Biodiversity Permeability and Enhancement Plan

Care Home Scheme, Crowthorne, Berkshire

Barchester Propco 2019 Limited

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	25 September 2025	Kevin McGee	Dale Broadbent	Russell Goodchild
02	2 December 2025	Dean Cordelle	Mark Nelson	Mark Nelson

Basis of Report

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1.0 Introduction

SLR Consulting Limited (SLR) was commissioned by Barchester Propco 2019 Ltd to prepare a Biodiversity Permeability and Enhancement Plan (BPEP) to support the proposed care home development of land at Oak Dale, Lower Wokingham Road, Crowthorne, Ordnance Survey National Grid Reference: SU 81793 64408 – hereafter referred to as the 'Site').

Planning permission has been granted for the development by Wokingham Borough Council (Ref APP/X0360/W/23/3336000). The permission includes conditions, including Condition 6 which states the following:

"No development shall commence above foundation level until a plan for the provision of ecological permeability and species enhancements on the site is submitted and approved in writing by the Local Authority. The plan shall be implemented in accordance with the approved details during the construction phase of the development and the mitigation measures of the approved plans shall be retained thereafter."

1.1 Background

Lizard Landscape Design & Ecology completed a Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment at the Site in 2021. Further phase 2 bat emergence / re-entry surveys were subsequently undertaken, and an Ecological Impact Assessment (EcIA) was then completed (Lizard Landscape Design & Ecology, 2021). The EcIA has been consulted to provide supporting information for this report.

1.2 Site Description

The Site is a 0.9ha residential plot located on the western side of the A321, Lower Wokingham Road, containing a residential building known as Oak Dale, surrounded by amenity grassland, scattered trees / tree lines, and mixed plantation woodland to the west and south. Immediate surroundings are suburban, consisting of large, detached residences surrounded by wooded areas. The wider landscape to the west and east tends to comprise of less populated areas that include significant areas of natural habitat, mainly consisting of mixed mature broad-leaved / coniferous woodland and heathland. To the east there is a golf course before becoming part of the built-up town of Crowthorne. Towards the north and south the area is rural in nature consisting of arable land interspersed with wooded patches and large lakes.

1.3 Details of the Proposed Development

The development proposals include the demolition of all buildings within the Site, and the construction of an assisted living / extra care residential facility. The facility will be accompanied by new parking, with the Site subject to some landscaping and retention of the existing access.

1.4 Purpose of this Report

This BPEP will serve as a reference document to discharge Condition 6 of the planning permission. It will run for the 30-year schedule of objectives to protect the identified ecological receptors. It references the EcIA to ensure that the mitigation and enhancement measures outlined are properly implemented.

Monitoring of all habitats will be undertaken every year in the first five years, reduced to once every five years, for the remaining 25 years of the project. Adaptive management will be employed to adjust strategies based on the ongoing monitoring results and new ecological data. These adjustments will be reviewed and updated every five years to ensure the plan remains effective and responsive to changing Site conditions.

This document will take into consideration Biodiversity Action Plans and planning objectives within both a UK and local area context.

1.5 Evidence of Technical Competence and Experience

This BPEP has been written by SLR Senior Field Ecologist Kevin McGee MSc. The report has been subject to Quality Assurance review by SLR Associate Ecologists Dale Broadbent BSc (Hons), PGDIP, MCIEEM and Russell Goodchild BSc, MCIEEM. Dale has over 16 years' experience as a consultant ecologist and Russell over 15 years.

A final review was undertaken by SLR Associate Ecologist Dean Cordelle BSc(Hons) ACIEEM. Dean has over nine years' experience as a professional consultant.

2.0 Proposed Wildlife Enhancements On-Site

2.1 Ecological Permeability

All fencing, where necessary[1], proposed to be installed will be fitted with 10cm-by-10cm gaps to create hedgehog *Erinaceus europaeus* 'highways' to facilitate their movement across the Site and create connected habitat for this species.

