelihood of occupancy. Where necessary, this may require the use of cowlings or the relocation of light sources or bat boxes if necessary. A sensitive lighting strategy will be developed in accordance with the Bat Conservation Trust's (BCT) bats and artificial lighting at night guidance note (08/23), as per condition 15 of F/4/20/OUT.

3.2 Birds

ECOSA's Environmental Statement – Technical Appendix 9.3 – Ecological Baseline (Report Reference 2921-9.3.F0), indicates that wintering bird surveys were undertaken by Artemis between November 2015 and February 2016. UES have not been provided with a copy of the wintering bird survey report produced by Artemis at this stage, but the ECOSA Environmental Statement indicates that 56 bird species were recorded within the proposed development site during the wintering bird surveys; no species associated with the Arun Valley Special Protection Area (SPA) were found to be associated with the proposed development site.

ECOSA also undertook breeding bird surveys of the proposed development site between May and June 2017, which recorded species on both the red and amber lists breeding onsite including skylark *Alauda arvensis*, song thrush *Turdus philomelos*, dunnock *Prunella modularis*, and stock dove *Columba oenas*. Additional red and amber listed species were also recorded using the site during the wintering bird surveys undertaken by ECOSA between December and February 2019. These surveys also determined that the habitats onsite may be suitable for species associated with the designation of Arun Valley SPA but recognised that regular disturbance across the site may reduce the suitability and conditions for these species.

There are a number of habitats onsite which are suitable to support nesting birds including woodland, hedgerows, trees, dense scrub, scattered scrub, tall ruderal, arable fields and buildings. Bird's nests were identified within some of the buildings during the updated bat scoping survey undertaken by UES in June 2024, and the other buildings have potential to support nesting birds.

3.2.1 Mitigation measures

General

Building demolition, tree felling, arboricultural works and vegetation removal could result in the direct loss of nests, any individuals within the nests and of available nesting territories if conducted during the breeding season. As such, building demolition, site clearance, tree felling, arboricultural works and vegetation removal (including enabling works) are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place between this period, a targeted breeding bird nest scoping survey should be conducted by a suitably qualified ecologist immediately prior to the works, or an ecological clerk of works appointed to oversee the works. This is in accordance with condition 24 of F/4/20/OUT.

Bewick's swan

A Shadow Habitats Regulations Assessment (sHRA) was produced for the proposed development site by ECOSA in October 2019 (see report reference: 4406.F0). Section 5.2 of the report details how increased footfall of humans and dogs along the proposed public footpaths, and how this may lead to increased disturbance for Bewick's swan *Cygnus columbianus bewickii*. It also details the required mitigation and compensation measures to be implemented to protect Bewick's swans and their habitat.

As the fields to the north and east of the site are suitable for Bewick's swan, screening will be implemented along the public rights of way (PRoW) in the form of stockproof fencing and low-lying hedgerows, to minimise potential disturbance by humans and dogs. A Bewick's swan mitigation strategy has been prepared which details the location and type of screening to be implemented (see report reference UES04099/24 for full details). Outline screening measures are detailed on Map 3 in ECOSA's sHRA, which are largely still valid, although natural development of vegetation in some areas has reduced the need to screen certain areas. The

chosen method of screening the PRoW is to plant species-rich native hedgerows. Native hedgerow planting has been chosen as the preferred screening measure as they are considered to provide a more complete visual screen to the PROWs and simultaneously enhance biodiversity.

3.2.2 Compensation and enhancement measures

Bird boxes will be provided onsite to provide an enhancement in the availability of nesting opportunities. Vistry Group have committed to including one integral bird / bat box per equivalent plot. To that end, 356 bird /bat boxes will be provided as part of this phase of the development. The exact ratio of bat to bird boxes will be determined during the construction phase based on availability of products, but any deviations from the locations shown on Appendix 2 will be agreed in writing with the project ecologist.

Bird boxes will be installed on a north facing aspect in close proximity to good quality habitat for birds such as hedgerows, tree lines, woodland, scrub and wildflower grassland. See Appendix 2 for mapped locations.

The proposed makes and models of bird boxes have been chosen to target species likely to be present on site or within the local area. Moreover, boxes have been chosen such that if the target species does not utilise the box then they remain suitable for other declining bird species. If the proposed model of bird box is not available due to stock shortages, an alternative model can be used instead. All proposed changes must be discussed and agreed with the project ecologist to ensure that they provide similar nesting opportunities. The use of woodcrete or woodstone boxes will be prioritised due to their durability and longevity. The following bird boxes will be installed onsite:

- Vivara Pro woodstone house sparrow nest box - integrated within the external wall of the newly constructed buildings, below the eaves on the northern elevation.
- Vivara Pro woodstone swift nest box – integrated within the external wall of the newly constructed buildings, below the eaves on the northern elevation. The box should be installed at a minimum height of 4m with an unobstructed entry point beneath the box.

