

# 11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL

REDROW HOMES

## Ecological Implementation Strategy (Pursuant to Condition 42 of DC/15/2151/OUT)

Version	Created By	Approved By	Date
vf	Sam Wheeler	Vince Smith	13.06.25

This report has been prepared by the following:



Sam Wheeler BSc  
Ecologist

This report has been reviewed and approved by the following:



Vince Smith MSc, MCIEEM  
Director

### **COPYRIGHT**

The copyright of this document remains with Ecology Solutions. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Ecology Solutions.

### **PROTECTED SPECIES**

This report contains sensitive information relating to protected species. The information contained herein should not be disseminated without the prior consent of Ecology Solutions.

## Contents

1. Introduction .....	1
2. ES Mitigation Measures to be Addressed .....	3
3. Purpose and Conservation Objectives.....	14
4. Review of Site Potential and Constraints .....	16
5. Extent and Location/Area of Proposed Works .....	19
6. Designated Sites .....	20
7. Woodland Buffer .....	21
8. Individual Trees.....	23
9. Hedgerows .....	26
10. Grassland .....	29
11. Introduced Shrub.....	35
12. Attenuation Features.....	38
13. Badgers .....	40
14. Bats .....	43
15. Dormice .....	46
16. Other Mammals .....	48
17. Birds.....	51
18. Reptiles.....	54
19. Amphibians.....	56
20. Invertebrates .....	58
21. Timetable of Works.....	59
22. Persons Responsible for Implementing the Works.....	60
23. Monitoring and Remedial Measures.....	61
24. Disposal of Wastes.....	62
25. Conclusion .....	63

## PLANS

PLAN ECO1	Site Location and Ecological Designations
PLAN ECO2	Ecological Features
PLAN ECO3a	Ecological Implementation Strategy 1
PLAN ECO3b	Ecological Implementation Strategy 2

## CONFIDENTIAL PLANS

PLAN ECOCON1	Ecological Constraints
--------------	------------------------

## APPENDICES

APPENDIX 1	Site Wide General Arrangement Plan by Exterior Architecture (Drawing Number: 1868-EXA-A3-ZZ-00001, Revision: P01)
APPENDIX 2	Planting Schedule by Exterior Architecture (Drawing Number: 1868-EXA-ZZ-ZZSH-L-20000, Revision: P01)
APPENDIX 3	Bat Boxes
APPENDIX 4	Hedgehog Gateways
APPENDIX 5	Bird Boxes
APPENDIX 6	Reptile Hibernacula
APPENDIX 7	Invertebrate Aids

## 1. Introduction

- 1.1. Ecology Solutions was commissioned by Redrow Homes in March 2023 to prepare materials to address the requirements of planning conditions for the development of Parcels A3 and A5 at Great Wilsey Park, hereafter referred to as 'the application site' as shown on Plan ECO1 (Planning Application Reference: DC/15/2151/OUT).
- 1.2. Condition 42 requires that an Ecological Implementation Strategy (EIS) be submitted and approved prior to commencement of development. The condition states:

**No development shall take place on any phase or reserved matters application (including demolition, archaeological investigation, ground works and vegetation clearance) until an ecological implementation strategy for that particular phase or reserved matters application addressing the mitigation measures set out in Volume 2 Section 9 of the Environmental Statement dated September 2015, relevant appendices and subsequent Addendum document May 2016 has been submitted to and approved in writing by the local planning authority. The implementation strategy shall include the following:**

- a) ES mitigation measures to be addressed.
- b) Purpose and conservation objectives for the proposed works.
- c) Review of site potential and constraints informed by up to date survey.
- d) Detailed design(s) and / or working method(s) to achieve stated objectives.
- e) Extent and location / area of proposed works on appropriate scale maps and plans.
- f) Type and source of materials to be used where appropriate, e.g. native species of local provenance.
- g) Timetable for implementation demonstrating that works are aligned with the proposed phasing of development.
- h) Persons responsible for implementing the works.
- i) Details of initial aftercare and long-term maintenance.
- j) Requirement for monitoring and remedial measures.
- k) Details for disposal of any wastes arising from works.

**The implementation strategy shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter.**

**Reason: To ensure the satisfactory development of the site at the appropriate time to protect vulnerable ecological habitats and ensure the satisfactory development of the site.**

- 1.3. This report has been prepared to address the requirements of Condition 42, providing details of the EIS to be adopted within the application site, with particular attention paid to the mitigation measures set out in Volume 2 Section 9 of the Environmental Statement (ES), relevant appendices and subsequent Addendum, in addition to the Ecological Assessment<sup>1</sup> produced by Ecology Solutions. Due regard is had to the baseline information and long-term objectives for the application site, where these are relevant. As necessary, mitigation strategies are proposed such that the development would be in line with all relevant legislative and planning policy

---

<sup>1</sup> Ecology Solutions (May 2025). Parcels A3 and A5, Great Wilsey Park, Haverhill. *Ecological Assessment*. Ref: 11409.EcoAs.vf (complete).

requirements.

- 1.4. The focus of this document is on the mitigation strategies and protective measures that will be implemented during construction, i.e. the development of the application site and establishment of the various habitats and features proposed. The long-term management and ecological enhancement of the application site is focused on in the Landscape and Ecological Management Plan (LEMP).
- 1.5. Both documents refer to the Site Wide General Arrangement (GA) Plan and Planting Schedule produced by Exterior Architecture (see Appendices 1 and 2 respectively).
- 1.6. In general, the focus of the ecological mitigation, enhancement and management measures is on the land covered by the Infrastructure Reserved Matters Application (RMA), which is subject to separate consideration. Most of the land within the application site comprises arable farmland, a habitat of limited ecological import, albeit with limited ecological interest derived from the associated field margin habitats. Additionally, further opportunities are to be incorporated as part of the built form, public green spaces and gardens.

## 2. ES Mitigation Measures to be Addressed

### 2.1. ES Chapter

- 2.1.1. The mitigation measures described in the Ecology ES Chapter are summarised in Table 9.5 of that document. The effects concerned and the mitigation proposed are reproduced in Table 2.1 below. A column has been added to the table to indicate where in this document and / or on the accompanying Site Wide GA Plan and Planting Schedule the measures are detailed, or where the effects are not relevant to this RMA.

**Table 2.1.** Ecology ES Chapter mitigation measures.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
<b>Construction</b>						
<b>Statutory and Non-Statutory Sites</b>						
Dust particles exposure on Local Nature Reserves (LNRs) and County Wildlife Sites (CWSs)	Temporary	Negligible	Work area sprayed with water during dry conditions.	Local	Negligible	See section 6 of this document.
<b>Habitats</b>						
Arable field loss	Permanent	Negligible	Diverse range of habitats will be created within the previously arable dominated areas.	Negligible	Minor / moderate beneficial long term	Arable fields in the application site will be occupied by housing. New garden areas and public green spaces will offer opportunities for wildlife. See sections 7 to 12 of this document and GA and Planting Plans.
Improved grassland – loss of fields	Permanent	Negligible	Some fields to be retained along the water course; these will be enhanced with additional planting. More species rich meadow grassland habitats are to be created	Negligible	Negligible	See section 10 of this document.



Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
			within the Green Infrastructure (GI).			
Field margins – partial loss	Permanent / temporary	Negligible	Majority retained within hedgerows.	Site	Minor beneficial long term	For general protection of field margins, see GA and Planting Plans and section 10 of this document.  H19, H21, H23 and H24 are not within the application site.
Field margins – partial loss of north / east 'Wildlife Conservation Areas' margins (H19, H21 & H23 / H24)	Permanent / temporary	Minor adverse short term	New areas of grassland habitats created providing more coverage and diversity.	Site		
Woodland - loss of 1ha of Woodland Compartment W1	Permanent	Minor/moderate adverse long term	Additional woodland planting through the site.	Local	Moderate beneficial long term at local level	W1 is not within the application site.
Woodland - loss of 0.3ha recently planted plantation (TN5)	Permanent	Minor/moderate adverse long term	Additional woodland planting to compensate for losses.	Local		No woodland is to be lost because of the application site.
Woodland – damage from encroachment by equipment or materials	Permanent / temporary	Minor/moderate adverse short term	Retained habitats fenced off and 'toolbox' talks given to contractors. No dig methods where roads and footpath required.	Site	Negligible	See section 7 of this document.
Woodland – foliage coverage with dust particles	Temporary	Minor adverse short term	During dry periods water will be sprayed over the ground, suppressing dust.	Site		See section 7 of this document.
Hedgerows - partial losses of Hedgerows H4, H9, H13 & H14	Permanent	Minor adverse long term	Existing hedgerows strengthened with additional native species. Compensatory	Local		H4, H9 and H13 are not within the application site. Majority of Hedgerow H14 is to be retained.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
			hedgerows planted.			See section 9 of this document.
Hedgerows - partial losses of Hedgerow Evaluation and Grading System (HEGS) Hedgerows H11, H12, H21 & H23				Local		H11, H12, H21 and H23 not within the application site.
Hedgerows - partial loss of hedgerow H19 'important' under The Hedgerow Regulations 1997				Local		H19 not within the application site.
Hedgerows - damage to existing and newly planted hedgerows from machinery, equipment and materials	Permanent / temporary	Minor adverse medium term	Retained habitats fenced off and 'toolbox' talks given to contractors.	Site		See GA and Planting Plans and section 9 of this document.
Watercourses - becoming clogged with rubbish / building material	Temporary	Minor adverse short term	'Toolbox' talks given to contractors about sensitivity of habitats.	Site		See GA and Planting Plans and section 12 of this document.
<b>Fauna</b>						
Badgers <i>Meles meles</i> - disturbance of badger clans within application site from habitat clearance	Temporary	Minor adverse short term	Retain buffer during initial site works.	Site	Negligible	See GA and Planting Plans and section 13 of this document.
Badgers - becoming injured by excavations	Temporary	Minor/moderate adverse short term	All excavations are to be covered overnight, or means of escape given.	Site		See section 13 of this document.
Birds (breeding) - removal of arable habitats	Permanent	Minor adverse long term	No arable habitats will be created. Additional nests and foraging provided in GI.	Negligible	Negligible	See section 17 of this document.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
Birds (breeding) – removal of hedgerow and part of woodland W1 removal during breeding season	Permanent	Moderate adverse in short term	Habitat removal to occur outside of breeding season or under supervision of an experienced ecologist. New hedgerows will be planted with fruiting bodies for foraging and dense structure for nesting.	Site	Negligible	See GA and Planting Plans and section 17 of this document.  W1 not in the application site.
Breeding birds-habitat created of benefit for Swift <i>Apus apus</i> , Starling <i>Sturnus vulgaris</i> , Song Thrush <i>Turdus philomelos</i> , Dunnock <i>Prunella modularis</i> and House Sparrow <i>Passer domesticus</i>	Permanent	Minor beneficial long term	GI will create additional hedgerow, trees, areas of open greenspace and residential gardens.	Local	Minor beneficial long term	See GA and Planting Plans and sections 7 to 12 of this document concerning bird habitats and section 17 for bird nesting aids.
Wintering birds – loss of arable habitats on Skylarks <i>Alauda arvensis</i>	Permanent	Minor adverse long term	Displaced to surrounding arable field.	Local	Negligible	See section 17 of this document.
Dormice <i>Muscardinus avellanarius</i> – loss of habitats used by dormice – isolation and injury / death	Permanent	Minor / moderate adverse long term	Removal of habitats under Natural England licence at appropriate times of the year.	Local	Negligible	No evidence of Dormice in the application site.
Dormice - loss of Hedgerow H23 / H24	Permanent	Negligible / minor adverse long term		Site	Negligible	H23 and H24 not in the application site.
Dormice - possible encroachment of construction machinery / materials into	Temporary	Minor	Retained habitats fenced off and 'toolbox' talks given to contractors.	Site	Negligible	See GA and Planting Plans and sections 9 and 15 of this document.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
retained habitats used by Dormice						
Dormice - deer grazing on new GI planting	Temporary	Moderate adverse long term	Fencing off or planting more mature species.	Site	Negligible	See section 15 of this document.
Reptiles - loss of habitats used by reptile populations	Permanent	Moderate adverse medium term	Passive displacement will be undertaken in areas when habitat losses occur.	Local	Minor beneficial long term	See GA and Planting Plans and section 18 of this document.
Reptiles - isolation of reptile populations from access roads / habitat loss	Permanent / temporary	Minor/moderate long term	Ensuring populations are not isolated by displacement measures and additional habitats created.	Site		See section 18 of this document.
Reptiles - Possible encroachment of construction machinery / materials into retained habitats used by reptiles	Temporary	Minor adverse short term	Retained habitats fenced off and 'toolbox' talks given to contractors.	Site	Negligible	See GA and Planting Plans and section 18 of this document.
Bats – losses of Woodland W1 will alter navigational and foraging behaviours	Temporary	Minor adverse short term	Linkages will be retained within other areas of Woodland W1. Increased GI will provide alternative routes.	Site	Negligible	W1 not in the application site.
Bats - fragmentation of navigational corridors due to linear losses	Temporary	Minor adverse short term	Habitat 'Hop-overs' to be created near gaps and additional planting to ensure additional navigational routes.	Local		No significant linear habitat losses due to the application site. See section 14 of this document.
Bats - disruption of navigational and foraging routes by artificial	Temporary	Minor adverse short term	Limit dusk working hours. Where required direction	Site	Negligible	See GA and Planting Plans and Lighting Strategy for Bats

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
lighting from construction works – common species of bat			lighting will be situated away from natural habitats.			
Bats - disruption of navigational and foraging routes by artificial lighting from construction works – Barbastelle <i>Barbastella barbastellus</i> bats	Temporary	moderate adverse short term		Local		See GA and Planting Plans and Lighting Strategy for Bats.
Bats - disruption of tree roosts and access to them by artificial lighting from construction works	Temporary	Minor adverse short term		Site	Negligible	See section 14 of this document.
Operational Effects						
Statutory & Non-Statutory Sites						
Increase in recreational disturbance on CWS & LNR	Permanent / temporary	Minor adverse long term	Specific GI created for recreational activities i.e. off lead dog walking. Circular walks with semi natural features.	Local	Negligible	See GA and Planting Plans and section 6 of this document.
Effects on Habitats						
Woodland - recreation disturbance on Great Field Plantation	Permanent / temporary	Minor adverse long term	Perimeter planting and fencing to focus public access to designated paths. Interpretation boards installed.	Local	Minor beneficial long term	Operational effects on Great Field Plantation considered as part of Infrastructure RMA.
Woodland - increased disturbance of Woodland W1, due to possible access to new amenities	Permanent / temporary	Minor adverse long term		Local		W4 not in the application site.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
Woodland - increased disturbance and possible damage of Woodland W4 from extended play and public interference	Permanent / temporary	Minor adverse long term		Local		W4 not in the application site.
Woodland - increase in litter levels within woodland affecting ground flora and fauna	Temporary	Minor adverse medium term	Litter bins to be located at entry points to woodland and near public amenities.	Local		Operational effects on woodland considered as part of Infrastructure RMA.
Woodland - disturbance through public short cuts through exiting and created hedgerow / margins	Temporary	Minor adverse medium term	Post and wire fencing to allow time for hedgerows to establish.	Site	Negligible	Operational effects on woodland considered as part of Infrastructure RMA.
Watercourse - increase in recreational pressure of watercourse, particularly the central feature	Permanent / temporary	Minor adverse long term	Fencing and public interpretation boards to raise awareness of biological features.	Local		Operational effects on watercourse considered as part of Infrastructure RMA.
Residential gardens	Permanent	Minor beneficial long term	N/A	Site	Minor beneficial medium term	See GA and Planting Plans and section 10 of this document.
New Woodland – damage by the public	Temporary	Minor adverse in medium term	New woodland planting will be fenced off and managed.	Local	Negligible	Operational effects on woodland considered as part of Infrastructure RMA.
New Habitats – grassland, waterbodies, woodland, and individual tree planting	Permanent	Moderate / major beneficial long term	New habitats created.	Local	Moderate / major beneficial long term	See GA and Planting Plans and sections 7 to 12 of this document.
New habitats – inappropriate management.	Permanent / temporary	Moderate adverse short /	A Green infrastructure & Biodiversity	Local	Moderate beneficial long term	See GA and Planting Plans and LEMP.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
		medium/ long term	Management Plan will be written.			
<b>Effects on Fauna</b>						
Badgers - disturbance of setts	Permanent	Moderate adverse medium term	Fencing and dense shrub planting around setts.	Site	Negligible	See section 13 of this document.
Badgers-domestic dog disturbance of sett and individuals	Permanent	Minor / moderate long term	Fencing and dense shrub planting around setts. Areas near setts will require dogs to be kept on the lead.	Site		See section 13 of this document.
Badgers – foraging in urban areas	Temporary	Minor adverse long term	Ensure that all refuge areas are fenced off and that bins are used.	Site		See section 13 of this document.
Birds – domestic cats and slow development of habitats	Temporary	Minor adverse medium term	Existing habitats retained to allow possible refuge. Where possible more mature hedgerow species planted. Nesting boxes will provide opportunities while habitats mature.	Site	Negligible	See GA and Planting Plans and section 17 of this document.
Birds – new GI	Permanent	Minor beneficial long term	Retention of hedgerows and the GI created will provide more refuge and foraging opportunities.	Local	Minor beneficial long term	See GA and Planting Plans and section 17 of this document.
Dormice – inappropriate management of habitats	Permanent / temporary	Minor / moderate adverse long term	A Green infrastructure & Biodiversity Management Plan will be written.	Site	Minor beneficial long term	New and retained Dormouse habitats are considered primarily as part of the

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
						Infrastructure RMA. No significant effect on Dormouse habitats will occur as a result of the application site.
Dormice – degradation of existing / created habitats by public	Permanent / temporary	Minor / moderate adverse long term	Habitats will be fenced off while they develop and interpretation boards specifying the importance of such areas.	Site		New and retained Dormouse habitats are considered primarily as part of the Infrastructure RMA. No significant effect on Dormouse habitats as result of the application site.
Dormice – predation by cats	Permanent	Minor adverse long term	Dense hedgerow planting and nesting boxes installed for refuge opportunities while habitats develop.	Site		New and retained Dormouse habitats are considered primarily as part of the Infrastructure RMA. No significant effect on Dormouse habitats as result of the application site.
Reptiles – predation by cats	Permanent	Minor adverse long term	New grassland habitats will be created through the site with specific reptile features such as hibernacula, log piles and hedgerows. These will act as refuge and hibernation structures.	Site	Minor beneficial long term	See GA and Planting Plans and section 18 of this document.
Reptiles – habitat creation	Permanent	Minor beneficial long term		Site		See GA and Planting Plans and section 18 of this document.



Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
Reptiles – degradation of existing / created habitats by public	Permanent / temporary	Minor / moderate	Habitats will be fenced off while they develop and interpretation boards specifying the importance of such areas.	Site		See GA and Planting Plans and section 18 of this document.
Bats – street and building lighting	Permanent	Moderate adverse short term	Buffers will be created along habitats to limit the degree of light spill. Where lighting required, they will be directionally focused or shrouded. Lighting on buildings will only be placed where necessary. Additional GI will provide alternative foraging and commuting opportunities.	Local	Negligible	See GA and planting plans and Lighting Strategy for Bats.
Bats – additional GI	Permanent	Minor / moderate beneficial long term	Additional GI created that will provide new commuting and foraging opportunities. GI will increase prey items as waterbodies and grassland habitats created.	Local	Minor / moderate beneficial long term	Majority of new habitats for bats considered as part of Infrastructure RMA. See section 14 of this document for provision associated with the application site.
<b>Cumulative Effects – North West Haverhill Development</b>						
<b>Construction</b>						
Dust particles effects on statutory sites	Temporary	Minor adverse short term	Suppress with spraying ground with water during dry periods.	Borough	Negligible	See section 6 of this document.

Potential Effect	Nature of Effect	Significance	Mitigation / Enhancement Measures	Geographical Features	Residual Effects	Document / Plan Reference or Comment
Loss of hedgerows	Permanent	Minor adverse long term	New hedgerow planting with Gl.	Site		Majority of hedgerows within the application site are to be retained with new hedgerow planting to occur to offset losses. See section 9 of this document.
<b>Operational</b>						
Recreational pressures on Ann Sucklings Way & Norney Plantation CWS	Permanent	Minor adverse long term	N/A	Borough	Negligible	See section 6 of this document.

2.2.

**ES Addendum**

- 2.2.1. No additional measures relevant to this RMA are contained in the ES Addendum.

### **3. Purpose and Conservation Objectives**

#### **3.1. Purpose of the Strategy**

- 3.1.1. The purpose of this strategy is to address the mitigation measures set out in Volume 2 Section 9 of the ES dated September 2015, relevant appendices and the subsequent addendum document dated May 2016. Additionally, any further mitigation measures included within the Ecological Assessment produced by Ecology Solutions in May 2025 will also be addressed.
- 3.1.2. The scope of the ES relates to the wider site and the ecological receptors identified during work to inform the outline application. The current strategy relates solely to the RMA for the application site, under the ownership of Redrow Homes. As set out in the introduction, the effects of this RMA are relatively limited when considered in isolation.

#### **3.2. Conservation Objectives**

- 3.2.1. Specific objectives for the conservation of species and habitats of nature conservation interest are set out in the relevant sections below. The nature of these objectives has been guided by the principles set out in UK and European wildlife legislation, notably the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 and the Natural Environment and Rural Communities (NERC) Act 2006 (as amended). Furthermore, the formulation of these objectives has also been influenced by national and local biodiversity and conservation targets, as set out in the UK Post-2010 Biodiversity Framework and the Sussex Biodiversity Action Plan (BAP).
- 3.2.2. The overarching objectives for nature conservation are as follows:
- To safeguard habitats and species that are important in the national and local context and to maintain or enhance their conservation status as appropriate;
  - To ensure that the application site continues to support a similar complement of species to that already existing (with the exception of invasive non-native species, if present); and
  - To enhance the biodiversity of the application site, where this is compatible with the above objectives.
- 3.2.3. Information on the existing situation at the application site with regards to habitats of ecological interest and the presence of protected, priority or otherwise notable species has been collated as part of the preparation of this document. This includes information gathered to inform the outline ES and the more recent surveys conducted in 2022, 2023 and 2025 by Ecology Solutions, as detailed within the Ecological Assessment. Together, these documents provide the baseline on which the mitigation strategies set out in this document are founded.

### 3.3. **Detailed Designs and Working Methods to achieve Objectives**

- 3.3.1. Information on the approaches to achieve the stated objectives is set out in the sections to follow. These are specifically designed to achieve the aims of the mitigation strategy set out in the ES, associated documents and Ecological Assessment.

## 4. Review of Site Potential and Constraints

4.1. This document has been informed by the background information accrued for the outline ES and by updated surveys undertaken by Ecology Solutions on the application site across 2022, 2023 and 2025, as detailed within the Ecological Assessment.

### 4.2. Constraints

4.2.1. The following main habitat / vegetation types were identified within the application site:

- Cereal crops;
- Modified grassland;
- Other neutral grassland;
- Bramble scrub;
- Tall forbs;
- Bare ground;
- Rural trees;
- Species-rich native hedgerows; and
- Ditches.

4.2.2. The location of these habitats are shown on Plan ECO2.

4.2.3. Habitats of value in the context of the application site include the other neutral grassland, Bramble *Rubus fruticosus* scrub, rural tree, species-rich native hedgerow and ditch habitats that comprise the field margins. The majority of the application site; however, is dominated by cereal crops of limited intrinsic nature conservation value.

4.2.4. None of the above habitats pose an overriding ecological constraint that would prevent the development proceeding, with the habitats of greater value being largely retained and enhanced as part of the green infrastructure for the application site.

4.2.5. Other ecological constraints within the application site, as illustrated on Plan ECOCON1, include the known or potential presence of Badgers, bats, Hazel Dormice, Hedgehogs *Erinaceus europaeus*, Harvest Mice *Micromys minutus*, Brown Hares *Lepus europaeus*, wintering and breeding birds, common reptiles, Common Toads *Bufo bufo* and invertebrates. Mitigation measures to address these constraints are detailed in later sections of this document.

- 4.2.6. There are no statutory or non-statutory sites of nature conservation interest within or immediately adjacent to the application site. The closest such sites are Haverhill Railway Walks LNR and Haverhill Disused Railway Line CWS, located approximately 900m beyond the southern boundary of the application site. This is beyond the existing built-up area of Haverhill and though the ES highlights the potential for dust deposition as an adverse effect, in Ecology Solutions view this is highly unlikely given the distance and prevailing wind direction, even if there were not a requirement for standard good construction practice to minimise dust on surrounding residential areas.

#### 4.3. **Potential**

- 4.3.1. The majority of the development associated with the application site will comprise residential properties and their associated infrastructure built within the intensively managed arable fields of intrinsically of low ecological interest. The application site possesses the potential for wildlife gains through the retention and enhancement of the best of the existing habitats, while promoting new opportunities through the strategies of green and blue infrastructure networks, in combination with the Infrastructure RMA. The establishment of new habitats and future management of the network will deliver significant benefits.
- 4.3.2. Surveys undertaken to inform the outline planning application and recent Ecological Assessment have confirmed the presence of a range of protected species on-site including foraging Badgers, with three outlier Badger setts also identified adjacent to site within Great Filed Plantation; a complement of bat species using the application site for foraging and dispersal; an assemblage of wintering and breeding birds and the presence of two species of reptile, namely the Common Lizard *Zootoca vivipara* and Grass Snake *Natrix Helvetica*. Some limited evidence of Dormice was recorded in the wider site subject to the outline application; however, no Dormice, or any evidence indicating the presence of this species, has been recorded within the application site or the adjacent off-site Great Filed Plantation, during the surveys conducted to date in 2023 and 2025.
- 4.3.3. Although they have not been observed within the application site, it is considered plausible that Hedgehogs and Harvest Mice utilise the application site, at least to some degree, given the habitats present and findings within the wider Redrow development. Brown Hare has also been observed off-site adjacent to Parcel A3. It is considered that, to a certain extent, this species would also be present on-site as the arable farmland that dominates the application site offers suitability for this species. Common Toad, a species identified within the wider Redrow development, albeit not in the application site, may also be present on-site employing the field boundary habitats. Additionally, the application site is expected to support a range of common invertebrates, albeit with interest limited by the intensive arable management.

- 4.3.4. While the majority of this RMA will comprise built form, significant enhancements are being provided for wildlife, particularly through the boundary landscaping.

4.4. **Survey Information**

- 4.4.1. This document is informed by the survey work completed as part of the outline planning application, which has been reviewed in full, and surveys carried out by Ecology Solutions on behalf of Redrow Homes in 2022, 2023 and 2025. The ecological constraints are well understood. The mitigation and enhancement strategy for this RMA has adopted in full the approved measures in the ES and ES Addendum accompanying the outline planning application. These are supported by information provided in Ecology Solutions Ecological Assessment and LEMP. The strategy is therefore comprehensive and robust.

## **5. Extent and Location/Area of Proposed Works**

- 5.1. The extent and location of all proposed works are shown on the Site Wide GA Plan and Planting Schedule produced by Exterior Architecture in consultation with Ecology Solutions.
- 5.2. These detailed documents, which are at an appropriate scale, clearly show the locations of all new and retained habitats, the degree of habitat loss and creation, and the protective measures to be employed throughout the period of construction.
- 5.3. This strategy refers to these sources throughout and should be read alongside them.
- 5.4. Summary plans (Plans ECO3a and ECO3b) are included within this EIS for an overview and ease of reference, but for the full detail refer to the Site Wide GA Plan and Planting Schedule.



## 6. Designated Sites

- 6.1. This section is concerned with addressing the effects on Haverhill Railway Walks LNR and Haverhill Disused Railway Line CWS as identified in the ES and Ecological Assessment.

6.2. **Conservation Objectives**

To avoid dust effects arising from development.

To avoid increased recreational disturbance.

6.3. **Designs and Working Methods**

*Dust Suppression*

- 6.3.1. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 6.3.2. A suitable vehicle and bowser will be kept on site and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.
- 6.3.3. It should be noted that suppression of dust during construction is a routine measure adopted by Redrow Homes on all sites, particularly where existing residential properties and / or features of ecological importance are present, hence this will be done in any event.
- 6.3.4. It is noted that the effects of dust on these designated sites were assessed as 'negligible' in the ES, even before mitigation.

*Recreational Opportunities*

- 6.3.5. The Redrow scheme includes a significant expanse of new public open space to be delivered as part of the infrastructure phase of development, as set out in the EIS and LEMP submitted to support the Infrastructure RMA. This new green infrastructure will be available for use by new residents, offering diverse opportunities for walking, dog-walking and general informal recreation. There will therefore be no adverse effects on any designated sites as a result.

## 7. Woodland Buffer

- 7.1. This section is concerned with the establishment and management of the new woodland / whip planting along the eastern boundary of the application site and northern boundary of Parcel A3, as well as the mitigation of effects on the adjacent off-site woodland (Great Field Plantation), as identified in the ES.

7.2. **Conservation Objectives**

To avoid adverse effects on retained woodland through direct encroachment.

To establish high quality new woodland.

To avoid adverse effects on new establishing woodland through direct encroachment.

7.3. **Designs and Working Methods**

*Construction Phase Mitigation*

- 7.3.1. All retained off-site woodland will be appropriately protected using robust fencing, i.e. Heras fencing or similar.
- 7.3.2. Tree root protection areas will be safeguarded through fencing complying with the British Standard BS 5837 (2012).
- 7.3.3. No storage of materials will be permitted within 10m of retained habitats and vehicle movements within this area will be for essential works only.
- 7.3.4. These measures will be the responsibility of the site manager.

*Dust Suppression*

- 7.3.5. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 7.3.6. A suitable vehicle and bowser will be kept on site and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.

*New Woodland*

- 7.3.7. New woodland habitat will be appropriately protected using robust fencing, i.e. Heras fencing or similar, until such time as it is properly established.
- 7.3.8. New woodland / whip planting situated along the eastern boundary of the application site and the northern boundary of Parcel A3 will comprise a mix of young native and non-native species (see Table 7.1 below). Long term management will encourage growth and diversification of this habitat.

**Table 7.1.** New woodland 'whip' planting composition.

Species
White-barked Himalayan Birch <i>Betula utilis</i> 'Jacquemontii'
Common Hawthorn <i>Crataegus monogyna</i>
Crab Apple <i>Malus</i> sp. 'Evereste'
Common Crab Apple <i>Malus sylvestris</i>
Scots Pine <i>Pinus sylvestris</i>
Aspen <i>Populus tremula</i>
Wild Cherry <i>Prunus avium</i>
Sessile Oak <i>Quercus petraea</i>
Rowan <i>Sorbus aucuparia</i>
Common Lime <i>Tilia x europaea</i>

#### 7.4. Initial Aftercare and Long-term Management and Maintenance

- 7.4.1. Trees will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, trees can be inspected annually if found to be establishing well.
- 7.4.2. Any trees that fail to establish within the first five years will be replaced with the same species of local provenance to the same specification and maintained for a subsequent five years. Tree replacement will occur in early spring or late autumn.
- 7.4.3. Trees will be triple-staked with a timber cross bar and soft string ties and will be protected with 600mm spiral Rabbit *Oryctolagus cuniculus* biodegradable guards. When no longer necessary, typically after three to five years, guards and stakes may be removed from the planting.
- 7.4.4. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.
- 7.4.5. Weeds, litter and debris around the woodland planting will be removed, as necessary.
- 7.4.6. Arboricultural management, such as pruning, will be carried out a qualified arboriculturist outside the bird nesting season (March – August inclusive) to avoid any potential offence, or within this period only after a Suitably Qualified Ecologist (SQE) has undertaken checks to ensure no nesting birds are present. Emergency pruning will be undertaken immediately after a critical fault is identified.
- 7.4.7. Thinning may occur, as necessary, to allow for the development of an understorey / ground flora.

## 8. Individual Trees

- 8.1. This section is concerned with the establishment and management of new individual trees throughout the application site and the mitigation of effects on retained individual trees as identified in the Ecological Assessment.

8.2. **Conservation Objectives**

To avoid adverse effects on retained trees through direct encroachment.

To establish high quality new habitats.

To avoid adverse effects on new establishing habitats through direct encroachment.

8.3. **Designs and Working Methods**

*Construction Phase Mitigation*

- 8.3.1. The application site was identified to contain four mature rural trees associated with the boundary hedgerows. These are all to be retained and appropriately protected using robust fencing, i.e. Heras fencing or similar.
- 8.3.2. Tree root protection areas will be safeguarded through fencing complying with the British Standard BS 5837 (2012).
- 8.3.3. Site personnel will be briefed as to the presence of these important retained areas.
- 8.3.4. No storage of materials will be permitted within 10m of retained habitats, and vehicle movements within this area will be for essential works only.
- 8.3.5. These measures will be the responsibility of the site manager.

*Dust Suppression*

- 8.3.6. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 8.3.7. A suitable vehicle and bowser will be kept on site and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.

*New Individual Trees*

- 8.3.8. New individual tree planting will be appropriately protected using robust fencing, i.e. Heras fencing or similar, until such time as they are properly established.

- 8.3.9. Individual trees planted across both the application site will comprise a range of young native, native cultivar and non-native species, as detailed in Table 8.1 below.