Additionally, the perimeter fencing for the proposed development will include gaps large enough to facilitate the movement of badgers *Meles meles* through the exterior areas of the Site. The gaps will need to be at least 25cm in width and 17cm in height and will be created once construction is complete.

2.2 Ecologically Beneficial Planting

The EcIA (Lizard Landscape Design & Ecology, 2021) describes that the design of the proposed development will include ecological enhancements for the benefit of wildlife in line with the National Planning Policy Framework and Local Planning Policy.

Areas of wildlife friendly landscaping are to be included across the Site. The landscaping design aims to provide a beneficial environment and outside space for both the residences and local wildlife with biodiversity enhanced planting. The existing landscape plan[2] is appropriate for the Site with regards to planting for ecological benefit. A mix of non-native ornamental and native wildlife friendly planting is included within the plan. This includes a selection of tree planting, wildflower-rich grassland, and ornamental planting.

All landscaping works will be undertaken by the appointed landscaping team, following the landscape design plan and this document.

2.2.1 Wildflower Grasslands

Two areas of existing lawns and a third new lawn will be enriched through plug-planting of wildflowers. A species mixture such as those provided in the Wildflower Plug-Plant Mix for Flowering Lawns by Meadowmania[3] (or similar), will be planted, please see Appendix A.

The following flowering species will be planted: yarrow *Achillea millefolium*, kidney vetch *Anthyllis vulneraria*, lady's bedstraw *Galium verum,* common cat's-ear *Hypochaeris radicata,* rough hawkbit *Leontodon hispidus*, bird's-foot trefoil *Lotus corniculatus,* cowslip *Primula veris,* meadow buttercup *Ranunculus acris,* common sorrel *Rumex acetosa,* oxeye daisy *Leucanthemum vulgare*, selfheal *Prunella vulgaris*, and white clover *Trigolium repens*. The wildflowers will provide a source of food to many invertebrate species, particularly pollinators.

Grassland also provides food and sheltering resource for other wildlife such as birds and small mammals.

2.3 Enhancement Features

The proposed locations of the enhancement features are illustrated in Appendix A. However, these proposed locations are to be used as a guide, with the final locations of these features

[1] Any fencing with naturally suitable gaps (10cm x 10cm or greater) between boards or rails will not require a hedgehog highway to be created.

[2] PDP Ltd Landscape Proposals – CCH L1 Rev. A

[3] https://meadowmania.co.uk/products/wildflower-plug-plant-mix-for-flowering-lawns

at the discretion of the client and their chosen contractors, but all definitive feature locations will be agreed with an appropriately experienced ecologist prior to installation.

This section provides an overview of the recommended ecological enhancements as recommended in the EcIA (Lizard Landscape Design & Ecology, 2021).

The following enhancement measures will be implemented:

- Bird boxes/bricks birds, targeted at Section 41 priority species of the 2006 Natural Environment and Rural Communities (NERC) Act, as well as Birds of Conservation Concern red and amber listed species;
- Bat boxes/bricks;
- Hedgehog boxes;
- Invertebrate boxes;
- Log piles; and
- Wildlife Safe Fencing.

2.3.1 Bird Bricks and Bird Boxes

Nine bird boxes, suitable for a range of species, will be integrated into the building's walls and mounted on suitable trees within the Site. Bird boxes and bird bricks on buildings will be placed on the northern and eastern aspect of the buildings to minimise artificial lighting and to avoid direct sunlight and overheating of boxes.

Three Orlando Swift boxes (or similar) will be installed on the north-east aspect of buildings, approximately 6-7m above the ground, under the eaves, as illustrated in Figure 1. It is essential that the entrance holes are not obstructed as swifts need sufficient space to drop into the air from the nest entrance. The boxes should be integrated within the walls; the proposed locations of these boxes are shown in Appendix 1.

Six Woodstone general purpose boxes (or similar) will be installed on the north-eastern aspects on the trunks of suitable larger trees approximately 3-4m above the ground as illustrated in Figure 2.