Once installed, the bird boxes should not require any management in the long-term.

3.3 Amphibians

GCN impact assessments and environmental DNA (eDNA) analysis were carried out of ponds that were accessible within 500m of the site by ECOSA in 2017 (see corresponding report reference: 2921-9.3.F0). Of the ten ponds located within 500m of the site during the previous surveys, four (Ponds 6 – 9) were subject to eDNA analysis which returned negative results, indicating the absence of GCNs.

Whilst there are no waterbodies onsite, the terrestrial habitats have some suitability to be used by GCNs including woodland, hedgerows and tall ruderal habitats. In addition, there are several ponds and ditches within 500m of the proposed development site.

Given the lack of access to some of the offsite ponds in 2017 and the amount of time that has passed since the previous surveys, UES carried out updated GCN HSI and eDNA surveys in June 2024 (see report reference UES04099/11 for further details). Access was provided to Pond 1 and Ditches 1, 2, 5, 6, 7 and 8. Pond 1 and Ditches 5 and 8 were subject to eDNA

analysis which returned negative results, indicating the absence of GCNs; Ditches 1, 2 6 and 7 were dry at the time of survey and therefore could not be subject to eDNA analysis.

Given the results of the surveys undertaken to date, GCN are considered as likely absent from the proposed development site. However, due to the potential presence of common amphibian species, the following reasonable avoidance measures (RAMs) will be implemented during the construction phase of the development to protect amphibians on the chance they are present onsite during the works:

- No excavations are to be left open overnight. If this is not feasible a plank should be left within the excavation at a 45 degree angle to allow amphibians to escape. Any open excavations should be checked for amphibians in the morning prior to start of works on site.
- Materials will be stored on pallets off the ground in order to reduce the risk of amphibians sheltering underneath them.
- UES will remain on-call throughout the development and if any newts are encountered, work on site is to stop immediately and ecological advice is to be sought.

The provision of native tree, hedgerow and scrub planting along with the wildflower grassland will provide commuting and foraging opportunities for amphibians. Given the poor quality of the baseline habitats (predominantly managed arable land), this is considered to provide sufficient compensation for amphibians utilising the site.

3.4 Reptiles

Artemis Ecological Consulting Limited carried out a Phase 1 Habitat Survey in July and August 2015, and August 2016, which identified a single, adult common lizard *Zootoca vivipara* within a grassland in the eastern section of the proposed development site.

A full suite of reptile surveys were undertaken by ECOSA in 2017 (see report reference: 2921-9.3.F0). A single adult common lizard was identified in July 2017 within the northern section of the northern land parcel. In addition, two slow-worms *Anguis fragilis* were identified offsite but directly adjacent to the eastern boundary of the proposed development site during the GCN impact assessment and eDNA survey undertaken by UES in June 2024.

Habitats onsite which are suitable for common reptile species, such as grassland, dense scrub and woodland edges, will be lost in areas to facilitate the proposed development. The provision of native tree, hedgerow and scrub planting along with the wildflower grassland will provide commuting and foraging opportunities for reptiles present in the local area.

Due to the known presence of reptiles within the surrounding area, the following RAMs will be implemented during the construction phase of the development to protect reptiles on the chance they are present onsite during the works.

- The unmanaged arable fields, tall ruderal and any areas of grassland within the proposed working area are to be mown to have a sward length below 10cm. This mowing is to take place at least 24 hours prior to the start of development works. This is to give any reptiles present time to move off site of their own accord. The mown / cleared areas will then be maintained with a short sward until the works on site have been completed.

- No excavations are to be left open overnight. If this is not feasible a plank should be left within the excavation at a 45-degree angle to allow trapped wildlife to escape. Any open excavations should be checked for trapped wildlife in the morning prior to start of works on site.
- Where possible, materials will be stored on pallets off the ground in order to reduce the risk of reptiles sheltering underneath them.