**Table 8.1.** Individual tree planting composition.

Species
Field Maple <i>Acer campestre</i>
Field Maple <i>Acer campestre</i> 'Streetwise'
Red Maple <i>Acer rubrum</i>
Cut-leaf Alder <i>Alnus glutinosa</i> 'Laciniata'
Silver Birch <i>Betula pendula</i>
Common Hornbeam <i>Carpinus betulus</i>
Atlas Cedar <i>Cedrus atlantica</i>
Lawson Cypress <i>Chamaecyparis lawsoniana</i> 'Golden Wonder'
Japanese Red Cedar <i>Cryptomeria japonica</i>
Sweet Gum <i>Liquidambar styraciflua</i>
Apple <i>Malus domestica</i> 'Discovery'
Common Crab Apple <i>Malus sylvestris</i>
Pedunculate Oak <i>Quercus robur</i>
Whitebeam <i>Sorbus aria</i> 'Majestica'
Rowan <i>Sorbus aucuparia</i>
Small-leaved Lime <i>Tilia cordata</i> 'Streetwise'

#### 8.4. Initial Aftercare and Long-term Management and Maintenance

- 8.4.1. Trees will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, trees can be inspected annually if found to be establishing well.
- 8.4.2. Any trees that fail to establish within the first five years will be replaced with the same species of local provenance to the same specification and maintained for a subsequent five years. Tree replacement will occur in early spring or late autumn.
- 8.4.3. Trees will be triple-staked with a timber cross bar and soft string ties and be protected with 600mm spiral Rabbit biodegradable guards. When no longer necessary, typically after three to five years, guards and stakes may be removed from the planting.
- 8.4.4. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.
- 8.4.5. A 500 mm radius weed-free ring will be maintained around each tree for the first five years to reduce competition from weed species for light and nutrients. This can be achieved by maintaining a layer of bark mulch (75mm

settled depth) around the base of each tree and by removing any weeds by hand. The mulch will be replenished every six months, as necessary, to maintain the desired depth.

- 8.4.6. Litter and debris around the tree planting will be removed as necessary.
- 8.4.7. Arboricultural management, e.g. pruning, will be carried out a qualified arboriculturist outside the bird nesting season (March – August inclusive) to avoid any potential offence, or within this period only after a SQE has undertaken checks to ensure no nesting birds are present. Emergency management will be undertaken immediately after a critical fault is identified.

## 9. Hedgerows

- 9.1. This section is concerned with the establishment and management of new hedgerows and the mitigation of effects on retained hedgerows across the application site.

9.2. **Conservation Objectives**

To maintain and establish high quality new, retained and enhanced hedgerows of ecological value.

To manage hedgerows to promote a dense structure and enhanced habitat for wildlife.

9.3. **Designs and Working Methods**

*Construction Phase Mitigation*

- 9.3.1. The application site is bounded by a series of species-rich native hedgerows which are to largely be retained post-development. As such, these features will require protection in the form of robust fencing, i.e. Heras fencing or similar.
- 9.3.2. Tree root protection areas will be safeguarded through fencing complying with the British Standard BS 5837 (2012).
- 9.3.3. Site personnel will be briefed as to the presence of these important retained areas.
- 9.3.4. No storage of materials will be permitted within 10m of retained habitats, and vehicle movements within this area will be for essential works only.
- 9.3.5. These measures will be the responsibility of the site manager.

*Dust Suppression*

- 9.3.6. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 9.3.7. A suitable vehicle and bowser will be kept on site, and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.

*New Hedgerows*

- 9.3.8. All new hedgerows will be appropriately protected using robust fencing, i.e. Heras fencing or similar, until such time as they are properly established.

- 9.3.9. New hedgerow planting will comprise a mix of native and non-native species, as detailed in Table 9.1 below.

**Table 9.1** Hedgerow planting composition.

Species
Field Maple <i>Acer campestre</i>
Common Dogwood <i>Cornus sanguinea</i>
Common Hazel <i>Corylus avellana</i>
Orange Cotoneaster <i>Cotoneaster franchetii</i>
Common Hawthorn <i>Crataegus monogyna</i>
Common Spindle Tree <i>Euonymus europaeus</i>
Common Privet <i>Ligustrum vulgare</i>
Common Crab Apple <i>Malus sylvestris</i>
Wild Cherry <i>Prunus avium</i>
Dog Rose <i>Rosa canina</i>
Common Elder <i>Sambucus nigra</i>
Guelder Rose <i>Viburnum opulus</i>

#### 9.4. Initial Aftercare and Long-term Management and Maintenance

- 9.4.1. Hedgerows will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, inspections may then be conducted annually if found to be establishing well.
- 9.4.2. Any shrubs within the hedgerows found to have failed within the first five years will be replaced and maintained for a subsequent five years. Replacement planting will utilise the same species of local provenance to the same specification as the failed planting and will occur in early spring or late autumn.
- 9.4.3. Hedgerows will be planted in double rows and surrounded by mulch matting throughout their establishment to keep their surroundings free of weeds, subsequently reducing competition for light and nutrients.
- 9.4.4. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.
- 9.4.5. Litter and debris around the hedgerows will be removed as necessary.
- 9.4.6. Annual pruning / trimming will be carried out outside the bird nesting season (March to August inclusive) to avoid any potential offence, or within this period only after a SQE has undertaken checks to ensure no nesting birds are present.



- 9.4.7. The retained hedgerows will also be laid on rotation by an experienced contractor, where appropriate, to encourage greater structural diversity and prevent gap formation.

## 10. Grassland

- 10.1. This section is concerned with the establishment of grassland habitat throughout the application site and the mitigation of effects upon this habitat as identified in the ES and Ecological Assessment.

10.2. **Conservation Objectives**

To establish high quality new habitat using appropriate native species mixes.

To maintain formal areas of grassland for greater recreational use.

To manage these habitats appropriate to maximise botanical and wildlife interest.

10.3. **Designs and Working Methods**

*Construction Phase Mitigation*

- 10.3.1. While the on-site grassland associated with the field boundaries is expected to be largely lost to facilitate the development, retained off-site grassland is present directly adjacent to the application site. This will be appropriately protected using robust fencing, i.e. Heras fencing or similar, and no storage of materials or tracking of machinery will occur in these areas.
- 10.3.2. Site personnel will be briefed as to the presence of these important retained areas.
- 10.3.3. No storage of materials will be permitted within 10m of retained habitats, and vehicle movements within this area will be for essential works only.
- 10.3.4. These measures will be the responsibility of the site manager.

*Dust Suppression*

- 10.3.5. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 10.3.6. A suitable vehicle and bowser will be kept on site, and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.

*New Grassland*

- 10.3.7. The landscaping for this RMA will include the establishment of new areas of grassland seeding utilising the EL1 Flowering Lawn Mixture, EM2F Standard General Purpose Wild Flowers, EL1F Wild Flowers for Lawns, RE3 Water Meadow and EW1 Woodland Mixture seed mixes from Emorsgate. The species assemblages of these, which will form areas of wildflower and

amenity grassland, in addition to being associated with the attenuation features and woodland, are detailed individually below in Tables 10.1 to 10.5.

**Table 10.1.** Emorsgate EL1 Flowering Lawn Mixture seed mix composition.

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Yarrow <i>Achillea millefolium</i>	1.00%
Kidney Vetch <i>Anthyllis vulneraria</i>	1.00%
Betony <i>Betonica officinalis</i>	0.40%
Common Knapweed <i>Centurea nigra</i>	1.50%
Hedge Bedstraw <i>Galium album</i>	0.40%
Lady's Bedstraw <i>Galium verum</i>	1.50%
Field Scabious <i>Knautia arvensis</i>	0.40%
Rough Hawkbit <i>Leontodon hispidus</i>	0.50%
Oxeye Daisy <i>Leucanthemum vulgare</i>	1.00%
Black Medick <i>Medicago lupulina</i>	1.00%
Ribwort Plantain <i>Plantago lanceolata</i>	0.40%
Hoary Plantain <i>Plantago media</i>	2.00%
Cowslip <i>Primula veris</i>	2.00%
Selfheal <i>Prunella vulgaris</i>	0.40%
Meadow Buttercup <i>Ranunculus acris</i>	0.40%
Bulbous Buttercup <i>Ranunculus bulbosus</i>	1.60%
White Clover <i>Trifolium repens</i>	4.00%
<b>Total</b>	<b>20.00%</b>
<b>Grasses</b>	
Common Bent <i>Agrostis capillaris</i>	8.00%
Crested Dog's-tail <i>Cynosurus cristatus</i>	28.00%
Red Fescue <i>Festuca rubra</i>	24.00%
Smaller Cat's-tail <i>Phleum bertolonii</i>	4.00%
Smooth-stalked Meadow-grass <i>Poa pratensis</i>	16.00%
<b>Total</b>	<b>80.00%</b>

**Table 10.2.** Emorsgate EM2F Standard General Purpose Wild Flowers seed mix composition.

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Yarrow <i>Achillea millefolium</i>	5.00%
Betony <i>Betonica officinalis</i>	5.00%

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Common Knapweed <i>Centaurea nigra</i>	15.00%
Wild Carrot <i>Daucus carota</i>	10.00%
Lady's Bedstraw <i>Galium verum</i>	2.50%
Meadow Cranesbill <i>Geranium pratense</i>	2.50%
Oxeye Daisy <i>Leucanthemum vulgare</i>	9.00%
Ribwort Plantain <i>Plantago lanceolata</i>	10.00%
Salad Burnet <i>Poterium sanguisorba</i> ssp. <i>sanguisorba</i>	10.00%
Cowslip <i>Primula veris</i>	7.00%
Selfheal <i>Prunella vulgaris</i>	7.50%
Meadow Buttercup <i>Ranunculus acris</i>	8.00%
Bulbous Buttercup <i>Ranunculus bulbous</i>	1.00%
Common Sorrel <i>Rumex acetosa</i>	2.50%
Bladder Campion <i>Silene vulgaris</i>	5.00%
<b>Total</b>	<b>100.00%</b>

**Table 10.3.** Emorsgate EL1F Wild Flowers for Lawns seed mix composition.

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Kidney Vetch <i>Anthyllis vulneraria</i>	2.00%
Betony <i>Betonica officinalis</i>	5.00%
Common Knapweed <i>Centaurea nigra</i>	10.00%
Hedge Bedstraw <i>Galium album</i>	5.00%
Lady's Bedstraw <i>Galium verum</i>	8.00%
Field Scabious <i>Knautia arvensis</i>	3.50%
Rough Hawkbit <i>Leontodon hispidus</i>	1.00%
Oxeye Daisy <i>Leucanthemum vulgare</i>	7.00%
Black Medick <i>Medicago lupulina</i>	5.00%
Ribwort Plantain <i>Plantago lanceolata</i>	12.00%
Cowslip <i>Primula veris</i>	10.00%
Selfheal <i>Prunella vulgaris</i>	3.50%
Bulbous Buttercup <i>Ranunculus bulbosus</i>	6.00%
White Clover <i>Trifolium repens</i>	22.00%
<b>Total</b>	<b>100%</b>

**Table 10.4.** Emorsgate RE3 Water Meadow seed mix composition.

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Meadowsweet <i>Filipendula ulmaria</i>	0.50%
Water Avens <i>Geum rivale</i>	0.10%
Soft Rush <i>Juncus effusus</i>	0.60%
Oxeye Daisy <i>Leucanthemum vulgare</i>	3.60%
Ragged Robbin <i>Lychnis flos-cuculi</i>	0.10%
Ribwort Plantain <i>Plantago lanceolata</i>	4.00%
Selfheal <i>Prunella vulgaris</i>	2.00%
Meadow Buttercup <i>Ranunculus acris</i>	1.90%
Yellow Rattle <i>Rhinanthus minor</i>	0.80%
Salad Burnet <i>Sanguisorba minor</i>	1.30%
Greater Stitchwort <i>Stellaria holostea</i>	0.10%
Dandelion <i>Taraxacum officinale</i>	1.00%
Red Clover <i>Trifolium pratense</i>	2.00%
White Clover <i>Trifolium repens</i>	2.00%
<b>Total</b>	<b>20.00%</b>
<b>Grasses</b>	
Common Bent <i>Agrostis capillaris</i>	2.50%
Creeping Bent <i>Agrostis stolonifera</i>	2.50%
Crested Dogstail <i>Cynosurus cristatus</i>	20.00%
Meadow Fescue <i>Festuca pratensis</i>	5.00%
Slender Creeping Red Fescue <i>Festuca rubra</i> ssp. <i>rubra</i>	25.00%
Yorkshire Fog <i>Holcus capillaris</i>	2.50%
Perennial Rye Grass <i>Lolium perenne</i>	5.00%
Timothy <i>Phleum bertolonii</i>	2.50%
Smooth-stalked Meadow-grass <i>Poa pratensis</i>	15.00%
<b>Total</b>	<b>80.00%</b>

**Table 10.5.** Emorsgate EW1 Woodland Mixture seed mix composition.

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Garlic Mustard <i>Alliaria petiolata</i>	2.00%
Ramsons <i>Allium ursinum</i>	1.00%
Wild Angelica <i>Angelica sylvestris</i>	0.50%
Cow Parsley <i>Anthriscus sylvestris</i>	1.40%

Species	Percentage Composition (%)
<b>Wildflowers</b>	
Lords-and-Ladies <i>Arum maculatum</i>	0.20%
Foxglove <i>Digitalis purpurea</i>	4.00%
Hemp-agrimony <i>Eupatorium cannabinum</i>	0.10%
Meadowsweet <i>Filipendula ulmaria</i>	0.90%
Hedge Bedstraw <i>Galium album</i>	1.50%
Water Avens <i>Geum rivale</i>	0.10%
Wood Avens <i>Geum urbanum</i>	2.00%
Bluebell <i>Hyacinthoides non-scripta</i>	1.60%
Primrose <i>Primula vulgaris</i>	0.10%
Selfheal <i>Prunella vulgaris</i>	1.00%
Meadow Buttercup <i>Ranunculus acris</i>	0.40%
Red Campion <i>Silene dioica</i>	3.00%
Wood Sage <i>Teucrium scorodonia</i>	0.20%
<b>Total</b>	<b>20.00%</b>
<b>Grasses</b>	
Common Bent <i>Agrostis capillaris</i>	2.40%
Sweet Vernal-grass <i>Anthoxanthum odoratum</i>	1.60%
False Brome <i>Brachypodium sylvaticum</i>	0.80%
Crested Dogstail <i>Cynosurus cristatus</i>	48.0%
Tufted Hair-grass <i>Deschampsia cespitosa</i>	1.60%
Red Fescue <i>Festuca rubra</i>	19.20%
Wood Meadow-grass <i>Poa nemoralis</i>	6.40%
<b>Total</b>	<b>80.00%</b>

#### 10.4. Initial Aftercare and Long-term Management and Maintenance

- 10.4.1. The seed mixes are best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture.
- 10.4.2. Should an area of grassland fail to establish, it will be re-seeded with the same seed mix in the following suitable season.
- 10.4.3. Watering will be required during periods of drought to ensure satisfactory establishment. Watering will be undertaken as required to maintain healthy plant growth.
- 10.4.4. Litter and debris around the hedgerows will be removed as necessary.
- 10.4.5. **Emorsgate EM2F Standard General Purpose Wild Flowers and Emorsgate RE3 Water Meadow.** Newly sown wildflower meadows and grassland

seeding associated with the attenuation features will be mown regularly throughout the first year of establishment to a height of 40-60mm. This will control annual weeds and help maintain balance between faster and slower developing species. During this period, cuttings will be removed, if dense, and residual perennial weeds will be carefully dug out or spot treated

- 10.4.6. In subsequent years traditional meadow management will be pursued. This will comprise a single cut to 50mm after flowering in July or August. The cuttings will then be left to dry and shed seed for 1-7 days, after which they will be retained as 'habitat piles' in suitable locations to encourage common reptiles.
- 10.4.7. **Emorsgate EW1 Woodland Mixture.** Associated with the newly established woodland / whip planting, this mix is expected to require very little ongoing management.
- 10.4.8. That said, in young or open woodland with higher light levels, the mix should be cut annually in mid-summer until the tree cover has established.
- 10.4.9. **Emorsgate EL1 Flowering Lawn Mixture and Emorsgate EL1F Wild Flowers for Lawns.** Newly sown wildflower rich amenity lawns should be mown every 7-10 days during the growing season of the first year to a height of 40-60mm. Residual perennial weeds will be carefully dug out or spot treated.
- 10.4.10. After the first year, the grass will be mown regularly to a height of 25-40mm. Management can be relaxed from late June for 4-8 weeks to allow for flowering (mowing may be suspended earlier to allow for Cowslip *Primula veris* to flower). Heavy quantities of cuttings should be collected and removed from site.

## 11. Introduced Shrub

- 11.1. This section is concerned with the establishment of introduced shrub planting throughout the application site. While primarily for ornamental purposes, this habitat does contribute towards the provision of green infrastructure across the application site, with flowering species elevating the opportunities for invertebrates.