Figure 1: Orlando Swift Box: Suitable for swifts, house sparrows and starlings

Figure 2: Woodstone general purpose nest box: suitable for blue tits and great tits.

2.3.2 Bat Boxes

All bat boxes will be placed away from artificial light, and a sensitive lighting strategy should be implemented across the Site to minimise disturbance to foraging and commuting bats. Guidance is provided by the Institution of Lighting Professionals[4].

Illuminating bat roosts and key bat habitats, such as mature trees and hedgerows, to levels as low as 3.6 lux[5] can lead to delayed roost emergence, roost abandonment, and entrapment and can significantly disrupt foraging and commuting behaviour. Therefore, bat brick entrances and key habitats should not be directly illuminated, and lux levels around the entrance should be kept below 3.5 lux.

The above will be achieved by preparing lux contour plans and lighting schemes which include the following bat friendly design elements:

- All luminaires should lack UV elements, LED luminaires should be used where possible;
- All luminaires should at least have a warm white spectrum to reduce blue light, if possible red lights should be used;
- Any external security lighting should be set on motion-sensors and short (1 minute) timers; and,
- Column heights should be carefully considered to minimise light spill onto bat brick entrances and key habitats; and accessories such as baffles, hoods or louvres can be used to reduce light spill and direct light to where it is needed.

Four integrated bat boxes should be installed on the exteriors of the buildings, including two Integrated Eco Bat Boxes (cavity type, designed for a variety of species, see Figure 3), one Ibstock Enclosed Bat Box (see Figure 4), and one WoodStone Build-in Bat Tube (see Figure

[4] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

[5] Stone et al (2012) – “Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats”

5). They should be placed on the eastern and southern facing aspect of the buildings to improve the thermal capabilities of the boxes and integrated into the building construction. They should be placed at a height of between 4-6 m. The entrances to the bat bricks will not be exposed to any artificial sources of light and unobstructed to allow easy access. The proposed locations of these boxes are shown in Appendix A.

Figure 3: Integrated Eco Bat Boxes (cavity type, not crevice)

Figure 4: Ibstock Enclosed Bat Boxes, designed for Pipistrelle bats species

Figure 5: WoodStone Build-in Bat Tube, designed for crevice roosting bats

Six general purpose bat boxes (see Figure 6) should be installed on the trunks of suitable large trees. They should be positioned on the eastern and southern facing aspects of the trees at a height of between 4-6m. The proposed locations of these boxes are shown in Appendix A.

Figure 6: Woodstone general purpose bat box.

2.3.3 Hedgehog Boxes

To provide additional sheltering and hibernation opportunities, four hedgehog boxes will be installed. The boxes should be made of treated timber for longevity and have approximate dimensions[6] of 40cm length x 30cm width x 30cm depth with a small entrance tunnel measuring approximately 13cm x 13cm. See Figure 7.

Figure 7: Hedgehog nest box[7]

The boxes will be placed in suitable locations around the Site in the areas of retained habitat such as the woodland with ample cover of vegetation. These areas will have limited exposure to artificial light, food sources for hedgehogs such as fruiting trees, are provided shelter from harsh weather conditions and have access to connective habitat for safe migration and movement.

Once installed, the boxes should ideally be covered with a polythene sheet followed by soil, brash and leaf litter, leaving the entrance clear.

2.3.4 Invertebrate Boxes

Four invertebrate boxes should be installed on south facing tree trunks in the vicinity of the proposed wildflower-rich grasslands. The boxes should be made of treated timber and have holes or tubes for invertebrates to nest in. Other materials can also be used in the box such as pinecones, bark, twigs, or dead leaves. See Figure 8.

[6] British Hedgehog Preservation Society – Hedgehog homes (https://www.britishhedgehogs.org.uk/hedgehog-homes/)

[7] NHBS – Hedgehog Nest Box (https://www.nhbs.com/hedgehog-nest-box)

Figure 8: Insect tower[8]

2.3.5 Log Piles

Four log piles will be created to increase the diversity of habitats for wildlife on Site. Log piles are beneficial for several reasons including shelter, food sources, nesting opportunities, and improved soil structure for groups such as fungi, small mammals, birds, amphibians, reptiles, and invertebrates.