3.5 Badgers

Artemis Ecological Consulting Limited undertook a Phase 1 Habitat Survey of the proposed development site in July and August 2015, and August 2016. No evidence of badger *Meles meles* activity was identified onsite during the survey but suitable habitats for badger were identified. ECOSA Ltd conducted updated protected species surveys in 2019, which also found no evidence of badger activity on site. However, given the time that has lapsed between the most recent surveys, UES conducted a suite of updated surveys of the development site between 2023 and 2024. Incidental observations of potential badger activity were recorded during this time, with a specific badger scoping survey taking place on 18th October when vegetation levels have reduced to enable a more thorough assessment of the site. This badger scoping survey included a walkover of the entire site, including any prior incidental observations of potential badger activity (see report reference UES04099/28 for further details).

Mammal paths, mammal holes, and some incidental foraging signs were identified during the surveys conducted by UES, although no confirmed evidence of badger activity has been found. The site is frequently used by dog walkers and so mammal paths may be artificial or utilised by foxes *Vulpes vulpes* or rabbits *Oryctolagus cuniculus*. All mammal holes identified on site are considered to support rabbit warrens or fox dens due to their small size. Incidental foraging signs are restricted to maize cobs that have been foraged. However, these may have been stripped by rats, mice or other small mammals.

As no setts, confirmed foraging signs or other evidence of badger activity were identified on or adjacent to the application site, the proposed development is not considered to pose a direct risk to badgers. Nevertheless, the site covers a large area and provides broadly suitable badger habitat. Therefore, mitigation measures, including the following RAMs will be implemented during the construction phase of the development to protect badgers on the chance they are present onsite during the works.

- Regular site checks must be undertaken during the construction phase of the development to ensure that no new setts have been created. If there is any doubt whether an excavation may support badgers, UES will be contactable on 01565 757 788 throughout the duration of the works.
- No trenches or excavations will be left open overnight. They will be backfilled or covered with board, or alternatively fitted with a means of escape for any badger (or other animal) which may become trapped within, such as a plank or slope leading out of the bottom of the excavation at an angle of 45°.
- Excavations will be checked before they are backfilled to ensure that no animals have become trapped.

- Any chemicals or harmful materials will be stored so that they cannot be accessed by badgers or other animals.

3.6 Hedgehogs

To allow continued use of the site by hedgehogs *Erinaceus europaeus* and to ensure commuting routes are not blocked, any fences installed onsite will be designed to allow passage of hedgehogs. This can either be through the choice of material e.g. choosing a fence style that naturally contains suitable sized holes at the base or through the inclusion of hedgehog highways. Hedgehog highways are small 13cm x 13cm holes at the base of fences. Hedgehog highways will be incorporated beneath every fence where residential gardens meet such that there is a continuous path for hedgehogs and small mammals throughout the residential gardens.

Brash / deadwood piles will also be created across the site, including within the woodlands, to provide sheltering and hibernating opportunities for a variety of wildlife onsite including small mammals, invertebrates and amphibians. The brash / deadwood piles will be created using arisings from any vegetation clearance works undertaken onsite. The arisings will be cut into different shapes and sizes and will be stacked in loose and randomly created piles, measuring approximately 0.5m x 0.5m x 0.5m to 1m x 1m x 1m in dimension. The brash and deadwood piles will be created as and when material becomes available during the vegetation clearance works. See detailed landscaping plans for precise locations. In addition, hedgehog nesting boxes will be provided onsite to provide sheltering opportunities for hedgehogs. See Appendix 2 for mapped locations.

3.7 Hazel dormice

ECOSA carried out hazel dormouse *Muscardinus avellanarius* surveys in June-September 2017 (see report reference: 2921-9.3.F0). No evidence of hazel dormice was identified during these surveys and as such, they were considered likely absent from the site.

There are limited areas of suitable habitat within the surrounding landscape and the majority of the proposed development site is unsuitable to support hazel dormice. The relatively small areas of woodland and hedgerows onsite provide somewhat suitable habitat for hazel dormice; however, they are isolated from the wider landscape and the site is unlikely to be colonised by hazel dormice in the future. Despite this, the works should be completed under RAMs to reduce the risk to the lowest practicable level and to adhere to good practice guidelines. The below RAMs will be implemented during the construction phase of the development, including a pre-commencement check, to protect hazel dormice on the chance they are present onsite during the works.

- No woodland, scrub or hedgerow clearance will take place between June and September inclusive when females would have dependent young, or between December and March inclusive when dormice would be hibernating.
- Phased vegetation clearance of any existing hedgerows, woodland or scrub that will be impacted by the works. These habitats should be removed in a way that directs individuals in the direction of remaining suitable habitat such as retained hedgerows at the site boundaries.

