



**Land off Sketchley
Lane, Burbage,
Hinckley**

**Biodiversity and
Landscape
Management Plan**

Prepared by:
**The Environmental Dimension
Partnership Ltd**

On behalf of:
**Persimmon Homes North
Midlands**

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Section 1

Introduction, Context and Purpose

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Persimmon Homes North Midlands (hereafter referred to as 'the Developer') to prepare a Biodiversity and Landscape Management Plan (BLMP) in relation to the proposed development of Land off Sketchley Lane, Burbage, Hinckley (hereafter referred to as 'the Site').
- 1.2 The Site currently comprises six grassland fields of mixed agricultural use, including cattle and horse grazing. The fields are bounded by hedgerows, tree lines and/or fencing. Small areas of more valuable habitat including semi-improved grassland, scrub, tall ruderal are also located within the Site and a watercourse is located at the Site boundary. Three built structures (agricultural buildings) are present within the Site.
- 1.3 Outline planning consent was granted at appeal on 04 January 2023 (Hinckley and Bosworth Council planning ref. 21/01131/OUT) for the demolition of existing poultry and cattle buildings, and a residential development of up to 150 dwellings with vehicular access from Sketchley Lane.
- 1.4 This BLMP has been produced to accompany a Reserved Matters Application for the development and to fulfil a planning obligation contained in the Section 106 (s106) agreement attached to the outline planning consent. The obligation states that:

"The Owners shall submit the Biodiversity and Landscape Management Plan to the Borough Council for approval with the first of the reserved matters application pursuant to the Planning Permission. The Owners shall not Commence the Development or carry out any clearance works at the Application Land until the Biodiversity and Landscape Management Plan is approved by the Borough Council."

- 1.5 The BLMP is defined in the s106 agreement as:

"...a strategy for protecting and enhancing biodiversity including the detailed design of proposed Amenity and Green Infrastructure (as shown on Land Budget drawing epd4824_d045) and its subsequent management once the Development is completed. The submitted plan shall be based on the advice of the Ecological Appraisal Report and include –

- a) *arrangements to secure an Ecological Clerk of Works on site;*
- b) *construction method statement including timing of works to avoid periods of work when protected species such as nesting birds could be harmed by disturbance, sensitive working methods during vegetation clearance and protection of retained habitats using protective fencing, exclusion barriers and warning signs;*
- c) *survey to establish if badgers would be affected by the proposed development and a mitigation/compensation scheme if required;*
- d) *reptile mitigation strategy;*

- e) *habitat features and refuges for protected species including bird and bat boxes;*
- f) *enhancement of retained habitats, including*
 - *gap planting of existing hedgerows with suitable native species;*
 - *enhancement of existing grassland with native wildflower species; and*
 - *works required for retention of U grade trees;*
- g) *creation and establishment of new habitats, including*
 - *species-rich hedgerows;*
 - *broadleaved woodland (landscape structure planting);*
 - *wildflower meadow habitat;*
 - *wetland habitats within SuDS;*
- h) *management of retained, enhanced and newly created habitats including SuDS, hedgerows, trees, woodland and species-rich grassland; and*
- i) *timetable for implementation including monitoring and review of management activities; and*
- j) *the funding of the commitments and their future maintenance; and*
- k) *monitoring of the maintenance of the approved scheme by an independent ecologist at the cost of the Owners who shall report annually to the Borough Council which may include requirements for such remediation measures as may from time to time be necessary to ensure conformity with the approved plan.*
- l) *minimum net gain of 50% habitat units and 10% linear units calculated using the Environment Bank's Biodiversity Impact Calculator (v2, May 2019) (based on the Department for Environment Food and Rural Affairs (Defra) Biodiversity Metric) as set out in Appendices 3 and 4 of the ecology appraisal (document edp4824_r037a) submitted with the Planning Application."*

1.6 This BLMP sets out the details required above, drawing where relevant upon other documents/designs prepared in support of the Reserved Matters Application. In particular, this document should be read in conjunction with the following:

- Detailed Soft Landscape Proposals for Plots and POS (ref. JBA 23/348-12 Rev C, November 2023); and
- Arboricultural Method Statement (AMS) (report ref. edp8343_r001, December 2023).

Section 2

Scope, Aims and Responsibilities

SCOPE

- 2.1 This BLMP sets out the measures to be undertaken to protect and enhance the biodiversity interest at the Site prior to and during the construction phase, and during the post-construction phase of the development.
- 2.2 This BLMP will extend over the lifetime of the development, requiring subsequent monitoring and review of all operations at five-year intervals post-development, so as to take account of any changes to the Site or other influencing factors, which may become evident as the biodiversity and landscape features become established. This will also be informed by the results of proposed monitoring during establishment. This BLMP will also further the design principles established at the time of the outline application for this development.
- 2.3 The management scheme defined within this BLMP is structured to take into account the following phases of the development works:
- Enabling and pre-construction phases;
 - Construction; and
 - Long-term management and maintenance.

AIMS

- 2.4 This BLMP aims to:
- Set out measures for the appropriate and effective protection of retained features of biodiversity and landscape value during the pre-construction and construction phases;
 - Ensure the appropriate management of any tree/vegetation works including clearance, planting and establishment during each phase of development; and
 - Set out measures for the long-term management and maintenance of all areas of soft landscaping associated with each phase of development to ensure that such features are protected and enhanced over the long-term, such that all benefits to biodiversity (including net gain) and visual amenity are delivered successfully throughout the lifetime of the scheme.

RESPONSIBILITIES AND FUNDING

2.5 The responsibility for carrying out the functions of this BLMP will vary throughout the duration of the management period as follows:

- Enabling and Pre-construction Phases: All management and maintenance works of those features and species of ecological importance are the responsibility of the Principal Contractor appointed by the Developer, and are to be completed by the Principal Contractor until sign-off of the relevant part by the Developer prior to the start of the Construction Works Phase of each development plot;
- Construction Works Phase: All management and maintenance works of all features and species of ecological importance are the responsibility of the Developer, and are to be continued through to practical completion; and
- Long-term Management: As set out in the s106 agreement, 12 months after the on-site open space has been completed the Developer will serve written notice on the Borough Council confirming whether it wishes to maintain the open space or transfer to a Management Company, or whether it intends to transfer the open space to the Parish Council. In the event the Parish Council adopts the open space or any part of it, the commuted sums are as follows:
 - £94,824 in respect of the Local Equipped Area of Play (LEAP) Play Area;
 - £27,216 in respect of the casual informal play space; and
 - £85,200 in respect of the accessible natural green spaces.
- As agreed by the Council the total contribution and maintenance funding provision will accommodate the over provision of Public Open Space (POS) at the following rates:
 - Equipped Childrens' Play Space at £181.93 per sqm contribution and £175.60 per sqm maintenance;
 - Casual/Informal Play Space at £4.44 per sqm contribution and £10.80 per sqm maintenance; and
 - Accessible Natural Green Space at £4.09 per sqm contribution and £14.20 per sqm maintenance.
- The Site provides an over provision of 78,129.2 sqm of Accessible Natural Green Space, which would equate to a fee of £319,548.43 contribution and £1,109,434.64 for maintenance.

2.6 The management scheme detailed within this BLMP is specific to all areas of soft landscaping associated with the Site and will cover provision, management, inspection, maintenance, repair and replacement as necessary, taking into account factors including ecological, landscape, social, wildlife and amenity use of areas of green open space associated with the Site.

Section 3

Existing Biodiversity and Landscape Interest

- 3.1 The biodiversity and landscape interest at the Site has been identified through a range of ecological and arboricultural surveys completed in support of the outline planning application. The most recent ecological baseline information is set out within the following reports:
- Ecological Appraisal (report ref. edp4824_r037, August 2021); and
 - Ecology Addendum (report ref. edp4824_r041, November 2021).
- 3.2 In addition to the above, an update ecological walkover survey and badger (*Meles meles*) survey were undertaken by an EDP ecologist on 09 November 2023, the results of which are set out below.
- 3.3 The most recent arboricultural baseline information is set out within the Arboricultural Impact Assessment (Incorporating Tree Protection Measures) (report ref. edp4824_r010, March 2022).
- 3.4 The biodiversity and landscape interest at the Site is summarised below.

HABITATS/LANDSCAPE FEATURES

- 3.5 The habitats present within the Site are illustrated on **Plan EDP 1** and described in **Table EDP 3.1**.