The log piles will be of varying sizes and can be created using the trunks and larger branches of trees to be removed prior to construction activities. They should be created close to the edges of the retained woodland and placed in dappled shade (Appendix 1).

2.3.6 Wildlife Safe Fencing

The perimeter fencing for the proposed development will include gaps at least 25cm wide and 17cm high to facilitate the movement of badgers *Meles meles* post-construction.

Any closed board fencing installed around the dwellings will be fitted with 15cm-by-15cm gaps to create hedgehog 'highways' to facilitate their movement and create connected habitat for the species.

3.0 Management and After-Care

3.1 Management Responsibilities

Following the implementation of the BPEP, the management of all landscape and biodiversity enhancements will be carried out by the appointed consultant for the duration of the consent.

[8] NHBS – Insect Tower (https://www.nhbs.com/insect-tower)

3.2 Wildlife Boxes/Bird Boxes/Bird Bricks and Log Piles

Whilst no long-term management of the proposed enhancement features is required, monitoring of the features is recommended to ensure the efficacy of the features.

Monitoring by an appropriately experienced ecologist should take place in Year 2 and 5, with a review of the features placement and any necessary adjustments made.

Furthermore, it is recommended that all wildlife boxes, bricks, and log piles installed on Site are inspected once every year. The inspection should check for structural integrity, vandalism, theft, and the accumulation of any old nesting material. If any issues are encountered, the boxes, bricks, or log piles should be repaired or replaced where necessary on a like for like basis. Boxes should be checked in winter when nesting birds will not be present.

3.3 Landscape Management

Details are provided in the Landscape Management Specification produced by PDP Landscape and Urban Design, May 2025. However, additional management procedures are provided below.

3.3.1 Wildflower Grasslands

In the first year after plug-planting, wildflower-rich grassland areas will be cut once with the sward cut to no lower than 6cm. If the grassland is planted in autumn, then the initial cut will take place no later than early to mid-April and all arisings removed. If the grassland is sown in spring, then the grassland will be left to grow and flower throughout the year until late September when it will be cut and arisings allowed to remain for 2 -3 days before being collected.

Following the initial establishment cut, subsequent cutting of the wildflower-rich grassland shall take place twice annually using a strimmer or reciprocal mower. Between October to early/mid-April the cut (c. 6-7cm) should avoid yellow-rattle *Rhinanthus minor* flowerheads if present, with the arisings removed to keep a short sward over winter and discourage the growth of any undesirable species into spring. Between late April and late August (weather dependent) leave uncut to allow flowers to develop.

Between late August and mid/late September, once the majority of the species are ready to shed seeds, the sward should be cut to between 7-10cm, with the arisings left *in-situ* to allow them to dry for 5-7 days. This will allow time for the dried seeds to shed and contribute to the regeneration process. Collect the arisings and mow to between 5-6cm and scarify, as required, to increase bare ground and promote soil/seed contact.

Scrub shall not be permitted to develop in the species-rich grassland areas. The mowing regime specified should be sufficient to control scrub. Grassland margins bordering with footpaths, kerbs, roads, and planting areas to be kept tidy with hand tools.

Should pernicious weeds (e.g., docks, thistles etc.) become established within grassland areas, these shall be spot treated with herbicide or removed by hand. Other solutions that may be considered include an application of a selective herbicide or a more intense but localised mowing regime, depending on species and the extent of the infestation.

Monitoring of this habitat should be undertaken in Year 2, with an assessment made by an experienced ecologist to identify the success of the planting and any replacement planting required. A further monitoring visit should be made in Year 5 by an experienced ecologist to assess the success of the planting and the species diversity of the grassland. Any remediations required should be made to the management of this habitat following these visits.