3.8 Invertebrates

Insect boxes will be provided onsite to provide an enhancement in the availability of breeding and sheltering opportunities. Approximately half of the newly constructed buildings will contain a biodiversity enhancement, in the form of either a bat, bird or insect box. Insect boxes will be installed on a south facing aspect in close proximity to good quality habitat for insects such as hedgerows, tree lines, woodland, parkland, wildflower grassland, as well as ornamental planting. See Appendix 2 for mapped locations.

The proposed make and model of insect box has been chosen to target species likely to be present on site or within the local area. If the proposed model of insect box is not available due to stock shortages, an alternative model can be used instead. All proposed changes must be discussed and agreed with the project ecologist to ensure that they provide similar nesting opportunities. The use of woodcrete or woodstone boxes will be prioritised due to their durability and longevity. The following insect boxes will be installed onsite:

- Bee brick – integrated within the external wall of the newly constructed buildings. The bee bricks should be a minimum of 1m high on a southerly aspect to expose the boxes to high levels of sunlight.

The insect boxes installed will provide breeding and sheltering opportunities for solitary Hymenopterans species that are known to be present onsite or are likely to be present within the local area.

Once installed, the insect boxes should not require any management in the long-term.

4 LANDSCAPING AND HABITAT MANAGEMENT

The responsibility for ensuring that the initial habitat creation and enhancement measures are implemented lies with the developer and any contractors appointed to carry out those works at the time of the development. They will be responsible for ensuring that the habitat creation works are carried out in accordance with this EPEP.

A compliance visit will be undertaken by a suitably qualified ecologist prior to 80% occupation of the dwellings for this phase to confirm that the biodiversity enhancements onsite have been implemented as per this EPEP. The delivery of the biodiversity enhancements stipulated within this report will depend on a variety of factors that are not possible to forecast with certainty. However, all habitat creation for this phase will be in place prior to 80% occupation of new dwellings. Whilst the habitats will take time to mature to reach their target conditions – particularly those that are defined by the presence of trees such as parkland, woodland, and orchards – this is expected to be deliverable by 2028 inclusive.

Subsequent management of the habitats on site will be the responsibility of the appointed management company. A habitat management and maintenance plan (HMMP) for the POS and green infrastructure will be prepared for RM4 prior to occupation, in accordance with condition 23 of F/4/20/OUT. The management company will ensure that the ongoing measures detailed within this HMMP are implemented. They will also be responsible for monitoring the establishment of habitats as well as monitoring them for any changes affecting their quality or function. An annual meeting will be held to discuss these issues and whether any remedial works are necessary to restore the habitats to a satisfactory standard.

5 CONCLUSION

The mosaic of native species-rich hedgerow, native tree planting, native dense scrub, long grass margins and wildflower grassland will provide a biologically diverse landscape and deliver a net benefit for biodiversity. The green infrastructure, particularly along the western site boundary, will provide a green corridor which will promote the natural distribution of species, ensuring that ecological resilience is maintained within the wider landscape.

Provided the measures within this report are followed, it is considered that the proposed development will be compliant with all relevant legislation and planning policy and will result in a positive outcome for biodiversity.



APPENDICES

Appendix 1 – Landscape masterplan



Approved Outline Application Boundary

RM1 Application Boundary

RM4 Application Boundary

Infrastructure RM Application Boundary

Timber closeboard fence 1.8m high

Timber closeboard gate 1.8m high

Timber post and wire fence 1.2m high

Estate railing in black 1m high

Estate rail gate in black 1m high

Clift chestnut post and rail fence 1.2m high

Timber knee rail 0.6m high

Steel palisade fence 1.8m high

Post and wire deer proof fence 2m high

Brick wall 1.8m high (to match an/Needs specification)

Primary, Secondary and Tertiary Streets (incl parking bays / driveway): Macadam surface (incl kerbs) Kerbs: Charcon British Standards BM Kerb 45x250mm, 125mm upstand

Mews Street: Charcon Woburn Rumbled in Autumn, 200x134, 45deg herringbone Kerbing: Charcon Eco Countryside Kerb 145x255, 50mm upstand

Mews Junction: Charcon Woburn Rumbled in Brindle, 200x134, 45deg herringbone Kerbing: Charcon Eco Countryside Classic Flat Top Edging 50x25, 50mm upstand

Parking Courtyards and Semi-private drives: Charcon Woburn Rumbled in Brindle, 200x134, 45deg herringbone Kerbing: Charcon Eco Countryside Classic Flat Top Edging 50x25, 50mm upstand

Parallel parking bays: Charcon Woburn Original in Brindle, 200x134mm, stretcher bond Kerb: Charcon Eco Countryside Kerb 145x255mm, 50mm upstand