Table EDP 3.1: Existing Habitats/Landscape Features

Habitat	Notes	Ecological Importance
Mature trees	The arboricultural assessment recorded 63 trees/groups of trees within the Site (excluding hedgerows). This includes 2 Category A, 35 Category B, 9 Category C and 16 Category U trees. Category U trees have a limited lifespan but often have high biodiversity value. Five of the mature trees on-site are also classified as Potential Local Wildlife Sites (PLWS).	Local
Hedgerows and Lines of Trees	A total of 15 hedgerow sections were mapped during the ecology surveys, together with several outgrown hedgerows classified as lines of trees. There are highly variable in terms of species-richness and intactness. With reference to Plan EDP 1 , hedgerows H11 and H13 are classified as PLWSs, and hedgerows H4 , H9 and H15 meet the Wildlife and Landscape criteria for 'important' hedgerows with respect to the Hedgerows Regulations (1997).	Local

Habitat	Notes	Ecological Importance
Semi-improved neutral and marshy grassland	Mostly within fields in the north-eastern portion of the Site. More species-rich than the improved grassland but found not to qualify for Local Wildlife Site (LWS) designation.	Local
Stream/wet ditch	Running along southern and eastern site boundaries. Mostly overgrown/shaded.	Local
Improved grassland	Dominant habitat – species-poor and heavily grazed.	Negligible
Tall ruderal	Small scattered patches.	Site
Scrub	Small scattered patches.	Site
Buildings	Three farm buildings.	Negligible

3.6 As noted above and on **Plan EDP 1**, the majority of land cover within the Site is agricultural grassland of negligible intrinsic ecological importance. However, the mature trees, hedgerows, semi-improved neutral grassland and wet ditch habitats are judged to be of up to ‘Local’ level ecological importance.

3.7 Proposed measures to protect retained habitats during the construction phase are set out in **Section 4** of this BLMP, whereas proposed measures to enhance retained habitats and create new habitats are set out in **Section 5**.

PROTECTED/PRIORITY SPECIES

3.8 The populations of protected/Priority Species present (or potentially present) within the Site are described in **Table EDP 3.2**.

Table EDP 3.2: Existing Protected/Priority Species

Species/Group	Notes	Ecological Importance
Breeding Birds	Limited assemblage of common and widespread species nesting almost exclusively within the trees, hedgerows and other woody vegetation along the field boundaries.	Local
Bats	<u>Roosting</u> – no bat roosts were recorded in any buildings, however, a potential bat feeding perch was identified within building B1 (as labelled on Plan EDP 1). In addition, 21 trees or tree groups were identified as being suitable for roosting bats, with 3 of high suitability, 5 of moderate suitability and 13 of low suitability (see Plan EDP 2). <u>Foraging/commuting</u> – moderate assemblage of mostly common and widespread bat species (with occasional rarer species) primarily associated with boundary hedgerow and tree habitats.	Local

Species/ Group	Notes	Ecological Importance
Badger	The recently updated badger survey did not record any active setts within or near to the Site but evidence of occasional presence was recorded. Two potential disused/former outlier setts and one badger latrine were recorded on the southern boundary of the Site (see Plan EDP 3) and one potential disused/former outlier sett was recorded.	Site
Grass snake (<i>Natrix Helvetica</i>)	Small population recorded in tall vegetation around farm machinery in the north of the Site in 2018. None were recorded during an update survey in 2021, but their occasional presence on-site cannot be ruled out.	Site

- 3.9 Proposed measures to avoid harming protected/Priority Species during the construction phase are set out in **Section 4** of this BLMP, whereas proposed measures to enhance opportunities for these species are set out in **Section 5**.

Section 4

Construction Method Statement

- 4.1 This section sets out the appropriate working practices and safeguards to be deployed throughout the pre-construction and construction phases of the development including all associated enabling works, to protect the relevant biodiversity and landscape described in **Section 3**.
- 4.2 Measures to mitigate/compensate for habitat losses, which will unavoidably occur during the pre-construction and construction phases of the development, are described in **Section 5**.

GENERAL PROTECTIVE MEASURES

Ecological Clerk of Works

- 4.3 The appointed Ecological Clerk of Works (ECoW) will be responsible for the provision of information and 'tool box talks' regarding ecological sensitivities to the Principal Contractor and Site Manager prior to commencement of works as required. A hard copy of this BLMP will be kept onsite for reference by the Principal Contractor when needed.
- 4.4 The ECoW will also supervise relevant pre-construction works, including vegetation clearance and habitat creation, where this is considered necessary to avoid significant impacts to protected species, in addition to undertaking any necessary pre-commencement checks for protected species described below.
- 4.5 At the time of writing, it is anticipated that EDP will act as the ECoW during the implementation of the proposed development. Contact details for the practice are provided below:

The Environmental Dimension Partnership Ltd (EDP)
Quarry Barn
Elkstone Studios
Elkstone
Gloucestershire
GL53 9PQ
Tel: 01285 740427

Tree Protection

- 4.6 Protective fencing will be erected around retained trees in accordance with the AMS and with reference to those recommendations set out within *BS 5837: 2012 Trees in relation to design, demolition and construction* or similar, along all habitats to be retained.
- 4.7 A total of 30 category U trees, groups, or hedgerows have been identified on the Site. These have been retained wherever practicable due to their potential to provide ecologically valuable habitat, with removal only cited where necessary to facilitate the development. As such, only one category U tree is to be removed (**T15** as discussed above). Deadwood

resulting from the felling of this tree will be retained on the Site within a log pile located adjacent to a retained hedgerow within the POS.

Temporary Protective Fencing

- 4.8 All vegetation to be retained will be included within Ecological Protection Zones, which will be clearly delineated using protective fencing. This includes the full root protection area (RPA), as detailed within the Arboriculture Method Statement (report ref: edp8343_r001), and also the areas of retained grassland (see **Plan EDP 4**). The fencing will be maintained throughout the duration of all enabling and pre-construction activities and remains the responsibility of the Principal Contractor appointed by the Developer.
- 4.9 More generally, sensitive habitats immediately adjacent to the construction footprint will be marked by protective fencing to ensure no encroachment/trampling of these habitats during the construction phase. All protective fencing will include warning signs stating the purpose of the protective fencing (e.g. habitat protection) and that this must not be removed. Example signage is provided within **Appendix EDP 1** of this document.
- 4.10 No works (other than planting), including the storage of materials, plant and machinery, will be carried out within or immediately adjacent to all areas of protective fencing/areas marked for protection as described above, so as to ensure no detrimental impacts to sensitive features arising from physical damage and/or pollution.

Temporary Artificial Lighting

- 4.11 Temporary lighting, if required, will be kept to a minimum and will employ a sensitive lighting strategy. This will include:
- The reduction in height of lighting columns deployed across the Site to allow for low-level lighting or, where appropriate, the use of tall columns designed to allow light to be directed downwards more acutely so as to reduce horizontal spill;
 - The use of light spill accessories such as hoods, shields and filters to allow for lighting to be directed to the intended area only such that light spillage is avoided elsewhere;
 - The use of timed and/or sensor lighting across the Site; and
 - Timed lighting programmed to ensure adequate dark periods between dusk and dawn across the development Site, and particularly along site boundaries.

SPECIES-SPECIFIC MEASURES

Roosting Bats

Buildings

- 4.12 A potential bat feeding perch was identified within building **B1** although no other evidence of a bat roost was recorded. As such, it is proposed that a precautionary approach be undertaken for the demolition of this building as follows:
- Building **B1** is not suitable for hibernating bats, therefore the stripping/demolition of this buildings should occur outside of the summer roosting period (April to October) where possible;
 - A bat licensed ecologist will check the structure for bats, using an endoscope, immediately prior to and during any works affecting the roof; and
 - The bat licensed ecologist will then supervise the 'soft strip' of any features that have bat roosting potential. This entails the careful removal, by hand or using hand tools, of any potential bat roosting materials (such as tiles, etc.). Such materials will be carefully lifted away and not rolled, slid or sprung to avoid potential harm to bats.