3.3.2 General Guidance on New and Existing Habitats

Soils imported onto the Site shall conform with the requirements of BS8601: 2013 [9](in relation to subsoil), and with BS3882: 2015[10] (in relation to topsoil). Topsoil shall be multipurpose topsoil. Soil materials shall be handled and spread in accordance with the requirements of the same two British Standard (BS) documents.

Soils used in landscaping that may be within planting zone will have their pH tested to confirm suitability for the intended planting mix, with any remedial action implemented as required.

All newly soiled areas (excepting the wildflower-rich grassland) shall be ameliorated with 50mm depth approved organic material e.g., spent mushroom compost / green waste compost. Material shall be fine grade and must be well composted. Compost will be applied shortly prior to cultivation and incorporated evenly into the top 150mm of soil.

Planting shall take place in the first available season after the completion of construction works, following topsoil spreading. Seeding may be undertaken in advance of planting, to prevent issues of soil erosion. All plants shall consist of healthy stock with well-balanced branch structures and well-developed fibrous root systems. Planting generally shall be in accordance with the Committee for Plant Supply and Establishment's 'Handling and Establishing Landscape Plants' guidance[11] (Part III, paragraphs 6.2 to 6.6), whilst plant handling, storage and transport shall accord with Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0 and 4.0 of the same guidance.

During planting, the soil around plants will be gently firmed, after which the soil will be forked and/ or raked (without damaging roots) to leave a fine tilth with gentle cambers and no hollows. Immediately after planting and prior to any mulching, all planting areas will be watered thoroughly to field capacity, with care taken to avoid damaging or displacing plants or soil.

All planting shall be watered as required during establishment.

It is not anticipated that there will be any tracking of machinery, storage of materials or chemicals within the Root Protection Areas (RPAs) of retained trees. However, if necessary, protective fencing should be installed to protect existing vegetation from such activities. Protective fencing will comprise Heras fencing supported by a vertical and horizontal framework of scaffolding in accordance with Figure 2 in BS 5837:2012. Protective fencing should be located outside of the RPAs of trees/vegetation to be retained (see CBA Trees Arboricultural Method Statement, March 2023[12]).

Should any construction works be required within the RPAs of existing trees which requires mechanical digging, the contractor shall obtain an Arboricultural Method Statement to facilitate works and to provide a detailed review of appropriate work methods.

All trees retained as part of the development proposals shall be protected in accordance with the approved Arboricultural Method Statement and Tree Protection Plan.

Following construction and occupation, all trees will be monitored and managed in an appropriate manner by an arboriculturist. This will include the commissioning of a qualified arboriculturist to undertake a regular inspection of the health and structural condition of all trees and to produce a schedule of any remedial or arboricultural management works required or recommended in accordance with BS. Focus will be given to the risk of trees

[9] BSI (2013) BS 8601:2013 Specification for subsoil and requirements for use. British Standards Institution

[10] BSI (2015) BS3882: 2015 Specification for topsoil. British Standards Institution

[11] Committee for Plant Supply and Establishment (1995) Handling and establishing landscape plants

[12] https://www.cbatrees.co.uk/planning-reports-in-relation-to-trees-bK

causing harm to persons or property, to the physiological and structural condition of individual trees (including the recording and monitoring of disease or decay) and to the ongoing management of trees, understorey and soils to improve arboricultural quality and longevity.

4.0 Summary

An BPEP has been produced to satisfy the requirements of Planning Condition 6. The measures set out in this document, if implemented and maintained correctly, will offer increased resources, opportunity and connectivity for wildlife on Site.

This management plan should be reviewed every five years and updated as necessary to ensure the long-term success of the biodiversity management and enhancement works at the Site.