### 11.2. Conservation Objectives

To establish high quality new habitats using appropriate native and non-native species mixes.

To establish and maintain a species-rich habitat to increase the ecological value of the application site, reduce impacts of vehicular movement and provide buffer zone habitat for wildlife.

### 11.3. Designs and Working Methods

#### *Construction Phase Mitigation and Dust Suppression*

- 11.3.1. No ornamental planting is present on or adjacent to the application site pre-development, therefore construction phase mitigation, including dust suppression, for this habitat type is not warranted.

#### *New Introduced shrub planting*

- 11.3.2. Introduced shrub planting will be incorporated into the village green, which will act as a communal open space for residents, in addition to being associated with the frontages of the residential properties, access roads / transportation corridors and towards the woodland parcels. The species assembly of this planting is illustrated in Tables 11.1 to 11.5 below.

**Table 11.1.** Village Green Mix composition.

Species
Japanese Anemone <i>Anemone hupehensis</i>
Common Snowdrop <i>Galanthus nivalis</i>
White Bloody Cranesbill <i>Geranium sanguineum</i> 'Album'
Autumn Ox-eye <i>Leucanthemella serotina</i>
Snowy Wood-rush <i>Luzula nivea</i>
Daffodil <i>Narcissus</i> sp. 'Mount Hood'
Common Bistort <i>Persicaria bistorta</i>
Lesser Periwinkle <i>Vinca minor</i> 'Argenteovariegata'



**Table 11.2.** A3-NE Ornamental Mix composition.

Species
Hard Fern <i>Blechnum spicant</i>
Japanese Sedge <i>Carex morrowii</i> 'Ice Dance'
Foxglove <i>Digitalis purpurea</i>
Mrs Robb's Bonnet <i>Euphorbia amygdaloides</i> var. <i>robbiae</i>
White Bloody Cranesbill <i>Geranium sanguineum</i> 'Album'
Christmas Rose <i>Helleborus niger</i>
White Lesser Periwinkle <i>Vinca minor</i> 'Alba'

**Table 11.3.** A3-SW Ornamental Mix, A5-NE Ornamental Mix and A5-SW Ornamental Mix composition.

Species
Ornamental Onion <i>Allium</i> sp. 'Mount Everest'
Ornamental Onion <i>Allium</i> sp. 'Purple Sensation'
Cranesbill <i>Geranium</i> sp. 'Orion'
lavender <i>Lavandula angustifolia</i>
Nest Moor Grass <i>Sesleria nitida</i>
Lambs' Ears <i>Stachys byzantina</i>
White Lesser Periwinkle <i>Vinca minor</i> 'Alba'

**Table 11.4.** Road Buffer composition.

Species
Christmas Rose <i>Helleborus niger</i>
Box-leaved Holly <i>Ilex crenata</i>
Fortune's Osmanthus <i>Osmanthus x fortunei</i>
Japanese Spurge <i>Pachysandra terminalis</i>
Sweet Box <i>Sarcococca confusa</i>
Common Yew <i>Taxus baccata</i>
Common Gorse <i>Ulex europaeus</i>

**Table 11.5.** Woodland Mix composition.

Species
Siberian Bugloss <i>Brunnera macrophylla</i>
Christmas Rose <i>Helleborus niger</i>
Box-leaved Holly <i>Ilex crenata</i>
Japanese Spurge <i>Pachysandra terminalis</i>
Sweet Box <i>Sarcococca confusa</i>

Species
Common Yew <i>Taxus baccata</i>
White Lesser Periwinkle <i>Vinca minor</i> 'Alba'

#### 11.4. Initial Aftercare and Long-term Management and Maintenance

- 11.4.1. Introduced shrubs will be inspected monthly for the first year after planting, to ensure that they are healthy and not diseased, damaged, or dead, with bi-monthly inspections to occur thereafter, if found to be establishing well.
- 11.4.2. Any introduced shrubs found to have failed within the first five years will be replaced with the same species to the same specifications and maintained for a subsequent five years.
- 11.4.3. Introduced shrubs will be surrounded by a layer of bark mulch approximately 75mm deep to reduce competition from weed species for light and nutrients. This mulch will be replenished every six months, as necessary, to maintain the desired depth.
- 11.4.4. If particular species are spreading vigorously and impacting other species' establishment or success, they will be divided, and the excess plant material removed from the application site.
- 11.4.5. The removal of undesirable weed species will occur on a monthly basis. The use of pesticides (herbicides, insecticides, fungicides and slug pellets, etc.) will be avoided, where possible, with removal instead to be undertaken by hand.
- 11.4.6. Deadheading of herbaceous plants will be undertaken following flowering and when flower heads have died off, on an annual basis between August and November depending on the species used. All arisings are to be removed.
- 11.4.7. The dead stems of grasses and perennial species from the previous summer's growth will be cut back after the winter period (mid to late March) annually, with all arisings again to be removed and disposed of off-site.
- 11.4.8. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.
- 11.4.9. Litter and debris around the introduced shrub will be removed as necessary.

## 12. Attenuation Features

- 12.1. This section is concerned with the protection of the existing ditches bounding the application site and the creation of new Sustainable Drainage Systems (SuDS) and swales.

12.2. **Conservation Objectives**

To avoid adverse effects on retained riparian habitats through direct encroachment.

To avoid adverse effects on new establishing habitats through direct encroachment.

To establish and maintain a species-rich SuDS to increase the ecological value of the application site.

12.3. **Designs and Working Methods**

*Construction Phase Mitigation*

- 12.3.1. All retained ditches will be appropriately protected using robust fencing, i.e. Heras fencing or similar.
- 12.3.2. Site personnel will be briefed as to the presence of these important retained areas.
- 12.3.3. No storage of materials will be permitted within 10m of the retained habitats and vehicle movements within these areas will be for essential works only.
- 12.3.4. Particular regard will be had as to the management of on-site waste disposal, with regular checks of watercourses being undertaken for signs of litter.
- 12.3.5. These measures will be the responsibility of the site manager.

*Dust Suppression*

- 12.3.6. The preparation of the arable land for development is not considered likely to produce high levels of dust, but during periods of dry weather the work area will be sprayed with water.
- 12.3.7. A suitable vehicle and bowser will be kept on site and the assessment of dust effects will be allocated to a suitable individual by the site manager, who will have ultimate responsibility for implementing the measure.

*New Attenuation Features*

- 12.3.8. All new habitats will be appropriately protected using robust fencing, i.e. Heras fencing or similar, until such time as they are properly established.

- 12.3.9. The new SuDS will be planted with a range of marginal species, as detailed within Table 12.1. These SuDS, in addition to the swales, will also be seeded with Emorsgate RE3 Water Meadow seed mix, the composition and management of which is detailed above in Section 10.

**Table 12.1.** SuDS Mix composition.

Species
Marsh Marigold <i>Caltha palustris</i>
Lesser Pond Sedge <i>Carex acutiformis</i>
Common Spike Rush <i>Eleocharis palustris</i>
Water Avens <i>Geum rivale</i>
Yellow Flag Iris <i>Iris pseudacorus</i>
Purple Loosestrife <i>Lythrum salicaria</i>
Water Mint <i>Mentha aquatica</i>
Reed Canary Grass <i>Phalaris arundinacea</i>

#### 12.4. Initial Aftercare and Long-term Management and Maintenance

- 12.4.1. The SuDS Mix planting will require relatively little management; however, should any of these plants fail to establish they will be replaced with the same species of local provenance to the same specification during the following planting season.
- 12.4.2. Watering will be required during periods of drought to ensure satisfactory establishment. Watering will be undertaken as required to maintain healthy plant growth.
- 12.4.3. Litter and debris within retained and newly established features will be removed as necessary.
- 12.4.4. No fertilizers will be used on, or in the vicinity of, either the retained ditches or the newly constructed SuDS and swales.

## 13. Badgers

### 13.1. Baseline Conditions

- 13.1.1. Three off-site outlier Badger setts have been identified within Great Field Plantation. As of the latest survey in April 2025, two of these setts appeared inactive, while the while the third contained a single entrance that appeared active, albeit likely only infrequently used.
- 13.1.2. Furthermore, the hedgerow and grassland field margin habitats, in addition to Great Field Plantation, are considered to offer foraging and commuting opportunities for this species.

### 13.2. Conservation Objectives

To avoid disturbance to Badger setts during construction.

To avoid Badgers becoming trapped in excavations or otherwise injuring themselves in the construction area.

### 13.3. Designs and Working Methods

#### *Construction Phase*

- 13.3.1. All retained hedgerows and adjacent off-site woodland will be fenced using Heras fencing, or similar. This will avoid the possibility of direct encroachment on principal Badger habitats.
- 13.3.2. To avoid any adverse effects on the off-site outlier setts, a consultation zone will be established around these features, within which no heavy machinery will be used within 30m, no light machinery will be used within 20m and no hand tools will be used within 10m, without prior discussion with an ecologist. All site personnel working in the vicinity of the setts will be made aware of the presence of Badgers in the locality and of the location of the setts.
- 13.3.3. Any works or movement of machinery that are required in this area will be discussed with the project ecologist, who will advise on how to proceed. At the time of writing, it is considered that with due care and attention and adherence to best practice, these works could be undertaken without the need to obtain a Natural England licence. This would be kept under review by the project ecologist in consultation with the applicant and the construction team.
- 13.3.4. Badgers are an especially mobile species that often extend existing setts and excavate new ones in areas of suitable habitat. New setts may be excavated within construction areas during the period between the survey work undertaken and the commencement of site clearance and construction works. Were construction to proceed directly, involving the use of heavy machinery, newly excavated setts or entrances may be adversely affected,

leading to collapse of entrances and tunnels and possible Badger injury or mortality.

- 13.3.5. In addition, the potential exists for Badgers to roam into areas where construction is underway and become trapped in trenches, excavate new setts in piles of subsoil or disturb chemicals that may be being used for development.
- 13.3.6. Given this, checks will be undertaken by a SQE prior to the commencement of any works within the application site to ensure no new setts have been established. Additional surveys, to be undertaken monthly by an Ecological Clerk of Works (ECoW), will also occur throughout the construction works. During this period, the site manager will also be in regular contact with the ECoW to discuss any new excavations that may require inspection.
- 13.3.7. In the event that a sett is recorded the project ecologist would take a view as to whether a Natural England licence will be required to close it. This licence would be obtained from Natural England and appropriate mitigation measures implemented according to the particular requirements of the situation. There is no evidence to suggest that such a licence will be required at the time of writing.
- 13.3.8. All site personnel will be made aware of the potential presence of this species, with this forming part of the site induction.
- 13.3.9. The following measures will be followed throughout the construction phase of development.
- All site personnel will be made aware of the presence of this species and the appropriate steps required to ensure the safety of the Badgers while on site;
  - Inclines and mounds of loose soil present ideal habitats for Badgers seeking to establish new setts; therefore, during the construction process, all dug ground and loose soil will be levelled and compacted wherever possible. This will prevent Badgers from attempting to excavate setts prior to completion of the works and causing potential disruption;
  - Any mounds of material will be regularly checked for signs of Badgers, especially before disturbance or movement;
  - Planks, roughened to provide grip, will be left as ramps in any uncovered trenches to provide any Badger that may stray onto the application site with an escape route;
  - Any open trenches will be checked at the beginning of each day, to ensure that Badgers are not present, and at the end of each day, to ensure that the means of escape remain in place;

- Tools and loose materials will be stored in an appropriate container in order to reduce the risk of Badgers coming onto site and injuring themselves;
- No fires or chemicals should be left unsupervised anywhere on the application site;
- Any open pipework greater than 150mm outside diameter will be capped off at the end of each working day to prevent Badgers from entering the pipework; and
- Driven piling work will be undertaken only following consultation with the project ecologist.

13.3.10. In the event that any suspected Badger activity is observed during construction, work in the area will cease and the project ecologist will be contacted for advice.

#### *Operational Phase Mitigation and Enhancement*

13.3.11. New foraging opportunities will be provided for Badgers towards the boundaries of the application site, particularly through the provision of woodland planting and wildflower seeding, with connectivity to the habitats to be delivered as part of the Infrastructure RMA also offered. Once established, this will offer enhanced foraging resources over the existing arable landscape, with a greater area of habitats to encourage invertebrates, such as earthworms, plus fruit-bearing trees and scrub.

13.3.12. All bin stores will be locked securely to ensure they cannot be accessed by Badgers.

#### **13.4. Type and Source of Material**

13.4.1. No specific materials are required.

#### **13.5. Initial Aftercare and Long-term Management and Maintenance**

13.5.1. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 14. Bats

### 14.1. Baseline Conditions

- 14.1.1. The application site offers opportunities for roosting bats in the form of two mature Oak *Quercus* sp. trees associated with the field margin habitats along the northern and eastern boundaries of Parcel A5. These were assessed as being of low suitability to this group (PRF-I), with broken branches and loose bark, potentially offering opportunities for individual / small numbers of bats.
- 14.1.2. Suitability for foraging and commuting bats is associated with the field margin hedgerow, tree and other neutral grassland habitats, in addition to the off-site adjacent Great Field Plantation. Nine bat species were recorded within the application site in 2022 and 2023, by far the most abundant of which were Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus*, both regularly observed foraging and commuting along the above-mentioned boundary features. Additional species registered, if only at a low frequency, include Nathusius' Pipistrelle *Pipistrellus nathusii*, Noctule *Nyctalus noctula*, Leisler's Bat *Nyctalus leisleri*, Serotine *Eptesicus serotinus*, *Myotis* sp., Brown Long-eared Bat *Plecotus auritus* and Barbastelle *Barbastella barbastellus*.
- 14.1.3. Both trees that offer roosting potential for bats are to be retained and protected throughout the development. The hedgerows and trees, which offer greater foraging and commuting opportunities for this species, are to be largely retained and accompanied by new wildflower grassland seeding and woodland / whip planting. Great Field Plantation is to be retained and enhanced as part of the Infrastructure RMA.

### 14.2. Conservation Objectives

To avoid disturbance to bat foraging during construction.  
To avoid effects on bat foraging during operation.

### 14.3. Designs and Working Methods

#### *Construction Phase Mitigation*

- 14.3.1. During the construction period, no artificial lighting will be present at night on identified foraging routes for bats. This will be the responsibility of the site manager.

#### *New Habitat Planting*

- 14.3.2. The retained hedgerows and associated individual trees will be bolstered through new woodland / whip planting along the eastern and northern application site boundaries, in addition to individual tree planting throughout



site. This planting will include native species, increasing species diversity, and will strengthen the corridors around the site for foraging and commuting bats.

- 14.3.3. Management of the hedgerows will be undertaken in an ecologically sensitive manner to enhance the nature conservation value. Such management will include allowing the hedgerows to reach at least a height of 3m. Once reached, the hedgerows can be 'topped out' to maintain the height or to suit circumstances, with a width of at least 1-2m. Grassland along the hedgerow base will also be allowed to grow to provide a graduated sward height, with wildflower meadow seeding around the application site boundary elevating invertebrate suitability and, therefore, foraging opportunities for bats.
- 14.3.4. The attenuation features to be established both as part of the development of the application site, as well as the Infrastructure RMA, will offer new foraging resources for bats, once established. Seeding with a damp grassland mix, as well as the provision of marginal planting within the SuDS, will encourage use by invertebrates and increase the foraging opportunities for the local bat population.

#### *Dark Corridors*

- 14.3.5. Dark corridors for bats are to be maintained across the application site, as set out in the *Lighting Strategy for Bats* submitted with the Infrastructure RMA. These corridors are not, for the most part, within or adjacent to the first Residential RMA.
- 14.3.6. New houses will be a minimum of 10m from the woodland edge. Street lighting will be a minimum of 15m from the woodland edge. Cowls will be used to direct light away from the woodland edge. All upward lighting will be avoided.
- 14.3.7. Security lighting on properties backing on to sensitive hedgerows and woodland will be low wattage LED which will be provided on the properties at construction to forestall a future homeowner installing unsuitable lighting which could impact on bats.

#### *Bat Boxes*

- 14.3.8. The focus with regards to the provision of new roosting opportunities will be the newly constructed buildings.
- 14.3.9. New garages associated with each property will each include a bat access tile as part of their roof. Breathable Roofing Membranes will not be used.
- 14.3.10. Each Parcel will also have twelve Schwegler 1FR integrated bat boxes installed at a height of at least 4m facing in a southerly / south-easterly / south-westerly direction.

- 14.3.11. Bat boxes will be checked by a licenced bat ecologist annually. Any boxes found to be damaged will be mended / replaced, as necessary.

#### 14.4. **Type and Source of Material**

- 14.4.1. Schwegler 1FR bat boxes and bat tiles will be installed within the newly constructed buildings throughout the application site. Specifications for these features are provided in Appendix 3.