Parallel parking bays: Charcon Woburn Original in Brindle, 200x134mm, stretcher bond Kerb: Charcon Eco Countryside Kerb 145x255mm, 50mm upstand

Driveway: Charcon Woburn Rumbled in Autumn, 200x134, stretcher bond

Public footpath/Cycleway: Macadam surface Kerbing: Charcon British Standards Flat Top, 50x250mm, laid flush

Macadam surface footpath/cycleway, 3m wide Kerb: Charcon British Standard Flat Top Edging 50x250mm, laid flush

Private footpath: Charcon Stonemaster Flag, 450x450mm in sandy buff, black bond

PDS footpaths: Compacted hoggan

Proposed sand to play areas (indicative)

Raised take and ramps - Black paving in accordance with original drawings

Sumble Bridge: Charcon Woburn Original in Graphite, 250x134mm, stretcher bond

Apartment patio: Charcon Stonemaster Flag, 450x450mm in sandy buff, black bond

Bus Collection Points: Charcon Woburn Rumbled in Autumn, 150x150mm, black bond

Timber Seat

Timber Seat

Timber bench to allotments

Timber picnic bench

Benquet table

Timber raised planters

Slake stones

Extent of equipped and natural play area

Location of play / fitness / parkour trail stations (Refer to landscape strategy for location)

Shedfield cycle stand (or equal approved)

Waste bin

Public Art

Signage post

Proposed bund

Existing public rights of way

Existing vegetation to be retained (Refer to arboriculturist A&V)

Vegetation to be removed (Refer to arboriculturist A&V)

Proposed trees

Native hedgerow

Low single-species hedgerow

Private ornamental planting

Communal ornamental planting

Woodland structure planting

Communal native planting

Native scrub

Basin marginal planting

Rear gardens

Private front lawn

Amenity grass

Flowering Lawn

Long grass margins

Wildflower meadow

Wildflower meadow (SU's feature)

Grasscrete

Allotment plots

Permanent water

Log piles (ecological feature)

Intermeccular (ecological feature)

Notes/Revisions

0 50 100 150 M

Ford Airfield
Vistry

N

Composite Landscape Masterplan
RM1, RM4 and RM Infrastructure

Status:	Drawn By:	Checked By:
For Planning	DL	TF
Project Number:	Scale (G.A.):	Date:
180641	1:2000	08/2024
Drawing Number:		Revision:
TOR-RM1-XX-DR-L-P-024		

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Do not scale from this drawing

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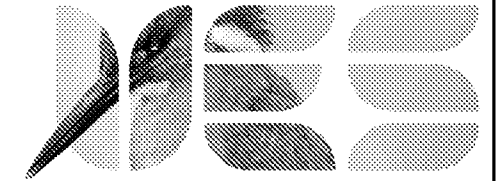
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JAVA DISTRICT COUNCIL PROFILES



Appendix 2 – Biodiversity enhancements

Site: Land at Ford Airfield
NGR: SU 99164 03571
Author: Mark Halliwell
Date: 17/12/24



KEY:

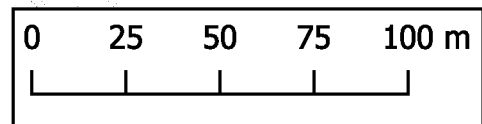
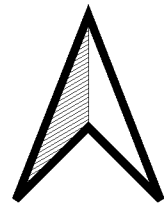
- Bee brick
- Vivaro Pro build-in woodstone bat box
- Vivara Pro woodstone swift nest box/
Vivara Pro woodstone house sparrow nest box/
Vivara Pro woodstone house martin nest

Other alternative box models are suitable provided they are of integrated design. Alternative models may be used depending on availability.

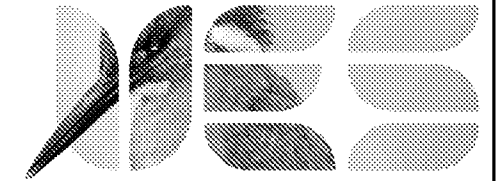
- Hedgehog nest box

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GIVEN.



Site: Land at Ford Airfield
NGR: SU 99164 03571
Author: Mark Halliwell
Date: 17/12/24



KEY:

- Bee brick
- Vivaro Pro build-in woodstone bat box
- Vivara Pro woodstone swift nest box/
Vivara Pro woodstone house sparrow nest box/
Vivara Pro woodstone house martin nest

Other alternative box models are suitable provided they are of integrated design. Alternative models may be used depending on availability.

- Hedgehog nest box

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