Appendix A Drawing 1

Biodiversity Permeability and Enhancement Plan

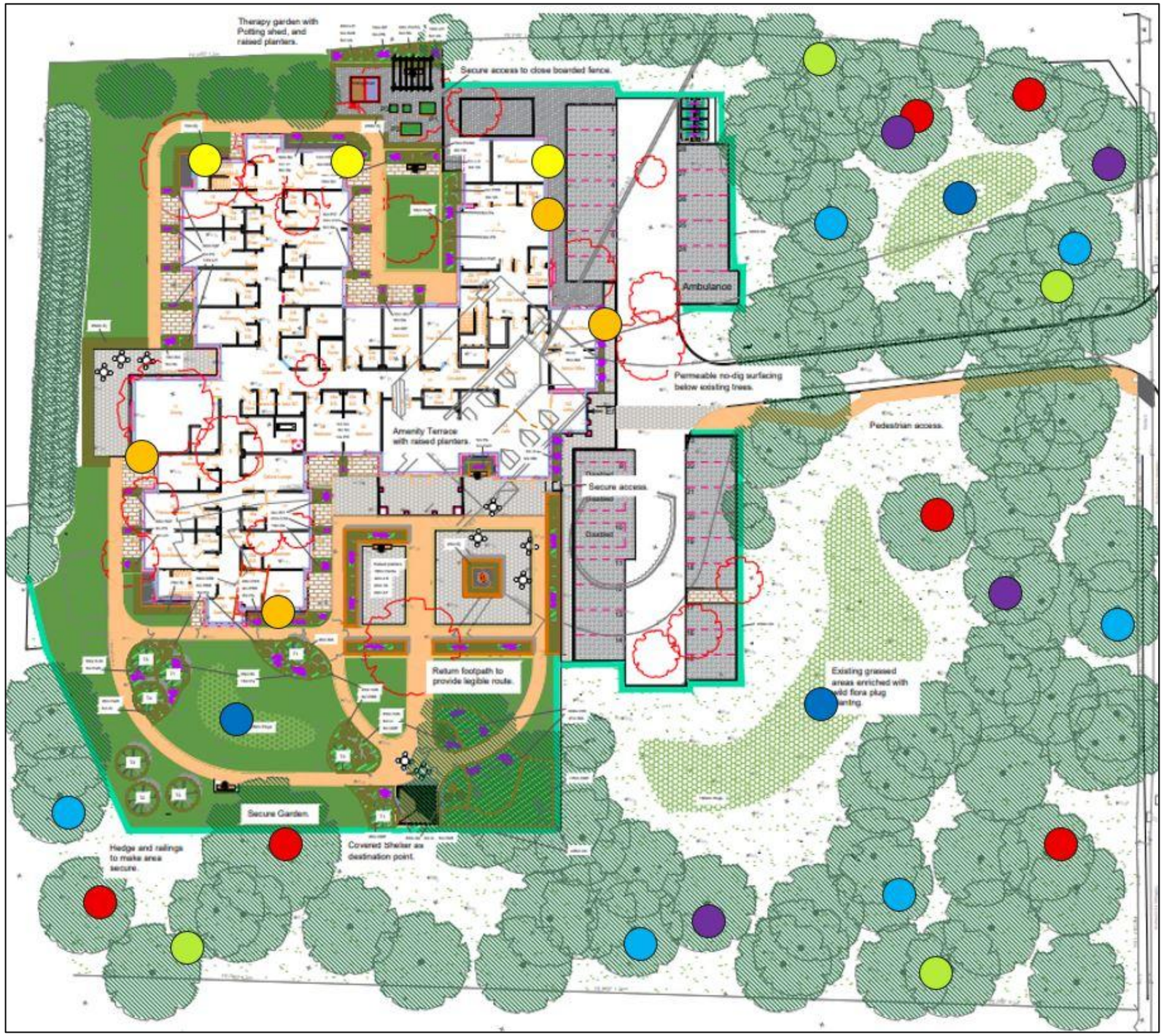
Care Home Scheme, Crowthorne, Berkshire

Barchester Propco 2019 Limited

SLR Project No.: 404.064687.00001

2 December 2025

Drawing 1. Biodiversity Permiability and Enhancement Plan for Land at Oakdale.