Trees

- 4.13 A review of the Arboricultural Method Statement prepared for the Reserved Matters Application confirms that a single tree with bat roosting suitability will require removal to facilitate the development. Tree **T004** on **Plan EDP 2** is a category U ash (*Fraxinus excelsior*), assessed to have moderate suitability to support roosting bats and listed for removal within the AMS. It will therefore be necessary to confirm presence/absence of any bat roosts prior to felling. This will either take the form of a climbed endoscope inspection survey, or if this is not possible, then dusk emergence surveys, to determine roost presence/absence. Surveys will take place within the active bat season (May to September) in accordance with best practice guidance¹.
- 4.14 In addition, crown lifting is required to a group of trees within the south-east of the site, which may have an impact on **T021** shown on **Plan EDP2** as having high suitability to support roosting bats. Therefore, prior to any work taking place to this group of trees, a suitably experienced ecologist will complete an update ground level roost assessment to determine whether any potential roosting features would be impacted by crown lifting. If so, further survey work would be required as detailed above for **T004**.
- 4.15 Should the felling or removal of limbs from any of the trees with bat roost potential be required in the future, e.g. on grounds of public safety or sound arboricultural management, such works should be preceded by detailed aerial surveys to confirm the presence/likely absence of bats.
- 4.16 The survey work to determine bat roost/absence will determine the need for further mitigation. Should any roost/s be identified within trees to be impacted by the development

¹ Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition. Bat Conservation Trust, October 2023.

then a Natural England mitigation licence will be required prior to removal and appropriate mitigation and compensation measures implemented. This would likely involve the erection of appropriate bat boxes on nearby retained trees and a 'soft' felling methodology under ecological supervision, details of which would be provided within the licence application. Where no roosts are present a soft felling methodology will be utilised due to the highly transitional nature of bat roosts in trees.

Breeding Birds and Reptile Mitigation Strategy

- 4.17 Development proposals will result in the loss of some of the existing grassland habitats located across the Site, in addition to the removal of sections of hedgerow, tree, shrub and scrub habitat to facilitate construction. Such habitats have the potential to support nesting birds and grass snake. As such, precautionary measures will be adopted during clearance to ensure the avoidance of harm/injury and disturbance to such species and are detailed below.

Clearance of Grassland

- 4.18 The construction footprint, including the areas of POS proposed for use as a construction compound and the location of the new attenuation basins, is dominated by semi-improved and improved grassland habitat. Clearance of such habitat will be undertaken as follows:
- If any areas of grassland are judged by the ECoW to be suitable for hibernating grass snakes, clearance of these areas will be undertaken outside of the hibernation period (November–February inclusive). The remainder of the grassland can be cleared at any time of year although the potential for nesting birds needs also to be considered as described below;
 - If any areas of grassland are judged by the ECoW to be suitable for ground nesting birds, clearance of these areas will be undertaken outside of the bird nesting period (typically March to August inclusive) where possible. If this period cannot be avoided a pre-commencement check for active bird nests will be undertaken by the ECoW immediately prior to the commencement of works. Where an active bird nest is identified, a 5–10m buffer (dependent on individual species requirements, and potentially greater, as specified by the ecologist at the time) will be established around the active nest, with no clearance works permitted within this buffer until all young have fledged and the nest confirmed inactive by the ECoW;
 - Grassland habitat will be subject to directional cutting over up to two phases, depending on its existing height. Areas of grassland with a height of 175mm or more will be subject to an initial cut down to a minimum of 175mm, with clearance commencing from the centre of the fields and directed towards adjacent retained habitat (i.e. retained vegetative boundaries). A second cut of all grassland will be undertaken immediately thereafter, with vegetation cut to ground level and no greater than 30mm in height;
 - During clearance, any potential grass snake refugia located within the construction footprint will be carefully dismantled using hand tools, hand-held machinery or untracked, light machinery to facilitate efficient supervision by the ECoW;

- All arisings will be removed from the construction footprint within 24 hours and vegetation will be maintained thereafter at a height no greater than 20mm through regular mowing or as bare ground to discourage grass snakes from returning; and
- In the event that any grass snakes are identified during site clearance, these will either be captured by hand by the attending ECoW and immediately released into retained habitat adjacent or otherwise left to disperse of their own accord.

Clearance of Hedgerow, Scrub and Scattered Trees

4.19 The construction footprint includes woody habitats requiring removal. Clearance of such habitat will be undertaken as follows:

- Above-ground vegetation clearance of hedgerow, scrub and tree habitat should be undertaken between October and February inclusive, so as to avoid the main bird breeding season;
- Thereafter, trees, shrubs and scrub to be removed will be cut down to heights of between 30cm and 50cm above ground level, using hand tools only, and in a direction towards retained vegetation;
- During above-ground clearance, brash will be left onsite to aid dispersal of wildlife during this time before being taken offsite or with waste chipped and stored away from sensitive vegetated areas upon completion. Vehicles will avoid tracking across areas subject to clearance and will instead be confined to the hedgerow edges and field interiors utilising long-reach machinery where required;
- Following the completion of above-ground clearance of vegetation, works to grub out remaining stumps and roots will be undertaken outside of the grass snake hibernation period (November–February inclusive) and when air temperatures are above 5°C;
- Prior to below-ground clearance, a thorough pre-commencement check for active bird nests will be undertaken by the ECoW across all areas of above-ground vegetation remaining. Where active nests or nests under construction are discovered, then appropriate buffers will be marked out around such nests until all eggs have hatched and chicks fledged;
- A search for suitable reptile refugia will also be undertaken by the ECoW prior to commencement, with any such areas identified subject to a prior fingertip search for any grass snakes and other wildlife. Where identified, such individuals will be re-located to areas of retained vegetation outside of the construction footprint, before dismantling such refugia using hand tools;
- Thereafter, all below-ground material including tree stumps, root balls, buried rubble, spoil etc. will be lifted out using a tracked excavator and undertaken in a sensitive manner to ensure no significant disturbance to soil and adjacent, retained planting;
- Following completion of the above and below ground vegetation clearance works all arisings will be taken away from the vicinity of the development footprint within 24

hours with clearance areas then released to the Developer to enable the commencement of the construction works; and

- Some logs and brash produced during clearance will be kept and used to make at least two new reptile refugia/hibernacula as described further within **Section 5**.

4.20 All areas within the tree protection barriers (as detailed within the AMS), will remain undisturbed throughout construction. Where works are required within the RPA of a low number of trees, this will be mitigated as detailed within the AMS, using measures such as a 'no dig' methodology for hard surfacing and hand digging of excavations. Please refer to the AMS for relevant details. Ecological safeguards can be implemented alongside the arboriculture mitigation as necessary.

Maintenance of Areas of Cleared of Vegetation

4.21 Should there be a delay between the end of the pre-construction phases and the beginning of the construction works phase, such that vegetation begins to re-colonise, then such vegetation will be subject to regular cutting in the interim to ensure heights are maintained at circa 20mm or less, or else maintained as bare ground to deter the return of wildlife to the construction area.

Badger

4.22 The Site does not currently support any active badger setts, such that there is no risk of harming/disturbing an active sett during construction works. However, a single badger latrine was recorded on the southern boundary of the Site during the recent update survey, which confirms that individual badgers are occasionally present. The following best practice measures will therefore be adopted to protect badgers from harm during construction:

- Any excavations/trenches will be sealed flush at ground-level overnight to prevent access, or formed with a gently sloping side to help any trapped badger (or other animals) to escape;
- Alternatively, a sturdy plank of wood can be installed at an angle to create a gently sloping ramp to allow animals to escape;
- Excavations must be visually checked by the Principal Contractor, prior to being filled in, to ensure badger (or other animals) are absent;
- Large open pipework with an outside diameter of greater than 120mm should likewise be covered to prevent animals becoming trapped; and
- Should any badger setts or other protected species be present/suspected present, then work must cease at that location immediately and a suitably experienced ecologist contacted immediately for advice on how to proceed.

4.23 In addition to the above, a pre-construction badger check should be undertaken by the ECoW prior (within three months) to works commencing on-site, to ensure that badgers have not subsequently moved into the Site and created a new sett.

Section 5

Habitat Enhancement and Creation

- 5.1 This section sets out the habitat creation and enhancement measures that will ensure that the development contributes to the conservation and enhancement of biodiversity within the Site and for the wider area.
- 5.2 The development proposals will result in the loss, damage and/or destruction of suitable habitats for breeding birds, foraging and commuting bats and grass snake, including areas of grassland, scrub and hedgerow. To compensate for such losses, and provide a net gain in biodiversity overall, the detailed soft landscape proposals for the Site include extensive habitat enhancement and creation as detailed below.