#### 14.5. **Initial Aftercare and Long-term Management and Maintenance**

- 14.5.1. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 15. Dormice

### 15.1. Baseline Conditions

- 15.1.1. While surveys are ongoing, no evidence of Hazel Dormouse has been recorded within the application site, nor any of their directly adjacent habitats, to date. Given the majority of the application site is comprised of arable fields, opportunities for this species on-site are limited to the boundary species-rich native hedgerows, as well as the adjacent off-site Great Field Plantation.
- 15.1.2. A Dormouse nest was recorded within Parcel A4, to the west of Great Field Plantation; however, during a survey undertaken in April 2019. No other evidence of Dormice has been recorded within the Redrow site, although a partial Dormouse nest was recorded in the south-east of the wider site in 2015 during surveys to inform the outline ES.

### 15.2. Conservation Objectives

To avoid potential killing or injury of any Dormice that may be present.

To establish and enhance suitable habitat for Dormice within the application site.

### 15.3. Designs and Working Methods

#### *Construction Phase Mitigation*

- 15.3.1. At present, it is understood that this RMA will not have an effect on Dormouse habitat and, as such, there is no requirement for a Natural England licence.
- 15.3.2. During the construction period, all contractors will be briefed about the importance of the habitats within the application site for Dormice and that care should be taken when conducting any works near existing natural features. The majority of the suitable habitat for this species is to be protected and retained post-development, with only small sections to be lost to facilitate access between the development parcels.
- 15.3.3. Where site offices, material and vehicle storage are proposed, and where the phased development commences, all retained natural habitats will be fenced off with an appropriate buffer using Heras fencing, or similar. This will ensure that these habitats are not degraded through soil compaction and interference by contractors and machinery.

#### *Habitat Enhancements and Management*

- 15.3.4. The retained habitats will be bolstered by additional woodland and hedgerow planting that will benefit Dormice foraging, commuting and nest building.

- 15.3.5. Management will include the rotational cutting of sections of hedgerows at three-to-five-year intervals and / or hedgerow laying. Such measures will ensure good structure is maintained and fruiting bodies are increased.

*Nest Boxes*

- 15.3.6. A number of Dormouse nest boxes will be installed within suitable hedgerows to increase the nesting opportunities within the application site and thus increase the carrying capacity in the long term. These will be monitored to ensure they remain viable as nesting features and will also be used for future assessment of the population. Location of Dormouse nesting boxes can be determined and discussed with the project ecologist.

**15.4. Type and Source of Material**

- 15.4.1. Three boxes will be installed within suitable and retained habitat within the application site. Locations for Dormouse boxes will be determined by the project ecologist.

**15.5. Type and Source of Material**

- 15.5.1. Nesting boxes will be checked annually in March by a SQE for the first five years following installation to ensure that they are still in situ and are not damaged. Boxes will be replaced if found to be damaged.

## 16. Other Mammals

### 16.1. Baseline Conditions

- 16.1.1. The habitats present within the application site are considered to contain suitable habitat to support Hedgehogs, Harvest Mice and Brown Hares.
- 16.1.2. The other neutral grassland and species-rich native hedgerow field margins offer foraging, dispersal and, in the latter instance, hibernation opportunities for Hedgehogs, likely heightened by the adjacent Great Field Plantation. Although no sightings of this species on-site have occurred, given the presence of suitable habitat on and adjacent to site the potential presence of this species cannot be ruled out.
- 16.1.3. No sightings for Harvest Mouse have occurred on the application site, nor have any specific surveys for this species been undertaken. That said, this species has been previously found within the Redrow development, with suitable other neutral grassland and species-rich native hedgerow habitats capable of supporting this species present on-site. Given this, the potential utilisation of the application site by this species, at least to some degree, cannot be ruled out.
- 16.1.4. Two Brown Hares were observed on the former arable field adjacent to the western boundary of Parcel A3 during a breeding bird survey on 19 April 2023. Although not observed on-site, given the close proximity of this sighting, combined with the presence of arable farmland suitable for supporting this species on-site, it cannot be ruled out that this species would utilise the application site to some small degree.

### 16.2. Conservation Objectives

To avoid killing or injury of priority mammals during construction.

To provide greater opportunities for priority mammals within the application site.

### 16.3. Designs and Working Methods

#### *Construction Phase Mitigation and Vegetation Clearance*

- 16.3.1. Much of the suitable habitat for Hedgehogs and Harvest Mice, in the form of the boundary hedgerows, is to be protected and retained post-development.
- 16.3.2. Ground cover will be cleared outside of the winter hibernation period for Hedgehogs (October – April), wherever possible. Where this is not possible, a check for hibernation nests will be completed by the ECoW prior to clearance.

- 16.3.3. The removal of sections of hedgerow will be carried out in a sensitive manner, using hand tools to clear the base of the trees to be removed prior to any large machinery pulling out roots.
- 16.3.4. Any clearance of log piles or other shelter features will be subject to inspection by the ECoW to ensure that Hedgehogs are absent. In the event that an individual is encountered, it will be carefully placed in an appropriate lidded box and immediately removed to an area of suitable habitat at the margins of the application site away from working areas.
- 16.3.5. Any trenches or deep pits associated with construction that are to be left open overnight will be provided with a means of escape in case a Hedgehog enters. This is particularly important if the trench fills with water and will take the form of a roughened plank of wood placed in the trench as a ramp to the surface.
- 16.3.6. Mitigation for Harvest Mice within areas of other neutral grassland that are to be lost will be conducted in concert with the mitigation recommended for common reptile species, as detailed below in Section 18.
- 16.3.7. Although the loss of arable farmland will occur to facilitate the development, numerous alternative arable fields are present in the vicinity of the application site to support Brown Hares, with further relatively large areas of grassland habitat to be provided through the Infrastructure RMA to the south of site. As such, no specific mitigation is recommended for this species.

#### *New Habitat Planting*

- 16.3.8. The retention the majority of the hedgerows, along with additional woodland / whip planting and wildflower seeding, will provide continued opportunities for Hedgehogs and Harvest Mice on-site and ensure good connectivity with other suitable habitats within the wider site.
- 16.3.9. Additional suitable habitat to support a range of mammal species is to be delivered within both the first residential RMA and, in particular, the Infrastructure RMA.

#### *Hedgehog Gateways*

- 16.3.10. Access to new housing areas within the application site will be a benefit for Hedgehogs and, through being connected, new residential gardens will offer new potential habitat for Hedgehogs and other small mammals. Garden fences will be provided with a 'Hedgehog Gateway', a 13cm x13cm section of fence cut out at the base to facilitate dispersal for Hedgehogs and other small animals. This will enhance the permeability of the new development for wildlife.

16.4. **Type and Source of Material**

16.4.1. Example Hedgehog Gateways are illustrated in Appendix 4.

16.5. **Initial Aftercare and Long-term Management and Maintenance**

16.5.1. An initial assessment will be made to ensure that Hedgehog Gateways have been established. No long-term management or maintenance is required.

## 17. Birds

### 17.1. Baseline Conditions

17.1.1. The species-rich native hedgerows and trees bounding the application site are considered to provide suitability for foraging and nesting birds, heightened by the adjacent off-site Great Field Plantation. The arable fields and their other neutral grassland field margins also offer opportunities for ground nesting species.

17.1.2. Six wintering bird surveys have been completed by Ecology Solutions in December 2022, January and February 2023 and January, mid-February and late-February 2025. A total of 39 bird species were recorded on, flying over, or immediately adjacent to the application site, including three species that are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), nine species listed under Section 41 of the NERC Act 2006 (as amended), two species listed on The Birds of Conservation Concern (BoCC) 5 Red List and seven species listed on the BoCC 5 Amber List, as set out below:

Sparrowhawk <i>Accipiter nisus</i>	Red Kite <i>Milvus milvus</i>
Skylark	Grey Partridge <i>Perdix perdix</i>
Mallard <i>Anas platyrhynchos</i>	Duncock
Meadow Pipit <i>Anthus pratensis</i>	Woodcock <i>Scolopax rusticola</i>
Black-headed Gull <i>Chroicocephalus ridibundus</i>	Starling
Stock Dove <i>Columba oenas</i>	Redwing <i>Turdus iliacus</i>
Wood Pigeon <i>Columba palumbus</i>	Song Thrush
Yellowhammer <i>Emberiza citronella</i>	Fieldfare <i>Turdus pilaris</i>
Reed Bunting <i>Emberiza schoeniclus</i>	Mistle Thrush <i>Turdus viscivorus</i>
Kestrel <i>Falco tinnunculus</i>	Wren <i>Troglodytes troglodytes</i>
Herring Gull <i>Larus argentatus</i>	

17.1.3. Three breeding bird surveys were undertaken by Ecology Solutions in April, May and June 2023, with a further survey conducted in April 2025. Twenty-eight species were recorded on, flying over, or immediately adjacent to the application site during these surveys. This includes six species listed under Section 41 of the NERC Act 2006 (as amended) and five species listed on the BoCC Amber List, as detailed below:

Skylark	Herring Gull
Meadow Pipit	Linnet <i>Linaria cannabina</i>
Stock Dove	Duncock
Wood Pigeon	Whitethroat <i>Sylvia communis</i>
Yellowhammer	Wren
Reed Bunting	



- 17.1.4. No bird species were confirmed to be nesting on-site; however, two Carrion Crow *Corvus corone* nests were identified adjacent to the application site. Additionally, Skylark, Linnet, Greater Spotted Woodpecker *Dendrocopos major*, Robin *Erithacus rubecula*, Great Tit *Parus major*, Chiffchaff *Phylloscopus collybita*, Dunnock, Blackcap *Sylvia atricapilla*, Wren and Blackbird *Turdus merula* are all considered to be possible breeders.
- 17.1.5. Further observations made during bat activity transect surveys conducted by Ecology Solutions in 2023 have also identified the presence of Tawny Owl *Strix aluco* and Barn Owl *Tyto alba*.

## 17.2. Conservation Objectives

To safeguard bird nesting and foraging habitats during construction.  
To avoid damage or destruction of birds' nests during construction.  
To provide greater opportunities for birds within the application site.

## 17.3. Designs and Working Methods

### *Nesting Bird Checks*

- 17.3.1. In order avoid impacts on nesting birds and to avoid a potential offence under the Wildlife and Countryside Act 1981 (as amended), all necessary clearance of vegetation would be undertaken outside of the bird breeding season (March to August inclusive) wherever possible. Where this is not possible, a check survey of vegetation by an experienced ecologist would be undertaken immediately prior to clearance. In the event that a nest was found to be present, the vegetation would be left uncleared with a 5m exclusion zone around it until the young had fledged.

### *Fencing of Retained Habitats*

- 17.3.2. All retained hedgerows, trees and off-site woodland will be fenced using Heras fencing, or similar, to avoid possible encroachment. All site personnel will be briefed as to the importance of these areas for nesting birds as part of the application site induction.

### *New Habitat Planting*

- 17.3.3. The scheme includes habitat enhancements in the form of woodland / whip planting along the eastern and northern boundaries and native and ornamental individual tree planting throughout the application site. These new habitats will offer increased foraging and dispersal opportunities for birds, in addition to new nesting opportunities, once matured.

- 17.3.4. Some suitable wildflower grassland will be present within the application site to support Skylark, albeit limited in scope, with far higher suitability offered for this species through the new tussocky wildflower grassland to be created as part of the Infrastructure RMA.

#### *Bird Boxes*

- 17.3.5. Integrated Habitat Swift nest boxes and Habitat Sparrow Terraces will be incorporated into the newly constructed buildings. Within each parcel, eighteen Swift boxes should be placed in groups of three, to allow for colony formation, under the eaves of the new buildings in a location that allows a clear flight path in front of the box. For each parcel, six Sparrow Terraces, each containing three separate compartments, will also be incorporated at a height of at least three metres into the new buildings. Bird boxes should be orientated north or east.

### 17.4. **Type and Source of Material**

- 17.4.1. Habitat Swift nest boxes and Habitat Sparrow Terraces will be incorporated into the newly constructed buildings. Specifications are provided in Appendix 5.

### 17.5. **Initial Aftercare and Long-term Management and Maintenance**

- 17.5.1. Bird boxes will be checked periodically (at least once a year in March) by a SQE for the first five years following installation to ensure that they are still in situ and are not damaged. Boxes will be replaced if found to be damaged.
- 17.5.2. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 18. Reptiles

### 18.1. Baseline Conditions

- 18.1.1. Suitable habitat for common reptile species is limited to the other neutral grassland field margins, with the majority of the application site comprising arable farmland of negligible suitability for this group. Common Lizard and Grass Snake were recorded within these field margins around the eastern, southern and western boundaries of Parcel A3 during presence / absence surveys conducted by Ecology Solutions in 2023, with a small population of Grass Snakes also identified along the eastern and western boundaries of Parcel A5 during this survey effort. More recent ongoing survey work in April 2025 has confirmed that Common Lizards continue to be present around the boundary of Parcel A3.
- 18.1.2. Populations of Grass Snake and Common Lizard have also been recorded across the Redrow site as a whole during surveys undertaken in 2019.

### 18.2. Conservation Objectives

To safeguard reptile habitats during construction.
To provide greater opportunities for reptiles within the application site.

### 18.3. Designs and Working Methods

#### *Passive Displacement*

- 18.3.1. Where habitats used by reptiles exist within the application site, mitigation measures will be put into place to ensure that no offence is caused under the Wildlife and Countryside Act 1981 (as amended). This will include passive displacement and fencing of sensitive areas.
- 18.3.2. Passive displacement will involve the intensive management of the existing habitats favourable to reptiles, through a cutting regime which will encourage reptiles to move away from such areas. Cuts will be undertaken using a hand trimmer with an initial cut of 200mm, followed by a cut of 100mm 24 hours later and then cut as short as possible. Displacement will occur ahead of development, when reptiles are active (between mid-March and October) and during favourable weather conditions. All cuttings and other debris will be removed to avoid creating places of refuge. Following the passive displacement exercise, topsoil will be stripped to remove any suitability for reptiles. All works will be undertaken under the supervision of a SQE.

#### *Fencing of Retained Habitats*

- 18.3.3. All retained habitat will be fenced using Heras fencing, or similar, to avoid possible encroachment. All site personnel will be briefed as to the importance of these areas for reptiles as part of the site induction.

### *New Habitat Planting and Hibernation Features*

- 18.3.4. The landscaping within the application site will link to larger areas of green infrastructure to be created as part of the Infrastructure RMA. Wildflower grassland will be established to provide the nectar sources for invertebrate / prey items, basking areas and safe passages through undergrowth. Similarly, green infrastructure will provide commuting and dispersal opportunities for reptiles across the application site to the grassland areas.
- 18.3.5. The provision of reptile hibernaculum / log piles within areas of newly established habitat at the fringes of the development would ensure refuge and hibernation opportunities for this group.

### **18.4. Type and Source of Material**

- 18.4.1. Example reptile hibernacula illustrated in Appendix 6.

### **18.5. Initial Aftercare and Long-term Management and Maintenance**

- 18.5.1. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 19. Amphibians

### 19.1. Baseline Conditions

- 19.1.1. No suitable aquatic habitats for Great Crested Newts *Triturus cristatus* is present within or adjacent to the application site and, although some terrestrial habitat is present, this is limited to the other neutral grassland field margins, with the majority of the application site dominated by arable farmland of negligible terrestrial suitability.
- 19.1.2. No Great Crested Newts have been recorded within the Redrow site and there are no records for Great Crested Newts in the local area. Ponds within 500m of the application site were subject to eDNA testing in 2025, where permission was granted, the results of which indicated the absence of this species.
- 19.1.3. Although not observed in the application site, Common Toad has been identified within the wider Redrow site and, given the presence of suitable habitat in the form of ditches and other neutral grassland on-site, its presence cannot, therefore, be ruled out.

### 19.2. Conservation Objectives

To safeguard amphibian habitats during construction.

To provide greater opportunities for amphibians within plots A1, A2 and A8.

### 19.3. Designs and Working Methods

#### *Precautionary Working Methods*

- 19.3.1. No Great Crested Newts have been recorded within the RMA parcels and a Natural England licence is not necessary to undertake the work.
- 19.3.2. To ensure there are no potential negative effects to water quality, all operations will be undertaken in accordance with standard guidance provided in the Environmental Agency Guidelines PPG5 Pollution Prevention Guidelines. In addition, the drainage strategy will be designed to ensure that surface water run-off is suitably treated prior to discharge.
- 19.3.3. Mitigation for Common Toads will be tied with that proposed for common reptile species, mentioned in Section 18 above, whereby the clearance of any areas of suitable vegetation will be carried out in a systematic and controlled manner and, on the occasion that a Common Toad is encountered, it will be carefully placed in an appropriate lidded box and immediately removed to an area of suitable habitat away from working areas.

### *New Habitats*

- 19.3.4. Grassland habitat to be established within the application site will offer new opportunities for amphibians during their terrestrial phase. This will be complemented by the inclusion of multiple SuDS and associated wetland planting which will also increase the aquatic opportunities offered by the application site to this group.