Orlando Swift Box Locations

Wall Integrated Bat Box Locations

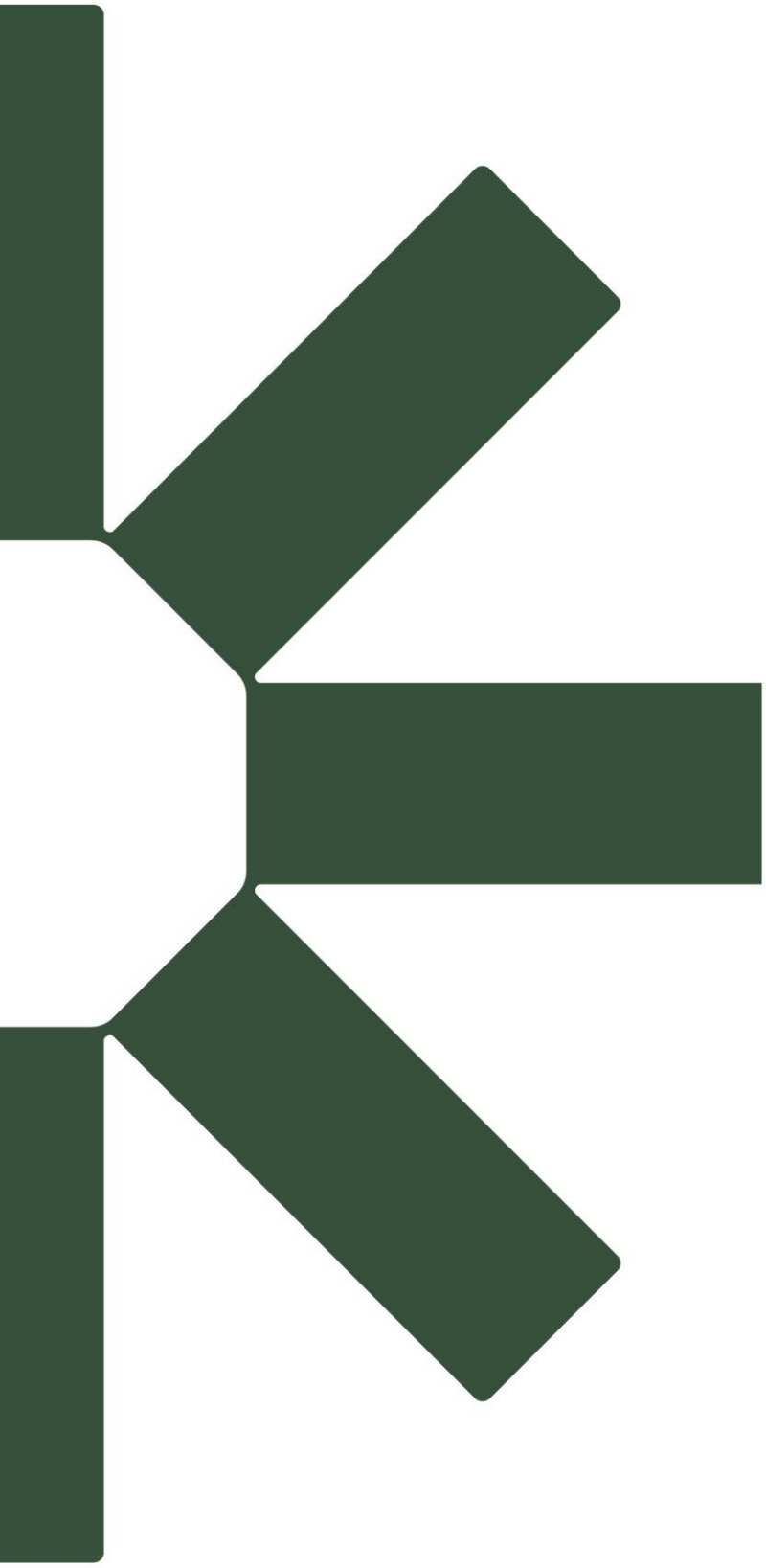
General Purpose Bat Box Locations

General Purpose Bird Box Locations

Plug-Planting of Wildflowers Locations

Hedgehog Box Locations

Invertebrate Box Locations



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