ENHANCEMENT OF RETAINED HABITATS

Existing Trees and Hedgerows

- 5.3 The majority of the existing hedgerows and trees are to be retained, with only a few small sections lost to facilitate access.
- 5.4 Existing trees will be subject to regular inspection and the contractor should be satisfied that tree preservation orders (TPO) have not been notified for the Site during the maintenance period; if TPOs are applicable the contractor must comply with the provisions of the Town and Country Planning (Trees) Regulations (Amendment) 2008.
- 5.5 Any specified tree surgery works will be carried out in accordance with BS 3998:2010 '*Tree Works Recommendations*', Health and Safety legislation and relevant best practice. Prior to commencement of any works the contractor must provide valid proof of required Public Liability Insurance and a full working method statement and risk assessment.
- 5.6 A visual inspection will be carried out of individual trees and woodland edges within 10m of public paths at every visit. Any damaged, diseased or dangerous timber shall be reported, and a schedule of appropriate operations agreed.
- 5.7 As discussed in **Section 4**, category U trees will be retained wherever possible. However, should any works be required in the future to retain these safely then this will only take place after an inspection by a suitably experienced ecologist to assess any potential impacts on bat roosting features.
- 5.8 Brash arising from any tree works required in the future will be used to create habitat piles within retained grassland or hedgerow corridors to provide deadwood resources for invertebrates.
- 5.9 Any gaps in existing retained hedgerows, such as at the south-west of the Site, will be interplanted with similar native species to ensure continuous hedgerow. A double staggered row will be planted including species such as hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), dog-rose (*Rosa canina*), and dogwood (*Cornus sanguinea*).

5.10 The existing hedgerows shall be maintained at a uniform height of 3m. The main objective for management is to maintain a varied age, condition and size of hedgerow in order to support a variety of wildlife. The basic principles for appropriate hedgerow trimming are as follows (Royal Society for the Protection of Birds (RSPB), 2008):

- All cutting regimes will be carried out on a three-year rotation. This ensures that thick nesting cover is available annually for birds and will also help to boost the berry crop that often develops on second year growth;
- Trimming will be undertaken during the months of January or February to prevent disturbance to nesting birds. Cutting at this time of the year also allows the berry crop to be used by over-wintering birds, which is a vital part of their diet when food is scarce;
- Trees will be allowed to develop within the hedgerows at spacing of approximately one tree every 20m; and
- The margins will be left unmanaged to encourage the development of tall grasses and ground-flora.

Existing Grassland

5.11 Aside from proposed areas of amenity grassland in close proximity to the residential development area, the majority of existing grassland within the POS to the south and west of the development will be enhanced to improve its botanical diversity. Exceptions to this are where the grassland will be temporarily lost to facilitate measures such as construction of the SuDS basin and siting of the construction compound. In such cases the land will subsequently be reseeded with a wildflower grassland mix.

5.12 The retained areas of grassland will be oversown with a species-rich wildflower grassland mix (Emorsgate EM2, or similar). Establishment and early management will comprise the following:

- Sowing will take place in September or spring (March–May). The existing grassland will first be cut and harrowed with dead grass (and any unwanted plants) removed. At least 50% bare soil should be achieved to allow the seeds good contact with the soil. The seed mixtures will be sown as per the manufacturers prescribed sowing rate;
- The areas will be fully watered to ensure healthy establishment;
- Weed growth will be controlled through hand-pulling or spot control using glyphosate-based herbicides. No fertiliser will be used within the grassland at any point during preparation, seeding, establishment or maintenance;
- Prior to planting/cutting all areas shall be cleared of litter and debris;
- Most sown wildflowers will not flower during the first growing season. Annual weeds will be controlled by regular mowing or topping. The grassland will be cut to a minimum height of 100mm (to avoid impacts on any resident fauna) between May and July during the first year. Arisings will be removed to prevent the built up of nutrients; and

- From Year 2 onwards management will follow that of traditional meadows, as detailed in **Section 6**.

Existing Marshy Depression

- 5.13 The existing marshy area within the POS immediately to the south of the proposed residential area will be excavated to a maximum depth of 0.5m, with a varied depth profile with shallow slopes, to create an ephemeral wet area with marginal vegetation for additional wildlife value. Any excavation works will be preceded by sensitive vegetation clearance in respect of grass snake as described in **Section 4**.
- 5.14 The excavated topsoil should be used to profile the edge of the new wetland feature. The area will be seeded with a species-rich wildflower grassland mix suitable for seasonally wet soil (Emorsgate EM8, or similar). Sowing will take place in early autumn or spring once the land has drained. Thereafter, the wet grassland will be managed as prescribed above in relation to the enhanced retained grassland.

CREATION OF NEW HABITATS

Native Scrub and Scattered Trees

- 5.15 New shrub and scattered tree planting is proposed within the POS. The proposed mix of species is detailed within the soft landscape proposals. This includes blocks of native buffer planting, which includes a mix of native scrub species such as guelder rose (*Viburnum opulus*), elder (*Sambucus nigra*), hazel and alder buckthorn (*Frangula alnus*). Tree planting throughout the open space includes a variety of native species such as field maple (*Acer campestre*), silver birch (*Betula pendula*) and hornbeam (*Carpinus betula*). This tree and shrub planting will provide a range of pollen, fruit and nut resources, thereby increasing foraging resources for birds, mammals and invertebrates, as well as providing structural diversity with associated nesting and refuge opportunities.
- 5.16 To ensure their survival and optimal development, new trees will be subject to intensive establishment maintenance:
- All new planting to take place over the winter period (March–October). Newly planted specimens will be protected from animal damage by the use of rabbit-proof fencing, netting or individual tree guards;
 - Base of each tree to be kept free from weeds, including a 1m diameter ring of mulch to be topped up as necessary, and application of a selective herbicide to manufacturers recommendations;
 - Watering to ensure moisture levels are maintained appropriate for optimum growth during establishment period only. Newly planted trees should be watered a minimum of 13 times in the first year after planting, though more if the weather requires. The trees should be watered a minimum of 7 times in Years 2 and 3, and then as required in the following years;

- All plants are to be planted in accordance with *BS 3936:1992 Nursery Stock*. A mycorrhizal inoculant to replace naturally occurring fungi in soil is to be applied to roots of bare plants before planting and backfilling to stimulate plant growth and accelerate root development;
- Prior to planting, ensure ground is well-broken and free draining using an auger. Soil ameliorants/conditioners to BSI PAS 100 – Compost Specification. Use a slow-release fertilizer (e.g. Scotts UK Professional ‘Enmag’, or similar) at a rate of 70g/m² for shrub planting, and up to 140g/m² for tree planting;
- Removal of any vandalised, unhealthy or dead specimens as soon as possible and replacement with trees of the same size to those adjacent, during next available planting season;
- Inspection, adjustment and maintenance of anchors, stakes and ties, spiral guards, removal of items that have been attached to trees and re-firming of trees after strong winds, frost heave or other disturbances; and
- Pruning as necessary to remove suckers and dead, dying or diseased wood and to achieve natural shape, healthy growth and favour a single leader (except for multi-stem trees, where several leaders will be favoured).

Species-rich Hedgerows

- 5.17 All new native hedgerows will be planted with appropriate native species as detailed within the soft landscape proposals to create species-rich features. This will include species such as spindle (*Euonymus europaeus*), elder, holly (*Ilex aquifolium*) and yew (*Taxus baccata*), which will provide a range of foraging opportunities throughout the year and therefore enhance opportunities for small mammals, birds and invertebrates. New hedgerow planting will also provide new linear features providing commuting and refuge features connected to existing hedgerows. Where feasible, plants of a local provenance will be utilised.
- 5.18 To ensure successful establishment of newly planted hedges so that they can be suitably maintained for amenity and ecological value, the following maintenance operations will need to be adhered to:
- All new planting to take place over the winter period (October–March). Newly planted specimens will be protected from animal damage by the use of rabbit-proof fencing, netting or individual tree guards;
 - Control and removal of weeds from hedge trenches. The use of herbicides on native hedgerows is not recommended;
 - Watering to ensure moisture levels are maintained appropriate for optimum growth during establishment period only;
 - Application of a slow-release fertiliser to ensure soil fertility is maintained;
 - Top up of mulch to planting areas;

- Remove any vandalised, unhealthy or dead specimens as soon as possible and replace with the same size to those adjacent, during next available planting season;
- Removal of litter;
- Pruning and re-shape hedge species to promote good growth and compact form, removing any dead and dying wood. Restock as necessary to fill gaps;
- Inspection for pests and diseases with remedial action taken swiftly; and
- Once established, new native hedgerows will be managed the same as the existing hedgerows.