## 19.4. **Type and Source of Material**

- 19.4.1. No specific materials are required.

## 19.5. **Initial Aftercare and Long-term Management and Maintenance**

- 19.5.1. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 20. Invertebrates

### 20.1. Baseline Conditions

- 20.1.1. Given the habitats present, it is likely an assemblage of common invertebrate species utilise the application site, although the intensive arable management of the majority of the land will limit variety. There is no evidence to suggest that any rare or notable species would currently be present.

### 20.2. Conservation Objectives

To provide greater opportunities for invertebrates within Parcel A3 and A5.

### 20.3. Designs and Working Methods

#### *New Habitat Planting*

- 20.3.1. The provision of new habitats of ecological interest including woodland, tree and hedgerow planting and wildflower grassland seeding will offer new and enhanced resources for invertebrates, with the provision of SuDS also heightening aquatic invertebrate species and introduced shrub offering nectar resource through the inclusion of flowering species.
- 20.3.2. There is scope within the proposals to include two bug hotels within each parcel associated with the newly established habitats.

### 20.4. Type and Source of Material

- 20.4.1. Example bug hotel illustrated in Appendix 7.

### 20.5. Initial Aftercare and Long-term Management and Maintenance

- 20.5.1. The initial aftercare and long-term management and maintenance of new and enhanced habitats is described in the habitats section above.

## 21. Timetable of Works

- 21.1. The timetable of works as set out in the previous sections is summarised in table 21.1 below.

**Table 21.1.** Timetable for ecological mitigation and enhancement measures.

Receptor	Action	Timing
Habitats	Habitat creation and enhancement	In concert with construction.
Badgers	Pre-construction checks of suitable habitat	Prior to commencement of works.
Bats	Bat box installation	In concert with the development.
Dormice	Dormouse nest box installation	In concert with construction.
Other mammals	Clearance of log piles and other hibernation features	Under full supervision by ECoW between October and April; certified by ECoW between May and September.
	Passive displacement (of Harvest Mice)	Under full supervision by an ECoW in concert with the reptile mitigation works.
	Hedgehog gateway installation	In concert with construction.
Birds	Nesting bird checks of vegetation to be removed	March to August inclusive, as required.
	Bird box installation	In concert with the development.
Reptiles	Passive displacement (of Grass Snakes and Common Lizards)	Under full supervision by an ECoW when reptiles are active (between mid-March and October) and during favourable weather conditions.
	Reptile hibernacula installation	In concert with the development.
Amphibians	Passive displacement (of Common Toads)	Under full supervision by an ECoW in concert with the reptile mitigation works.
Invertebrates	Invertebrate Aid installation	In concert with the development.



## **22. Persons Responsible for Implementing the Works**

- 22.1. Redrow Homes has ultimate responsibility for implementation of this strategy.
- 22.2. It is the responsibility of Redrow Homes to instruct appropriate experienced contractors to establish the various features and protective measures proposed, in addition to instructing appropriate experienced ecologists and / or landscape contractors to check the work.
- 22.3. A suitably experienced ECoW will be appointed by Redrow Homes to liaise with the site manager during construction. The ECoW will attend site at least once per month for a meeting with the site manager, and at any other times where an immediate presence is required.
- 22.4. It will be the responsibility of the site manager or his appointed representatives to deliver a site induction that includes reference to all wildlife issues identified in this document. The ECoW will liaise with the site manager on the content of the induction.
- 22.5. Clear channels between these parties and their associates on the ground will be in operation at all times, by email and telephone as appropriate.
- 22.6. Redrow and the landowner will establish a joint management company to manage and maintain the public landscape areas of Great Wilsey Park. The management company will be responsible for the ongoing maintenance of areas of soft landscaping within public open spaces, attenuation basins and Great Field Plantation.

## **23. Monitoring and Remedial Measures**

- 23.1. Site visits by the ECoW will be undertaken on a monthly basis throughout the programme of works to establish this RMA. The ecologist will meet with the site manager and discuss progress of establishment, along with any problems that may have arisen. The ECoW will also be available to attend site at short notice to discuss particular issues or observe specific works.
- 23.2. Effects on ecological receptors will be monitored and conclusions drawn as to the significance of any effects, with any measures that may need to be implemented to mitigate for any effects identified. Following completion of the work, the effects will be analysed and any significant changes will be reported.
- 23.3. A separate comprehensive Biodiversity Monitoring Strategy (BMS) for this RMA has been prepared to address the requirements of Condition 45. That document should be referred to for full details of monitoring of newly established habitats and features.

## **24. Disposal of Wastes**

- 24.1. Waste arising from the proposed works will be disposed of as per standard construction practice. A clear system of waste storage and disposal will be put in place as part of good site management. All waste arising will be stored in approved and secure locations and separated for disposal as appropriate.
- 24.2. During the operational phase of the development, the appointed management contractor will allow for the off-site disposal of all litter and landscape maintenance waste. The contractor will be responsible for all waste disposal costs and approvals.
- 24.3. There are no known non-native invasive species within the Redrow site and therefore disposal of material of at an approved facility is not required.

## 25. Conclusion

- 25.1. Ecology Solutions was commissioned by Redrow Homes in March 2023 to prepare materials to address the requirements of planning conditions for the development of Parcels A3 and A5 at Great Wilsey Park (Planning Application Reference: DC/15/2151/OUT).
- 25.2. Condition 42 requires that an EIS be submitted and approved prior to commencement of development. The condition states:

**No development shall take place on any phase or reserved matters application (including demolition, archaeological investigation, ground works and vegetation clearance) until an ecological implementation strategy for that particular phase or reserved matters application addressing the mitigation measures set out in Volume 2 Section 9 of the Environmental Statement dated September 2015, relevant appendices and subsequent Addendum document May 2016 has been submitted to and approved in writing by the local planning authority. The implementation strategy shall include the following:**

- a) ES mitigation measures to be addressed.
- b) Purpose and conservation objectives for the proposed works.
- c) Review of site potential and constraints informed by up to date survey.
- d) Detailed design(s) and / or working method(s) to achieve stated objectives.
- e) Extent and location / area of proposed works on appropriate scale maps and plans.
- f) Type and source of materials to be used where appropriate, e.g. native species of local provenance.
- g) Timetable for implementation demonstrating that works are aligned with the proposed phasing of development.
- h) Persons responsible for implementing the works.
- i) Details of initial aftercare and long-term maintenance.
- j) Requirement for monitoring and remedial measures.
- k) Details for disposal of any wastes arising from works.

**The implementation strategy shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter.**

**Reason: To ensure the satisfactory development of the site at the appropriate time to protect vulnerable ecological habitats and ensure the satisfactory development of the site.**

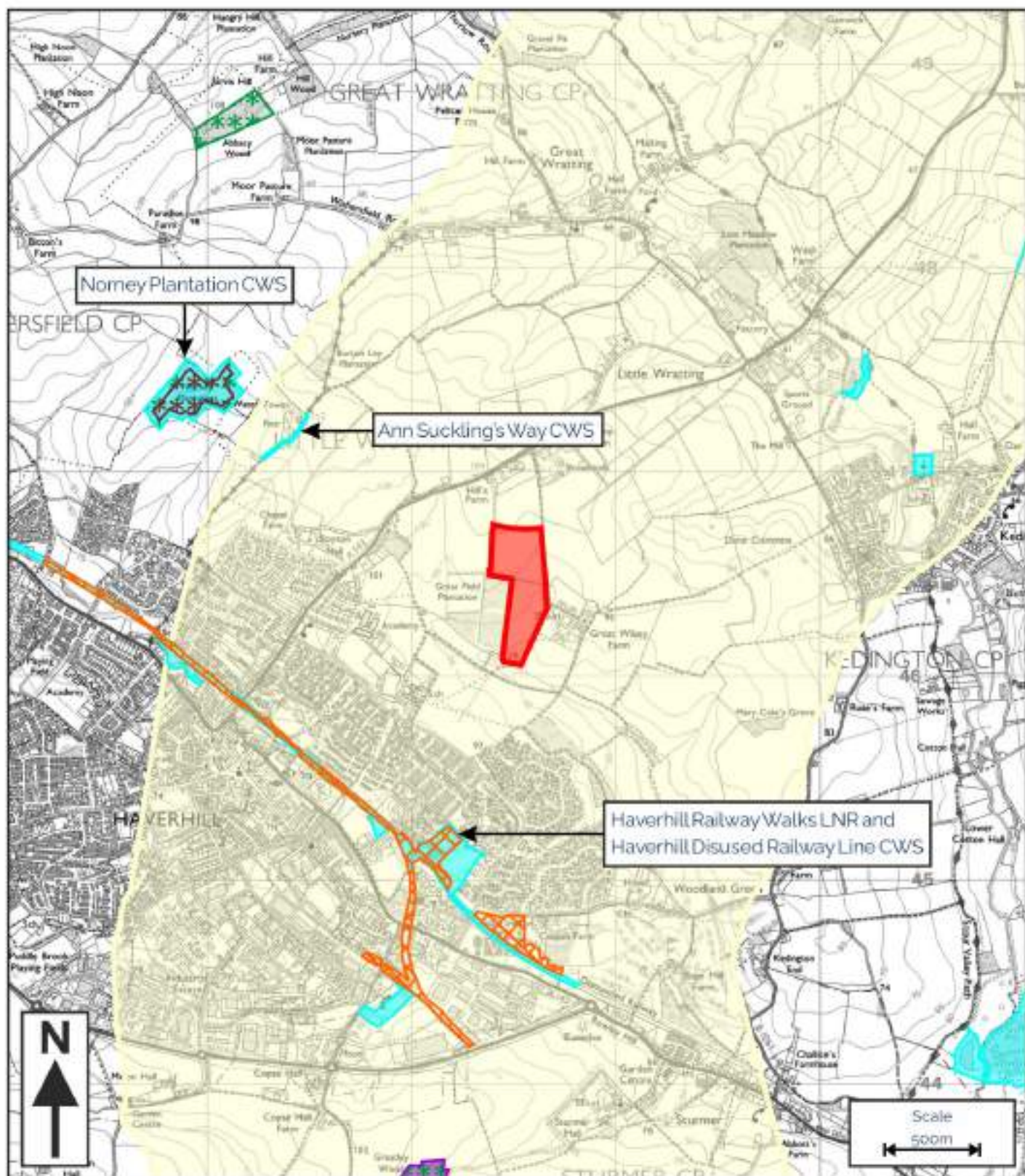
- 25.3. New and retained habitats will be protected, created and managed with wildlife in mind. Once these habitats establish and mature, opportunities for wildlife within the site will be enhanced. Hence the ecological value of the site will gradually improve over time. Specific provisions, such as the installation of bat and bird boxes, will provide further enhancements for these groups within the site.
- 25.4. Overall, it is considered that, by following the measures outlined within this report, the proposed development will secure in protecting and enhancing opportunities for wildlife post-development.

## Plans

## **PLAN ECO1**

Site Location and Ecological Designations





# KEY:

- SITE LOCATION
- LOCAL NATURE RESERVES (LNRs)
- COUNTY WILDLIFE SITES (CWSs)
- LOCAL WILDLIFE SITE (LWS)
- BUGLIFE B-LINES
- ANCIENT & SEMI-NATURAL WOODLAND
- ANCIENT REPLANTED WOODLAND



Coleman Estate  
Berkway | Royston  
Hertfordshire | SG8 8DL  
info@ecology-solutions.co.uk  
www.ecology-solutions.co.uk

11409: PARCELS A3 AND A5  
GREAT WILSEY PARK, HAVERHILL

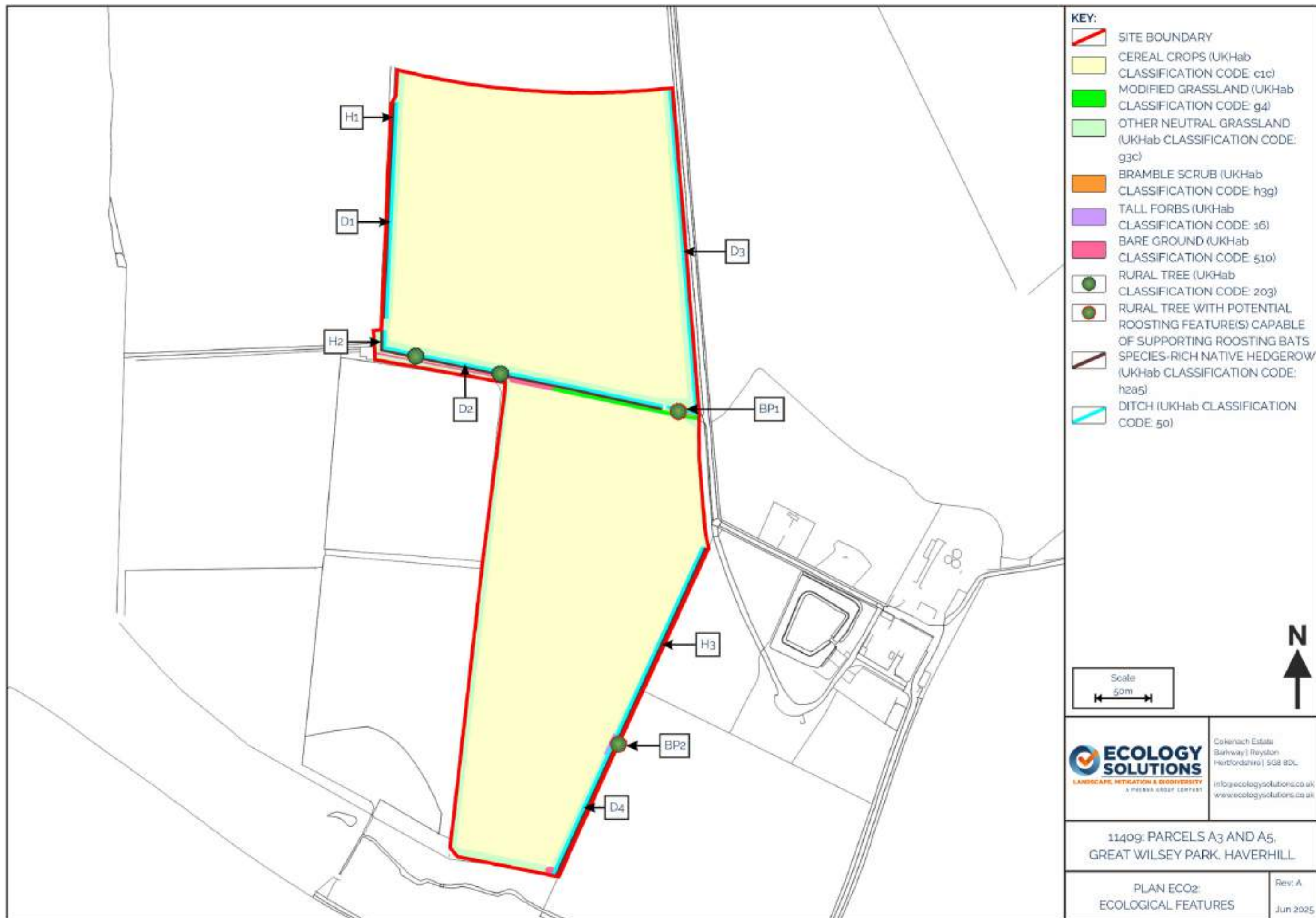
PLAN ECO1: SITE LOCATION AND  
ECOLOGICAL DESIGNATIONS