Species-rich Grassland

- 5.19 New species-rich grassland will be created where there is no existing grassland habitat to enhance, or where existing grassland will be temporarily lost during construction. These areas will be seeded with a species-rich wildflower grassland mix (Emorsgate EM2, or similar). This will create a botanically diverse sward of value to a range of invertebrates and in turn enhancing prey opportunities for birds, bats and reptiles.
- 5.20 Prior to seeding wildflower, grassland areas will be cleared of all weeds and ploughed or dug. The area will then be harrowed or raked to produce a medium tilth and rolled to produce a level firm surface.
- 5.21 Seeding should take place during autumn or spring months with average climatic conditions for the time of year. The seed must be surface sown and firmed in with a roll, or by treading, to give good soil/seed contact.
- 5.22 During the first year of establishment, perennial weeds within areas of species-rich wildflower or wetland grassland will be removed through repeated cutting, hand-pulling or spot-spraying. This will be undertaken to promote establishment as follows:
- Mowing will be carried out regularly throughout the first year of establishment to encourage basal growth and reduce weed competition. Sward heights will not be reduced to less than 100mm height to avoid impacts on any fauna;
 - Mowing may be undertaken using an appropriate mechanical mower or using a brushcutter/trimmer where access for larger machinery is not possible;
 - Areas of grassland with bulbs will be left un-mown in early spring. The cut will be made when the bulbs have died down (approximately six weeks after flowering). After this, the management will revert to that of the surrounding grassland; and
 - Cut material will be removed and disposed of away from the grassland areas, e.g. baled as hay or sent for composting. Ideally material will be cut and left on the ground for two to three days to allow seed and invertebrates to drop out, but it may be necessary to use a mower or collector for practical reasons.

- 5.23 Weed and scrub control by manual or chemical means will be undertaken as required, so as to prevent pernicious perennial weed species from becoming established. During the early developmental stages of the grassland sward, some ‘undesirable’ broadleaved species are to be expected and should become less dominant as the communities become established and stabilised. Control methods will comprise hand-pulling or spot treatment with a suitable approved selective herbicide, as appropriate; timing will be dependent on the affected species. Control of any invasive species will be carried out in accordance with the advice of a specialist contractor.

Wetland Habitats

- 5.24 The new attenuation basin, in the south-western area of POS, will comprise seasonally wet grassland with a deepened section designed to hold permanent open water.
- 5.25 The attenuation basin will be seeded with a meadow mixture for seasonally wet soils (Emorsgate EM8, or similar) with patches of marginal plug planting to enhance botanical diversity further. White willow (*Salix alba*) and alder (*Alnus glutinosa*) will be planted at the bank tops. This habitat creation will significantly enhance the wetland habitat on-site and provide opportunities for a variety of invertebrates.
- 5.26 Thereafter, the attenuation basin will be managed as prescribed above in relation to the retained grassland and new wildflower grassland.

Bat and Bird Boxes

- 5.27 To enhance opportunities for roosting bats and nesting birds within the Site, six bat boxes and six bird boxes will be installed in retained trees, as set out in **Tables EDP 5.1** and **5.2** and illustrated on **Plan EDP 5**. Should the specified make/model not be available at the time of implementation, an alternative but similar specification will be used.

Table EDP 5.1: Proposed Bat Boxes

Quantity	Make and Model	Attributes	Tree No. (ref. AMS)
2 no.	Schwegler 2F	Suitable for summer use by a wide variety of species.	G87 (east) and T44
2 no.	Schwegler 2FN	Suitable for woodland species.	T73 and T48
2 no.	Schwegler 1FF	Colonial bats can use the box as a roost or nursery.	G46 (east) and T56

- 5.28 Bat boxes will be installed in accordance with manufacturer’s specifications, on a south-east/south-west facing aspect where possible and at heights 4–6m above ground, avoiding features that would obstruct access for bats and away from sources of artificial lighting.

Table EDP 5.2: Proposed Bird Boxes

Quantity	Make & Model	Attributes	Tree No. (ref. AMS)
3 no.	Schwegler 1B (26mm hole)	Suitable for blue tit (<i>Cyanistes caeruleus</i>), marsh tit (<i>Poecile palustris</i>), coal tit (<i>Periparus ater</i>) and crested tit (<i>Lophophanes cristatus</i>).	T2; T26; and G53 (west)
3 no.	Schwegler 1B (32mm hole)	Suitable for great tit (<i>Parus major</i>), redstart (<i>Phoenicurus phoenicurus</i>), nuthatch (<i>Sitta Europaea</i>), collared flycatcher (<i>Ficedula albicollis</i>), pied flycatcher (<i>Ficedula hypoleuca</i>), wryneck (<i>Jynx Torquilla</i>), tree sparrow (<i>Passer montanus</i>) and house sparrow (<i>Passer domesticus</i>).	G87 (west); T24; and T49

5.29 Bird boxes will be installed in accordance with manufacturer's specifications, avoiding south-facing aspects (to be protected from strong wind, rain and sunlight), and heights of 3–6m above ground.

Reptile Refugia/Hibernacula

5.30 At least two refugia (or hibernacula) will be created within areas of the POS at lowest risk of disturbance (see **Plan EDP 5** for indicative locations). These will be created using a proportion of the arisings from woody vegetation clearance to form log and brash piles, with such features located within retained and enhanced grassland areas to benefit grass snake as well as other common reptile species, amphibians and small mammals.

5.31 The principles of the design of these features are as follows:

- To be created and supplemented in the long-term using materials resulting from tree felling/pruning operations elsewhere on-site;
- Finished size to be approximately 2m long, by 2m wide, by 0.5m high;
- To contain a mixture of log sizes and shapes with some small-diameter material present, smaller material can be secured into the ground for safety reasons where necessary. Inert, clean fill (hardcore, brick rubble, etc.) can also be used; and
- The refugia should be capped with topsoil and turf covering (for amphibians and reptiles) and two left uncapped (for hedgehog (*Erinaceus europaeus*)). Where refugia are capped, the margins must have the fill exposed to allow access by species.

Section 6

Habitat Management

- 6.1 This section outlines the management and maintenance measures required in order for the proposed habitats to establish and thrive in the first 10 years post construction. Responsibility for management of all retained and newly planted areas rests with the Developer. Management of the Site will continue for no less than 30 years, with the management prescriptions reviewed every 5 years and altered as required.

YEARS 1–5

General Measures

- 6.2 Soil debris and arisings should be swept from adjacent hard surfaces after each maintenance operation. All extraneous rubbish not arising from the contract works should be collected and recycled (where feasible) or else removed from the Site at each maintenance visit.
- 6.3 Watering should be undertaken as necessary by the Developer to ensure the establishment and continued thriving of all planted areas. Watering should be to the full depth of the topsoil. If supply is restricted by emergency legislation, watering should not be carried out unless instructed to do so.
- 6.4 All areas where plants or trees have failed to thrive (through death, damage or disease) should be identified and plants should be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season, as frequently as necessary. The advice of the project landscape architect should be sought wherever possible. Any variation of this should only occur upon consent by the Council.
- 6.5 Spot weed control of all broad-leaved and injurious weed species listed in the Weeds Act 1959 should be undertaken using a suitable non-residual herbicide as and when required annually. The specification and use of herbicides or pesticides, including their use in proximity to water bodies, to comply with all contemporary Regulations, British Standards and Codes of Practice.
- 6.6 Bark mulch on all planted areas is to be topped-up to the levels set out in this document, at least once in spring, with a second application in autumn as required.
- 6.7 Any damage to hard or soft landscape areas arising from the contractor's work is to be repaired at the contractor's own expense.
- 6.8 Soil debris and arisings should be swept from adjacent hard surfaces after each maintenance operation. All extraneous rubbish not arising from the contract works should be collected and recycled (where feasible) or else removed from site at each maintenance visit.

Existing Grassland

- 6.9 After seeding and Year 1 of establishment detailed in **Section 5**, existing enhanced grassland will be managed through a traditional meadow management regime to enhance species diversity as follows:
- An annual cut will be undertaken in late summer (mid-August–September) to a height of 120–150mm to allow plants to flower and set seed prior to cutting. Arisings will remain *in-situ* for 1–5 days to release seeds prior to being collected and either removed from site or used to create compost heaps within undisturbed areas of the Site;
 - The grassland will then be maintained to 50mm by mowing through late autumn, early winter and early spring (March), as required. As before, arisings will be collected and added to the compost heap/removed. The grassland will be left uncut during the summer;
 - Scrub encroachment will be controlled through cutting; and
 - Worn or damaged areas are to be repaired by over seeding into a prepared seed bed at the next maintenance visit, dependant on seasonal limitations and subject to suitable weather and ground conditions in accordance with best practice.

Tree and Shrub Planting

- 6.10 All newly planted tree and shrub planting will be managed to ensure the stock establishes and thrives in accordance with the detailed landscape scheme.
- 6.11 Inspections of new tree and shrub planting should be carried out annually for a period of five years from the first spring following planting to ensure the adequate establishment of all plants, identify the presence of any undesirable species and disease and to determine whether remedial action is required.
- 6.12 The condition of all stakes, ties and guards should be checked by the Developer/Management Company during each monthly visit and all broken items should be replaced and items regularly adjusted to accommodate plant growth and prevent rubbing. Any bark damage should be cut back neatly with a sharp knife. All plants are to be maintained upright and the ground at the base to be firmed up. All shelters should be hand weeded.
- 6.13 All planting will be maintained in such a way as to exclude aggressively competitive plants from around the base of each plant for a period of three years from the end of the season in which the stock was planted.
- 6.14 Weeding will be undertaken during the main growth period (April to June, inclusive) for three years, achieving and maintaining a weed-free area around each tree of a minimum of 1m radius. Weed control will be by strimming (using appropriate guards to avoid damage to the plant). Care will be taken to avoid damage to trees themselves.

- 6.15 Watering should be undertaken as necessary by the Developer to ensure the establishment and thriving of all planted areas. Watering should be to the full depth of the topsoil. If supply is restricted by emergency legislation watering should not be carried out unless instructed to do so.
- 6.16 A weed-free area will be maintained around each shrub or tree, of a minimum of 1m in diameter. Weed control should ensure that weed cover is less than 5% and that no weeds exceed 1m in height.
- 6.17 All areas where newly planted plants have failed to thrive (through death, damage or disease) will be identified and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season, as frequently as necessary. The advice of a Chartered Landscape Architect or suitably qualified arboriculturist will be sought wherever necessary.
- 6.18 All plants should be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers should be removed. Overhanging branches should be pruned to ensure that growth is prevented from encroaching onto paths, signs, sightlines and road lighting. All pruning should be undertaken in accordance with BS 7370-4. Pruning should be undertaken annually, or as appropriate to each species, between September and February inclusive to avoid the main bird breeding season.
- 6.19 The requirement for selective thinning of all newly planted trees/shrubs should be assessed every three years and undertaken as necessary, to ensure that overcrowding is reduced with increasing species maturity; that slower growing climax species are not outcompeted; and that diseased and dying plants are removed. Thinning is to be undertaken between September and February inclusive to avoid the main bird breeding season.
- 6.20 An assessment of the condition of all retained and newly planted tree, shrub and scrub plants will be made by a qualified and experienced arboriculturist annually for a period of five years from the first spring following planting to ensure the adequate establishment of all plants, identify the presence of any undesirable species and disease and to determine whether remedial action is required, including replacement planting for any lost/damaged specimens and additional management prescriptions necessary to ensure its successful development. Additional monitoring will also be necessary during prolonged dry periods when new planting has a greater chance of failure. Thereafter, an assessment will be undertaken every two years.

Mature Trees and Scrub

- 6.21 To ensure the long-term viability of all retained mature trees and scrub on-site, an annual inspection should be undertaken by an Arboricultural Association approved arboriculturist contractor or professional arboriculturist, with all recommendations implemented in full within three months of initial inspection. Where damage is identified, consideration should be given to the inclusion of protective fencing. Dead/dying/damaged limbs should be removed only if they pose a hazard to public health and safety. Once removed, the limb, as well as any dead wood, should be left at the base of the tree to provide a refugia and food resource for invertebrates.

- 6.22 Where remedial work to mature trees is required, an update ground-level inspection by a suitably qualified ecologist will be undertaken to determine its current potential to support roosting bats. Where remedial works proposed are considered likely to impact upon potential bat roosting features, a detailed aerial inspection will be undertaken to further inspect suitable roosting features to be impacted for the presence of bats, prior to any commencement of tree works. Aerial inspections will be undertaken by an ecologist or arboricultural contractor with a Natural England bat survey licence, or by a contractor with experience of working with bats under the supervision of a Natural England bat survey licence holder. Thereafter, works will only progress in accordance with the advice of a Natural England bat licence holder.
- 6.23 All tree works are to be undertaken in accordance with *BS 3998:2010 Tree Work*. Retained trees will be allowed to develop naturally where feasible, subject to Health and Safety considerations.

Native Hedgerows

- 6.24 Monitoring and maintenance of retained and newly planted hedgerows will be undertaken in accordance with the above prescriptions for shrubs and trees. New growth of tree whips planted in new native hedgerows should be topped by approximately 30% on all sides, on an annual cycle up to the first three years after planting to encourage low lateral growth of branches, thereby establishing a thick hedgerow at the base. In subsequent years, lateral branches and shoots should be trimmed to an A-shaped cross-section, with greater width at the base of the hedgerow.
- 6.25 Existing mature hedgerows, and new hedgerows once established, will be maintained at a height of 3m and be cut to an A-shape on a three-year rotation in January or February. No more than one third, or one side, of a hedgerow will be cut in any one year to maintain refuge and foraging resources.
- 6.26 For hedgerows associated with formal open space, responsibility for management will remain with the Developer and/or appointed Managing Agent. In addition to the above, the hedgerows will be cut annually to maintain a maximum 1.2m height.

Species-rich Grassland

- 6.27 Areas of species-rich grassland planting will be subject to the following management regime to promote a structurally and botanically diverse grassland sward.
- 6.28 Establishment in Year one is detailed in **Section 5**. In second and subsequent years following initial establishment, areas of new species-rich grassland will be managed as per the retained and enhanced grassland, comprising a summer hay cut in mid-August, followed by a second cut at the end of the growing season (October/November) to no less than circa 100mm heights. Cutting will avoid the months of May to early July, to enable the majority of species to have flowered and set seed. Arisings will be left to drop seed for 2–3 days and then be removed. Any scrub encroachment will be closely controlled.
- 6.29 More generally, an assessment of all informal areas of grassland, meadow and bulb planting on-site will be undertaken at Years 1, 3 and 5 from the first spring following planting

by a landscape architect to ensure the adequate establishment of all plants, identify the presence of any undesirable species and disease and to determine whether remedial action is required, including replacement seeding/bulb planting for any lost/damaged specimens and additional management prescriptions necessary to ensure successful development. Additional monitoring will also be necessary during prolonged dry periods when new planting has a greater chance of failure. Thereafter, management measures will require subsequent assessment at five yearly intervals.

Wetland Habitats

- 6.30 The new attenuation basin and existing marshy grassland will be managed as per the species-rich grassland once established with a later summer hay cut once established. This will encourage the establishment of a botanically diverse sward whilst maintaining hydrological functionality within the attenuation basin.

YEARS 6–10

- 6.31 The above management prescriptions will continue following establishment to maintain the structure and botanical diversity of habitats on the Site. In addition, the following general measures will be undertaken:
- Annually review the need to selectively thin overcrowded amenity beds or hard prune species to maintain design intent. Re-stock areas of failed, poorly established or thinned scrub with the same species;
 - Review all previously existing trees and hedgerows for future longevity and restock accordingly with same species to ensure continuity of the landscape features;
 - Annually review the natural succession of the wildflower and wet grassland areas to ensure no invasive or pernicious weeds have appeared in the area;
 - To ensure the long-term viability of all retained and newly planted trees on-site, regular inspections should be undertaken, with all recommended tree surgery works implemented in full within three months of the inspection;
 - Formative pruning of all shrubs should be undertaken as necessary to sustain healthy, bushy growth, and to ensure no encroachment into adjacent habitats. If any retained tree is cut down, uprooted, destroyed or dies, another tree shall be planted in the same place in the next planting season following the removal of that tree; and
 - From Year 5 after planting, or once plants are established, all tree/shrub/climber stakes, ties, supports and shelters can be removed and disposed of off-site.