Rev: A  
Jun 2025

## **PLAN ECO<sub>2</sub>**

Ecological Features

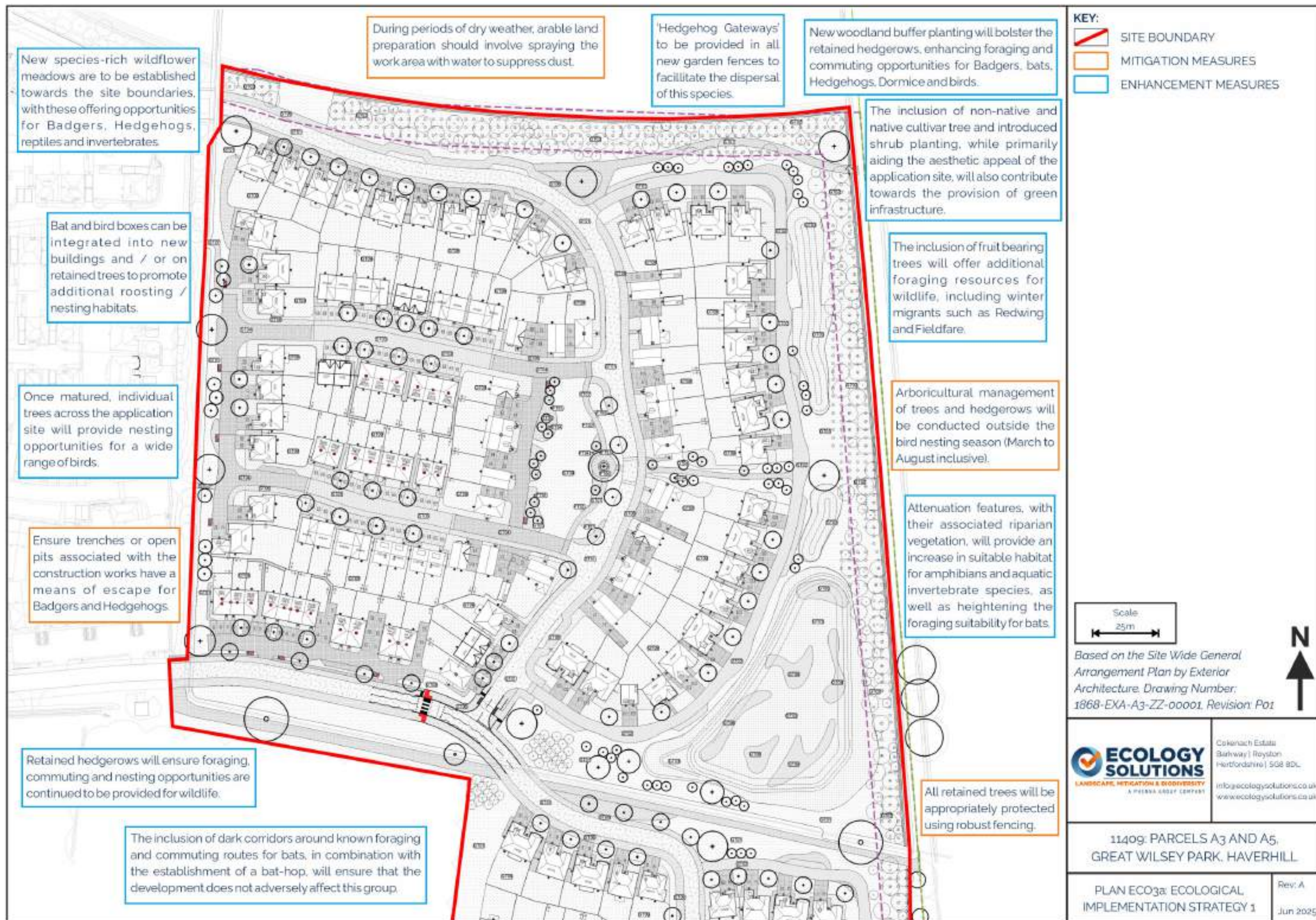




## **PLAN ECO3a**

### Ecological Implementation Strategy 1







## **PLAN ECO<sub>3b</sub>**

### Ecological Implementation Strategy 2

Bat and bird boxes can be integrated into new buildings and / or on retained trees to promote additional roosting / nesting habitats.

During periods of dry weather, arable land preparation should involve spraying the work area with water to suppress dust.

Ensure trenches or open pits associated with the construction works have a means of escape for Badgers and Hedgehogs.

30m consultation zones will be established around the off-site Badger setts.

New species-rich wildflower meadows are to be established towards the application site boundaries, with these offering opportunities for Badgers, Hedgehogs, Harvest Mice, reptiles and invertebrates.

'Hedgehog Gateways' to be provided in all new garden fences to facilitate the dispersal of this species.

New woodland buffer planting will bolster the retained hedgerows, enhancing foraging and commuting opportunities for Badgers, bats, Hedgehogs, Dormice and birds.

The inclusion of fruit bearing trees will offer additional foraging resources for wildlife, including winter migrants such as Redwing and Fieldfare.

New planting will increase the connectivity for faunal groups between Great Field Plantation and the retained and off-site vegetation towards the east of the site.

Once matured, tree planting across the application site will provide nesting opportunities for a wide range of bird species.

Arboricultural management of trees and hedgerows will be conducted outside the bird nesting season (March to August inclusive).

All retained trees will be appropriately protected using robust fencing.

Sustainable drainage features, alongside their associated wetland habitats, will elevate invertebrate populations, subsequently heightening food resources for bats. Additionally, they will provide new areas of suitable habitat for amphibian species, such as the Common Toad.

**KEY:**  
 SITE BOUNDARY  
 MITIGATION MEASURES  
 ENHANCEMENT MEASURES

Scale  
25m

Based on the Site Wide General Arrangement Plan by Exterior Architecture. Drawing Number: 1868-EXA-A3-ZZ-00001. Revision: P01

**ECOLOGY SOLUTIONS**  
 LANDSCAPE, MITIGATION & BIODIVERSITY  
 A PERKINS LLOYD COMPANY

Cokerach Estate  
 Barkway | Royston  
 Hertfordshire | SG8 8DL  
[info@ecology-solutions.co.uk](mailto:info@ecology-solutions.co.uk)  
[www.ecology-solutions.co.uk](http://www.ecology-solutions.co.uk)

11409: PARCELS A3 AND A5,  
 GREAT WILSEY PARK, HAVERHILL

PLAN ECO3b: ECOLOGICAL  
 IMPLEMENTATION STRATEGY 2

Rev: A  
 Jun 2025



## Confidential Plans

## **PLAN ECOCON<sub>1</sub>**

Ecological Constraints



## Appendices



## **APPENDIX 1**

Site Wide General Arrangement Plan by Exterior  
Architecture (Drawing Number: 1868-EXA-A3-ZZ-  
00001, Revision: P01)

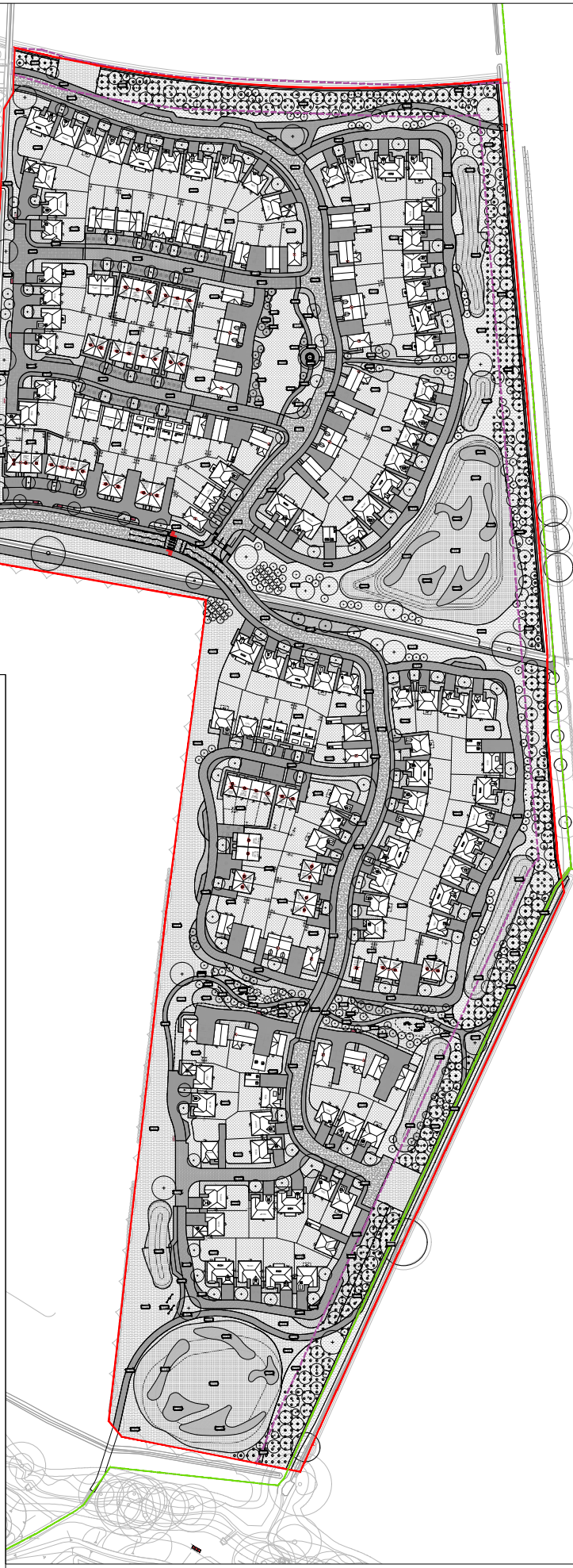
PARCEL A2

- LEGEND
- HOUSING RESERVED MATTERS APPLICATION BOUNDARY
  - ROUTE OF EXISTING PUBLIC RIGHT OF WAY
  - 15M STRUCTURAL TREE BUFFER

- SURFACE TYPES
- ST1 - SURFACE TYPE 01 PRIMARY STREETS MACADAM
  - ST2 - SURFACE TYPE 02 LANE STREET MACADAM WITH WHITE CHIPPING
  - ST3 - SURFACE TYPE 03 SHARED SURFACE BLOCK PAVING - HERRINGBONE
  - ST4 - SURFACE TYPE 04 SHARED SURFACE BLOCK PAVING - HERRINGBONE
  - ST5 - SURFACE TYPE 05 PRIVATE DRIVES ASPHALT
  - ST6 - SURFACE TYPE 06 PEDESTRIAN FOOTPATHS ASPHALT
  - ST7 - SURFACE TYPE 07 LANDSCAPE PATHS SELF-BINDING GRAVEL
  - ST8 - SURFACE TYPE 08 ACCESS PATHS FLAG PAVING

- SIGNATURE TYPES
- FT1 - FURNITURE TYPE 1 TIMBER BOLLARD
  - FT2 - FURNITURE TYPE 2 BENCH WITH BACKREST
  - FT3 - FURNITURE TYPE 3 LOCKABLE LITTER BIN
  - FT4 - FURNITURE TYPE 4 INSECT HOTEL
  - FT5 - FURNITURE TYPE 5 POST MOUNTED BIRD BOX
  - FT6 - PLAY TYPE 6 RING BENCH
  - FT7 - PLAY TYPE 7 PICNIC TABLE

- PLAY TYPE
- PT1 - PLAY TYPE 1 CAUSEWAY POLES SUPPLIER: PLAYQUIP PRODUCT: TT 13 SIZE: 3750(L) x 400(W) x 2050(H)
  - PT2 - PLAY TYPE 2 PLAYGROUND STUMPS SUPPLIER: PLAYQUIP PRODUCT: S 04 SIZE: 270(L) x 270(W) x 300(H)
  - PT3 - PLAY TYPE 3 BOLLARDS
  - PT4 - PLAY TYPE 4 FALLEN LOG
  - PT5 - PLAY TYPE 5 BALANCE BEAM TRIAL SUPPLIER: PLAYQUIP PRODUCT: B 11 SIZE: 5700(L) x 700(W) x 500(H)
  - PT6 - PLAY TYPE 6 BALANCE BEAM SUPPLIER: PLAYQUIP PRODUCT: B 01 SIZE: 5000(L) x 900(W) x 950(H)
- SOFT LANDSCAPE
- EXISTING HEDGE TO BE RETAINED
  - HEDGE PLANTING REFER TO PLANTING SCHEDULE FOR SPECIFICATION
  - EXISTING TREES TO BE RETAINED
  - PROPOSED TREES
- GARDEN TYPE
- GT1 - GARDEN TYPE 01 WILD FLOWER MEADOW MIX
  - GT2 - GARDEN TYPE 02 WOODLAND FRINGE MIX
  - GT3 - GARDEN TYPE 03 RAILE GRASS MIX
  - GT4 - GARDEN TYPE 04 AMENITY WOODLAND PLANT MIX
  - GT5 - GARDEN TYPE 05 AMENITY VILLAGE GREEN
  - GT6 - GARDEN TYPE 06 SUBS PLANT MIX
  - GT7 - GARDEN TYPE 07 ROAD BUFFER PLANT MIX
  - GT8 - GARDEN TYPE 08 ORNAMENTAL PLANT MIX
  - GT9 - GARDEN TYPE 09 AMENITY GRASS / LAWN



EXTERIOR  
ARCHITECTURE

LONDON  
Unit 17/1, The Leather Market, 11-13 Weston Street, London, SE1 3ER  
MANCHESTER  
Studio 537, The Royal Exchange, St Ann's Square, Manchester, M2 7DH  
E-MAIL: office@exteriorarchitecture.com  
WEB: www.exteriorarchitecture.com

Client  
REDROW HOMES  
EASTERN

No dimensions are to be scaled from this drawing.  
All dimensions are to be checked on site.  
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.  
No part of the drawing may be reproduced in any manner  
without permission from Exterior Architecture Ltd.

---  
---  
---  
---  
---  
---  
---  
---  
P01 PLANNING SUBMISSION  
Rev Description 20.05.2025  
Date

Project title  
GREAT WILSEY PARK - HOUSING  
PARCEL A3 & A5

Drawing title  
SITE WIDE GENERAL ARRANGEMENT  
PLAN

Issued By London  
Scale 1:1,000 @ A1  
Status PLANNING  
Date 07.08.2024

Drawing number  
1868-EXA-A3-ZZ-00001

T: 020 7978 2101  
Drawn ExA  
Checked TOD  
Approved LP

Revision  
P01

## **APPENDIX 2**

Planting Schedule by Exterior Architecture (Drawing  
Number: 1868-EXA-ZZ-ZZ-SH-L-20000, Revision:  
P01)

P:\LONDON PROJECTS\2018\1888\_GWP\_RMA A3 A501 BIM02 CAD03 SHEET LA YOUT 01 RIBA\_1-3 PLANNING\G1888-EXA-ZZ-SH-L-2000\0 PLANTING SCHEDULE.DWG

GREAT WESLEY PARK - HOUSING PARCEL A3 & A5 PLANTING SCHEDULE

TREES						
Number	Species	Common Name	Girth	Height	Specification	
17 -	Acer campestre	Common Maple	8-10cm	250-300cm	Standard: 4 brks: C: Clear Stem 175-200cm	
2 -	Acer campestre	Common Maple	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem min. 200cm	
26 -	Acer campestre 'Streetwise'	Field Maple 'Streetwise'	8-10cm	250-300cm	Standard: 3 brks: C: Clear Stem 175-200cm	
3 -	Acer rubrum	Red Maple	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem min. 200cm	
25 -	Alnus glutinosa 'Laciniata'	Cut-leaf Alder	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem min. 200cm	
26 -	Betula pendula	Common Silver Birch	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm	
27 -	Betula pendula	Common Silver Birch	8-10cm	250-300cm	Standard: 3 brks: C: Clear Stem 175-200cm	
33 -	Carpinus betulus	Common Hornbeam	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm	
4 -	Cedrus atlantica	Atlas Cedar		175-200cm	Leader with Laterals: C	
2 -	Chamaecyparis lawsoniana 'Golden Wonder'	Lawson Cypress 'Golden Wonder'		100-125cm	Single Leader: Feathered to base: 3x: RB	
2 -	Cryptomeria japonica	Japanese Red Cedar		100-125cm	Leader with Laterals: 4x: RB	
1 -	Liquidambar styraciflua	Sweet Gum		10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm
7 -	Malus domestica 'Discovery'	Apple 'Discovery'		10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm
33 -	Malus sylvestris	Common Crab Apple	8-10cm	250-300cm	Standard: 4 brks: 2x: B: Clear Stem 175-200cm	
7 -	Malus sylvestris	Common Crab Apple	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm	
1 -	Quercus robur	Common Oak	12-14cm	350-425cm	Heavy Standard: 5 brks: C: Clear Stem 175-200cm	
20 -	Sorbus aria 'Majestica'	Whitebeam 'Majestica'	8-10cm	250-300cm	Standard: 3 brks: C: Clear Stem 175-200cm	
28 -	Sorbus aucuparia	Rowan	8-10cm	250-300cm	Standard: 3 brks: C: Clear Stem 175-200cm	
26 -	Tilia cordata 'Streetwise'	Small-leaved Lime 'Streetwise'	10-12cm	300-350cm	Selected Standard: 4 brks: C: Clear Stem 175-200cm	

HEDGES						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
53 -	Ac	Acer campestre	Common Maple	100-125cm	1/m	1+1: Transplant - seed raised: B
53 -	Csa	Cornus sanguinea	Common Dogwood	60-80cm	1/m	1+1: Transplant - seed raised: Branched: 3 brks: B
53 -	Cav	Corylus avellana	Common Hazel	100-125cm	1/m	Branched: 5 brks: RB
41 -	Cf	Colneaster franchetii	Orange Colneaster	3L	60-80cm	4/m
53 -	Cmo	Crataegus monogyna	Common Hawthorn	100-125cm	1/m	1+2: Transplant - seed raised: B
53 -	Eeu	Euonymus europaeus	Common Spindle Tree	60-80cm	1/m	1+2: Transplant - seed raised: Branched: 5 brks: B
53 -	Lv	Ligustrum vulgare	Common Privet	80-100cm	1/m	0/2: Cutting: Branched: 3 brks: B
53 -	Msy	Malus sylvestris	Common Crab Apple	100-125cm	1/m	1+2: Transplant - seed raised: B
53 -	Pav	Prunus avium	Wild Cherry	100-125cm	1/m	Feathered: 2x: B
53 -	Rca	Rosa canina	Dog Rose	60-80cm	1/m	1+1: Transplant - seed raised: Branched: 3 brks: B
53 -	Sn	Sambucus nigra	Common Elder	80-100cm	1/m	1+1: Transplant - seed raised: Branched: 3 brks: B
54 -	Vo	Viburnum opulus	Guelder Rose	100-125cm	1/m	1+2: Transplant - seed raised: Branched: 3 brks: B