YEARS 10+

- 6.32 The above paragraphs set out broad management and maintenance tasks for the long-term care and protection of ecological and landscape features on-site. Given the dynamic nature of habitats and their ability to change over time, it is both inappropriate and impractical to

set out a fixed and prescriptive set of management tasks to be implemented regardless of progress. A key element of the plan is flexibility.

- 6.33 After Year 10, this document will be reviewed and any changes to management prescriptions will be documented within an updated management plan if necessary. However, the recommendations for management detailed above should be broadly adopted during the ongoing management of the Site.

FAUNAL SPECIFIC FEATURES

Bird and Bat Boxes

- 6.34 Bird and bat boxes will be checked once a year for five years. In the case of the latter, boxes will need to be inspected by a bat licensed ecologist, with damaged boxes repaired/replaced where necessary. The maintenance and repair of bat boxes installed across the Site will remain the responsibility of the Developer, or any appointed Management Company. Five-yearly replacement checks will continue long-term.

Reptile Refugia/Hibernacula

- 6.35 The reptile refugia/hibernacula will be checked every five years with any damage to these features repaired/replaced where necessary. The maintenance and repair of the additional ecology features installed across the Site will remain the responsibility of the Developer, or any appointed Management Company. Five-yearly replacement checks will continue long-term.

Section 7 Biodiversity Net Gain

- 7.1 As required by the planning obligation described in **Section 1**, an updated calculation of the net gain in habitat units and linear units achieved by the proposed development has been undertaken using Environment Bank's Biodiversity Impact Calculator (v2, May 2019). A copy of the metric accompanies this document (ref. edp8343_r003).
- 7.2 The assessment has been undertaken based on the existing habitat information provided within the Ecological Appraisal and the updated walkover survey completed in 2023. The post-development information is based on the detailed development layout and landscaping proposals prepared for the Reserved Matters Application. The baseline and post-development habitat types are illustrated on **Plans EDP 6** and **7**, respectively.
- 7.3 The metric demonstrates that the proposed development will provide a significant net gain in biodiversity for both area and linear habitats, as summarised in **Table EDP 7.1**. Using the Environment Bank Biodiversity Impact Calculator there is a net gain in habitat units of +13.54 habitat units (net biodiversity gain of +51.87%) and a net gain of linear units of +2.74 units (net biodiversity gain of +13.30%).

Table EDP 7.1: Biodiversity Impact Assessment Summary

Biodiversity Value	Area Calculations	Linear Calculations
Existing Site	26.11	19.41
Gross Losses	-17.07	-0.87
On-site Compensation	30.62	3.61
Net Balance (units)	+13.54	+2.74
Net Balance (%)	+51.87	+14.09

- 7.4 As detailed above the detailed scheme design and landscape proposals meet the requirement, set out within the S106 agreement, to achieve a minimum net gain of 50% habitat units and 10% linear units.

Section 8

Monitoring and Timetable of Works

MONITORING

- 8.1 The aim of monitoring activities carried out post-development is to address any issues relating to biophysical changes to habitats as a result of the occupation of the new development. Monitoring will also evaluate the effectiveness of any specific mitigation measures (such as bird and bat boxes), as well as the management and function of retained and newly created habitats as identified in this BLMP.
- 8.2 It is anticipated that monitoring visits by suitably experienced operatives will be carried out, with input from a suitably qualified ecologist, as per **Table EDP 8.1**. Following completion of monitoring activities, an annual monitoring report will be produced and submitted to the Council with any necessary changes incorporated into a revised BLMP.

Table EDP 8.1: Summary Table of Monitoring Actions

Feature	Monitoring Actions	Frequency
Retained and enhanced grassland, new species-rich grassland, wet grassland, and amenity grassland.	Check species composition, suitability of management activities, presence of invasive, non-native species, litter and damage caused by recreational activity.	Annually from Year 2 following establishment until Year 5 and then five-year intervals.
Tree, hedgerow and shrub planting.	Species composition, suitability of management activities, presence of littering, erosion or damage, presence of disease or pests and damage caused by recreational activity.	Annually from Year 2 following establishment until Year 5 and then five-year intervals.
Bird and bat boxes, and reptile hibernacula.	Presence and condition of boxes (tree mounted only) and hibernacula.	At the end of Year 5 of first development phase then at five yearly intervals.
All	Completion of remedial activities following monitoring.	As recommended following monitoring visits.
All	Results of monitoring surveys and confirmation of completed remedial activities. Monitoring report submitted to Council.	Annually, once all monitoring actions for the year are complete.
All	Review of this BLMP.	At the end of Year 5 then at five yearly intervals.

REMEDIAL MEASURES

- 8.3 Any remedial measures identified during monitoring would need to be implemented within the recommended timeframe following completion of the monitoring visit, to be advised by a suitably qualified ecologist or other relevant professional carrying out the monitoring.
- 8.4 During the first 12 months following completion of habitat creation works the responsibility for undertaking remedial works if required will fall upon the Landscaping Contractor. Thereafter remedial measures will be the responsibility of the Developer supported by their Principal Contactor, until the Site is signed over to the Management Company, appointed by the Developer, who will then assume responsibilities for the remedial works.

TIMETABLE OF WORKS

- 8.5 A Public Open Space Phasing Plan, showing the proposed sequence for implementation of the soft landscaping works within the POS, is provided within **Appendix EDP 2**. Phase 1 of the POS will be provided prior to the 42nd occupation, Phase 2 prior to the 86th occupation, and Phase 3 prior to occupation of the 105th dwelling (approximately 85% occupation). In addition, the equipped play areas will be usable by at least 50% occupation.
- 8.6 The management prescriptions will be checked during the monitoring surveys and the BLMP document amended if required.
- 8.7 The optimal timings of the actions required for the creation, establishment and long-term management of newly created and retained habitats are provided in **Table EDP 8.2**.

Table EDP 8.2: Timetable of Key Management and Monitoring Activities

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Species-rich Grassland and Wet Grassland Year 1													
Cutting of new species-rich grassland and wet grassland (establishment year).	Regularly during establishment (Year one)												
Weed Control of new grassland (establishment year).	Monthly during establishment (as required)												
Species-rich Grassland and Wet Grassland After Establishment													
Late summer hay cut of species-rich grassland once established and retained grassland.	Annually in mid-August and October/November												
Monitoring.	Annual basis for the first five years and then five-year intervals thereafter.												
Scrub, Trees and Hedgerows													
Trimming and removal of dead material.	As appropriate												
Cutting to 3m of existing hedgerows and new hedgerows after establishment.	Rotational basis, one side every three years.												
Re-firming, checking tree guards, supports and shelters.	As required												

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monitoring.	Annually												
Species Mitigation and Monitoring													
Check bird and bat boxes from ground and replace where necessary.	Every five years												
Check reptile hibernacula and replace materials if necessary.	Every five years												

Appendix EDP 1

Example Habitat Protection Signage



HABITAT PROTECTION AREA!