VILLAGE GREEN MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
51 -	Ah	Anemone hepheensis	Japanese Anemone	3L		Full Pot: C
51 -	Gn	Galanthus nivalis	Common Snowdrop			Grade 7/8
51 -	GsAl	Geranium sanguineum 'Album'	White Bloody Cranesbill	0.5L		Full Pot: C
51 -	La	Leucanthemella serotina	Autumn Ox-eye	2L		Full Pot: C
51 -	Lni	Luzula nivea	Snowy Wood-rush			Full Pot: C
51 -	NMH	Narcissus 'Mount Hood'	Daffodil 'Mount Hood'			Grade 12/14
51 -	Pbist	Persicaria bistorta	Common Bistort	1L		Full Pot: Sept to April planting, British Native-origin: C
51 -	VmAl	Vinca minor 'Argenteovariegata'	Lesser Periwinkle 'Argenteovariegata'	1L		Several Shoots: 2 brks: C

A3-SW ORNAMENTAL MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
261 -	Bsp	Blechnum spicant	Hard Fern	0.5L		Full Pot: C
261 -	CmD	Carex morrowii 'Ice Dance'	Japanese Sedge 'Ice Dance'	0.5L		Full Pot: C
261 -	Dp	Digitalis purpurea	Foxglove	0.5L		Full Pot: C
261 -	Ear	Euphorbia amygdaloides robbiae	Mrs Robb's Bonnet	0.5L		Full Pot: C
261 -	GsAl	Geranium sanguineum 'Album'	White Bloody Cranesbill	0.5L		Full Pot: C
261 -	Hn	Helleborus niger	Christmas Rose	0.5L		Full Pot: British origin: C
261 -	VmAl	Vinca minor 'Alba'	White Lesser Periwinkle	0.5L		Several Shoots: 2 brks: C

A3-SW ORNAMENTAL MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
184 -	AME	Allium 'Mount Everest'	Ornamental Onion 'Mount Everest'	1L		Grade 18/20
184 -	AIPS	Allium 'Purple Sensation'	Ornamental Onion 'Purple Sensation'	1L		Full Pot: C
184 -	Gor	Geranium 'Orion'	Cranesbill 'Orion'	1L		Full Pot: C
184 -	Lan	Lavandula angustifolia	True Lavender	1.5L	10-15cm	Bushy: 5 brks: C
184 -	Sn	Sesleria nitida	Nest Moor Grass	5-7.5L		Full Pot: C
184 -	Sb	Stachys byzantina	Lamb's Ears	0.5L		Full Pot: C
183 -	VmAl	Vinca minor 'Alba'	White Lesser Periwinkle	0.5L		Several Shoots: 2 brks: C

A5-NE ORNAMENTAL MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
184 -	AME	Allium 'Mount Everest'	Ornamental Onion 'Mount Everest'	1L		Grade 18/20
184 -	AIPS	Allium 'Purple Sensation'	Ornamental Onion 'Purple Sensation'	1L		Full Pot: C
184 -	Gor	Geranium 'Orion'	Cranesbill 'Orion'	1L		Full Pot: C
184 -	Lan	Lavandula angustifolia	True Lavender	1.5L	10-15cm	Bushy: 5 brks: C
184 -	Sn	Sesleria nitida	Nest Moor Grass	5-7.5L		Full Pot: C
184 -	Sb	Stachys byzantina	Lamb's Ears	0.5L		Full Pot: C
183 -	VmAl	Vinca minor 'Alba'	White Lesser Periwinkle	0.5L		Several Shoots: 2 brks: C

A5-SW ORNAMENTAL MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
184 -	AME	Allium 'Mount Everest'	Ornamental Onion 'Mount Everest'	1L		Grade 18/20
184 -	AIPS	Allium 'Purple Sensation'	Ornamental Onion 'Purple Sensation'	1L		Full Pot: C
184 -	Gor	Geranium 'Orion'	Cranesbill 'Orion'	1L		Full Pot: C
184 -	Lan	Lavandula angustifolia	True Lavender	1.5L	10-15cm	Bushy: 5 brks: C
184 -	Sn	Sesleria nitida	Nest Moor Grass	5-7.5L		Full Pot: C
184 -	Sb	Stachys byzantina	Lamb's Ears	0.5L		Full Pot: C
183 -	VmAl	Vinca minor 'Alba'	White Lesser Periwinkle	0.5L		Several Shoots: 2 brks: C

SUDS MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
203 -	Cpal	Callitha palustris	Marsh Marigold	1L		Full Pot: Sept to April planting, British Native-origin: C
203 -	Cacu	Carex acutiformis	Lesser Pond Sedge	0.5L		Full Pot: Sept to April planting, British Native-origin: C
203 -	Elpal	Eleocharis palustris	Common Spike Rush	0.5L		Full Pot: June to September planting, British Native-origin: C
203 -	Gri	Geum rivale	Water Avenis	1L		Full Pot: Sept to April planting, British Native-origin: C
203 -	Jni	Juncus pseudocorus	Yellow Flag Iris	1L		Full Pot: C
203 -	Lsal	Lythrum salicaria	Purple Loosestrife	1L		Full Pot: Sept to April planting, British Native-origin: C
203 -	Maq	Mentha aquatica	Water Mint	1L		Full Pot: Sept to April planting, British Native-origin: C
203 -	Par	Phalaris arundinacea	Reed Canary Grass	0.5L		Full Pot: Sept to April planting, British Native-origin: C

ROAD BUFFER MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
150 -	Hn	Helleborus niger	Christmas Rose	0.5L		Full Pot: British origin: C
150 -	lc	Ilex crenata	Box-leaved Holly		60-80cm	Transplant - seed raised: Branched: 3 brks: B
150 -	Oxf	Osmantbus x fortunei	Fortune's Osmantbus		200-250cm	Umbrella: 5 brks: 3x: C: Clear Stem min. 100cm
150 -	Pt	Pachysandra terminalis	Japanese Spurge	2L		Several Shoots: 7 brks: C
150 -	Scp	Sarcococca confusa	a Sweet Box	2L	20-30cm	Bushy: 4 brks: C
150 -	Tb	Taxus baccata	Common Yew		60-80cm	Leaders: Feathered to base: 3x: RB
150 -	Uj	Ulex europaeus	Common Gorse	1.5L	15-20cm	Bushy: 2 brks: C

WOODLAND MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
159 -	Bm	Brunnera macrophylla	Siberian Bugloss	0.5L		Full Pot: C
159 -	Hn	Helleborus niger	Christmas Rose	0.5L		Full Pot: British origin: C
159 -	lc	Ilex crenata	Box-leaved Holly		60-80cm	Transplant - seed raised: Branched: 3 brks: B
159 -	Pt	Pachysandra terminalis	Japanese Spurge	2L		Several Shoots: 7 brks: C
159 -	Scp	Sarcococca confusa	a Sweet Box	2L	20-30cm	Bushy: 4 brks: C
159 -	Tb	Taxus baccata	Common Yew		60-80cm	Leaders: Feathered to base: 3x: RB
159 -	VmAl	Vinca minor 'Alba'	White Lesser Periwinkle	0.5L		Several Shoots: 2 brks: C

WHIP MIX						
Number	Abbreviation	Species	Common Name	Pot Size	Height	Density
109 -	B u l	Betula utilis jacquemontii	White-barked Himalayan Birch		60-80cm	3Ctr 1+1: Transplant: Seed Raised: B
22 -	C mon	Crataegus monogyna	Common Hawthorn		200-250cm	3Ctr Standard: 3 brks: 2x: RB: 175-200cm
65 -	M E	Malus 'Evereste'	Crab Apple 'Evereste'		80-100cm	3Ctr 1+1: Feathered: B
56 -	Msy	Malus sylvestris	Common Crab Apple		40-60cm	3Ctr 1+1: Transplant: Seed Raised: B
143 -	Psyl	Pinus sylvestris	Scots Pine		40-60cm	3Ctr 1+2: Transplant: Seed Raised: B
22 -	Psyl	Pinus sylvestris	Scots Pine		200-250cm	3Ctr Leader with Laterals: Feathered to base: 4x: RB
116 -	Pr	Populus tremula	Aspen		60-80cm	3Ctr 1+2: Transplant - seed raised: B
74 -	Pav	Prunus avium	Wild Cherry		60-80cm	3Ctr 1+1: Transplant: Seed Raised: B
65 -	Ope	Quercus petraea	Sessile Oak		60-80cm	3Ctr 1+1: Transplant: Seed Raised: B
116 -	Sau	Sorbus aucuparia	Rowan		60-80cm	3Ctr 1+1: Transplant: Seed Raised: B
109 -	Teu	Tilia x europaea	Common Lime		60-70cm	3Ctr 1+0: Seed Raised: B
22 -	Teu	Tilia x europaea	Common Lime		175-200cm	3Ctr Standard: 3 brks: 2x: RB

GRASS AREAS			
Description	Seed Mix Name	Seed Mix Supplier	Area
A GRASS MIX	EL1 Flowering Lawn Mixture	Emorsgate Seeds	4484m²
MEADOW MIX	EM2F Standard General Purpose Wild Flowers	Emorsgate Seeds	10669m²
FINE LAWN MIX	EL1F Wild Flowers for Lawns	Emorsgate Seeds	23810m²
SUDS MEADOW MIX	RE3 Water Meadow	Germinal Amenity	9196m²
WOODLAND MIX	EW1 Woodland Mixture	Emorsgate Seeds	14981m²

No dimensions are to be scaled from this drawing.  
All dimensions are to be checked on site.  
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.  
No part of the drawing may be reproduced in any manner  
without permission from Exterior Architecture Ltd.

Client  
REDROW HOMES EASTERN

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----

P01 PLANNING SUBMISSION 20.05.2025  
Rev Description Date



LONDON  
Unit 17.2, The Leather Market, 11-13 Weston Street, London, SE1 3ER  
MANCHESTER  
Studio 537, The Royal Exchange, St Ann's Square, Manchester, M2 7DH  
E-MAIL office@exteriorarchitecture.com  
WEB www.exteriorarchitecture.com

Project title  
GREAT WILSEY PARK - HOUSING  
PARCEL A3 & A5

Drawing title  
PLANTING SCHEDULE

Issued By London T: 020 7978 2101  
Scale 1:200 @ A1 Drawn EJA  
Status PLANNING Checked TOD  
Date 20.05.2025 Approved LP

Drawing number  
1868-EXA-ZZ-ZZ-SH-L-20000  
Revision  
P01



## **APPENDIX 3**

### Bat Boxes



# Bat Boxes

## Bat Access Tile from Habitat

The Habitat bat access tile is a roof tile that has been designed to allow bats either under the roof felt or under the roof void, while ensuring any rainwater ingress into the roof is prevented. These tiles are available in clay, slate and lead and will integrate seamlessly into a roof.



## 1FR Bat Box from Schwegler

Schwegler bat boxes are made from 'Woodcrete', a 75% wood sawdust, clay and concrete mixture that is durable while allowing natural respiration and temperature stability. This bat tube can be installed on external walls, either flush or beneath a rendered surface. If required, it can be painted using air-permeable exterior paint. This box is easy to install in most walls, has internal partitions, requires no maintenance or cleaning and will last for decades.

Dimensions:

Height: 475mm

Width: 200mm

Depth: 125mm

Weight: 10kg



## **APPENDIX 4**

### Hedgehog Gateways

# Hedgehog Gateways

Hedgehog gateways comprise a 130mm x 130mm cut out into the base of a fence panel to create links between residential gardens and the surrounding landscape.

This will facilitate the dispersal of Hedgehogs and other small animals, enhancing the permeability of the new development for wildlife.

Signposting the features seeks to inform residents and aid the features retention and function.





## **APPENDIX 5**

### Bird Boxes

# Bird Boxes

## Swift Nest Box from Habitat

Designed to be incorporated into the wall of a building, this Swift nest box may be customised to match the surrounding brickwork or, alternatively, may be faced with other hard materials, such as stone, wood, or a rendered finish. It is made from insulating concrete, provides an internal roost space and the access hole is specifically designed to accommodate Swifts.

Dimensions:

Height: 170mm

Width: 290mm

Depth: 120mm

Weight: 3kg



## Sparrow Terrace from Habitat

Designed to be incorporated into the wall of a building, this Sparrow terrace is made from insulating concrete and provides three separate internal nest spaces to accommodate the gregarious nature of House Sparrows. These boxes are available in a range of facing options to allow for seamless integration into a building.

Dimensions:

Height: 215mm

Width: 440mm

Depth: 150mm

Weight: 5.7kg

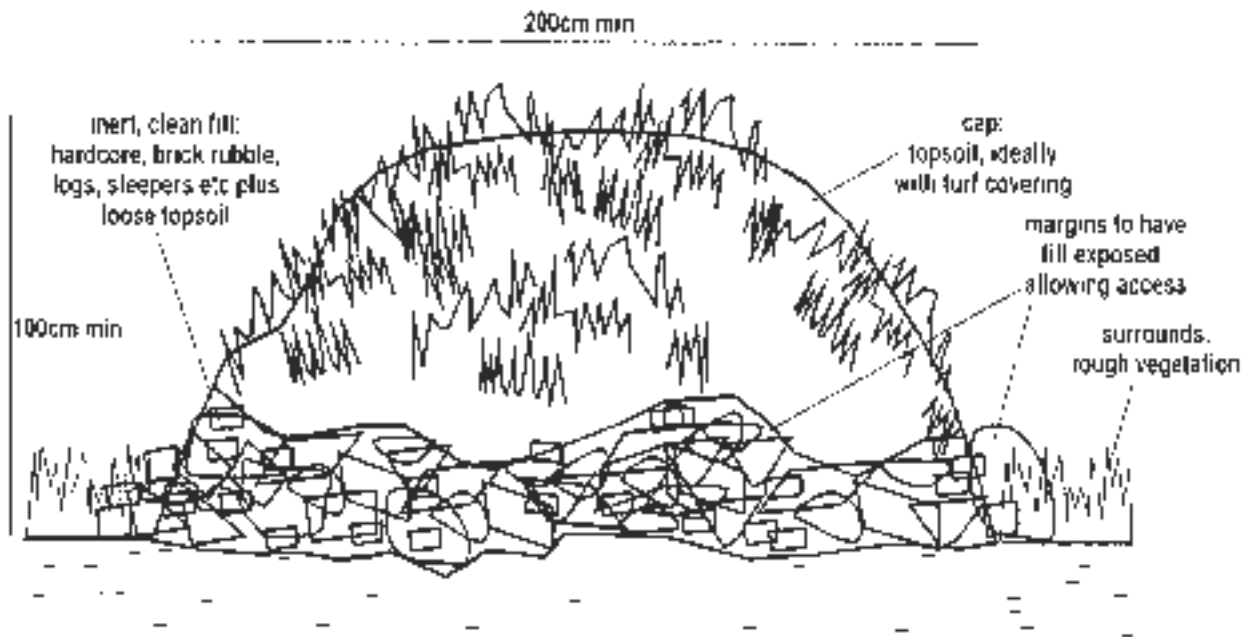


## **APPENDIX 6**

### Reptile Hibernacula

# Reptile Hibernacula

A good reptile hibernacula comprises a mixture of rubble, wood and soil and is situated within a vegetated area of the site. This will provide winter and summer refuge for reptiles, offering cover for them to disappear into if disturbed and the option to move into the sun or shade at any part of the day. If the hibernacula is positioned on dry soil there should be a dug chamber of at least 50cm depth to provide subterranean shelter. On wetter soil, materials can be arranged on the surface.



## **APPENDIX 7**

### Invertebrate Aids

# Invertebrate Aids

## Bug Hotel

A bug hotel is a manmade structure that provides nesting sites for solitary bees and wasps and hibernacula for ladybirds, woodlice and butterflies. It will be constructed using a variety of natural materials, including logs, bark and bamboo sticks, to provide as many sheltering opportunities as possible.





[info@ecologysolutions.co.uk](mailto:info@ecologysolutions.co.uk) | [www.ecologysolutions.co.uk](http://www.ecologysolutions.co.uk)

Farncombe House | Farncombe | Broadway | Worcestershire | WR12 7LJ

Cokenach Estate | Barkway | Royston | Hertfordshire | SG8 8DL