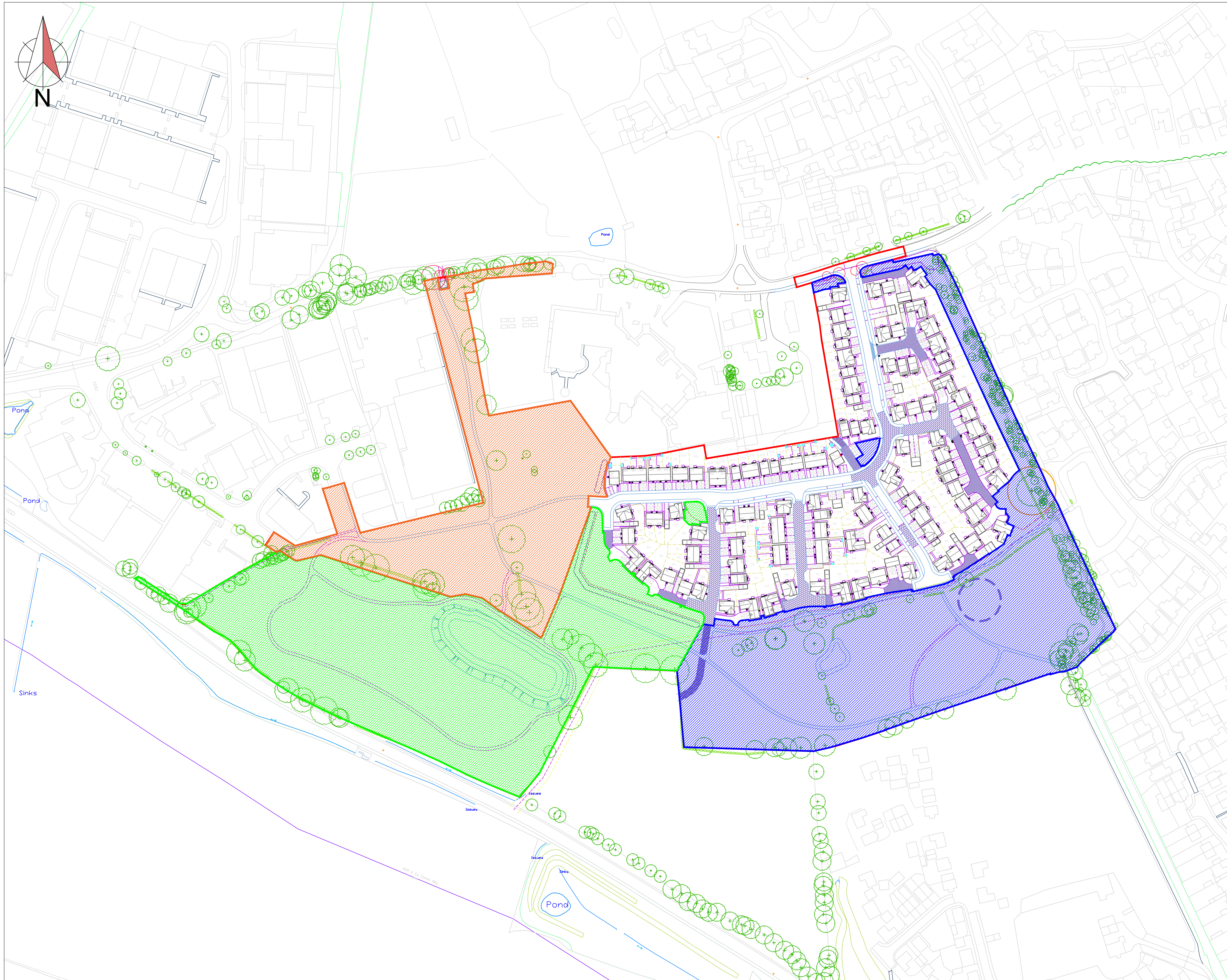
THIS FENCING MUST BE MAINTAINED
IN ACCORDANCE WITH THE APPROVED
PLANS AND DOCUMENTS FOR THIS
DEVELOPMENT.

IF ANY DAMAGE TO OR BREACH OF THE
FENCING OCCURS PLEASE CALL:

01285 740427

Appendix EDP 2

Public Open Space Phasing Plan



KEY:

Development
Red Line
Boundary

Phase 1

Phase 2

Phase 3

Rev.	Description	Date
 CHARLES CHURCH Charles Church (NM), Davidson House, Meridian East, Meridian Business Park, Leicester, LE19 1WZ Tel: 0116 2894520 Fax: 0116 2815601		
Development Sketchley Grange Burbage		
Drawing Title Public Open Space Phasing Plan		
Date 03.24	Scale 1:1000 @ A1	Drawn JM
Dwg. Ref. 234_POSPP_001		Rev.

Plans

Plan EDP 1: Extended Phase 1 Habitat Plan
(edp8343_d004a 01 March 2024 JFr/TWi)

Plan EDP 2: Trees of Suitability for Roosting Bats
(edp8343_d005a 01 March 2024 JFr/TWi)

Plan EDP 3: Badger Survey 2023
(edp8343_d002a 01 March 2024 GYo/OHo)

Plan EDP 4: Ecological Protection Zones
(edp8343_d009a 01 March 2024 GYo/LNe)

Plan EDP 5: Faunal-specific Habitat Features
(edp8343_d006a 01 March 2024 JFr/TWi)

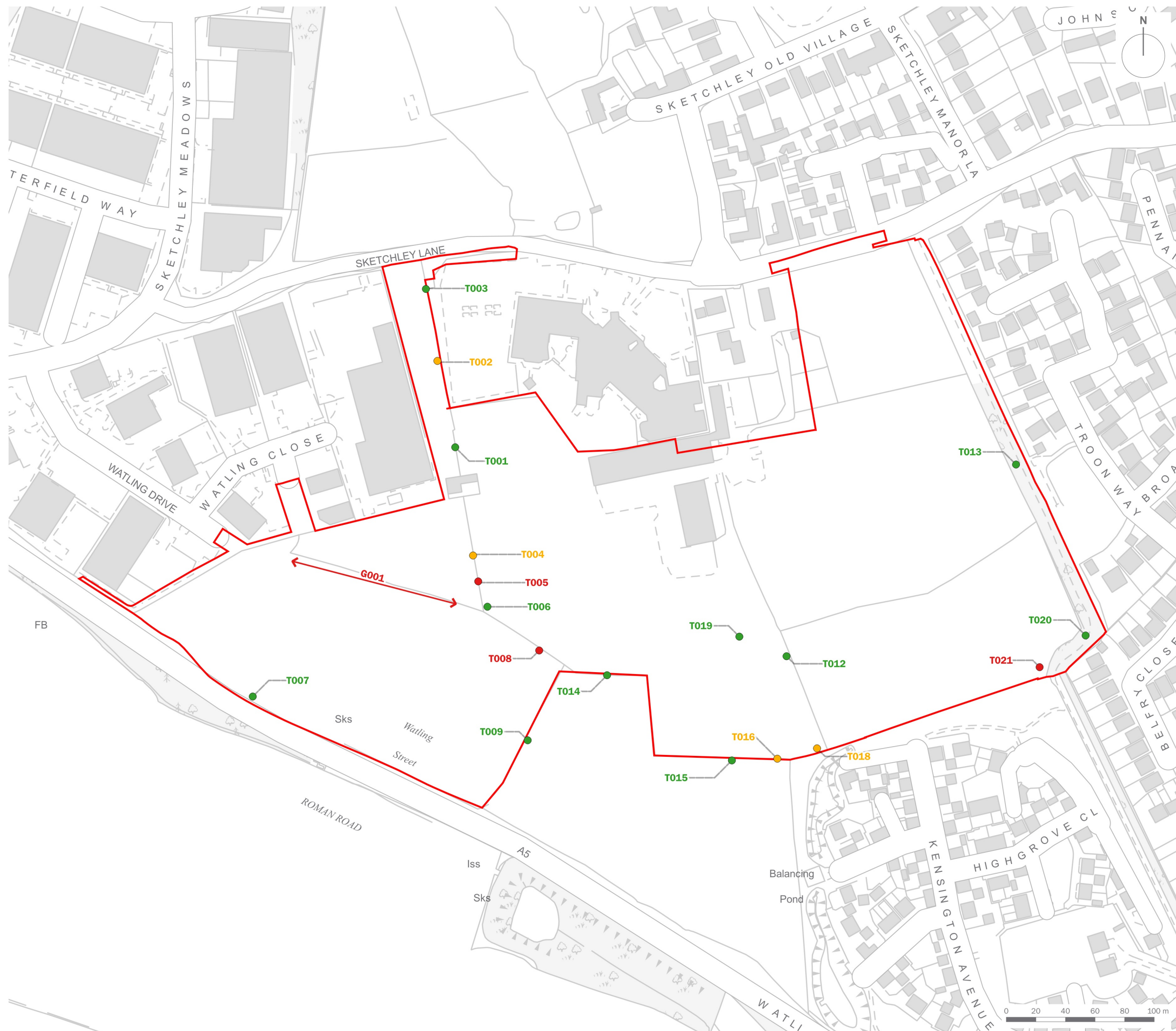
Plan EDP 6: Baseline Habitats for Biodiversity Net Gain Assessment
(edp8343_d007a 01 March 2024 GYo/LNe)

Plan EDP 7: Post-development Habitats for Biodiversity Net Gain Assessment
(edp8343_d008a 01 March 2024 GYo/LNe)

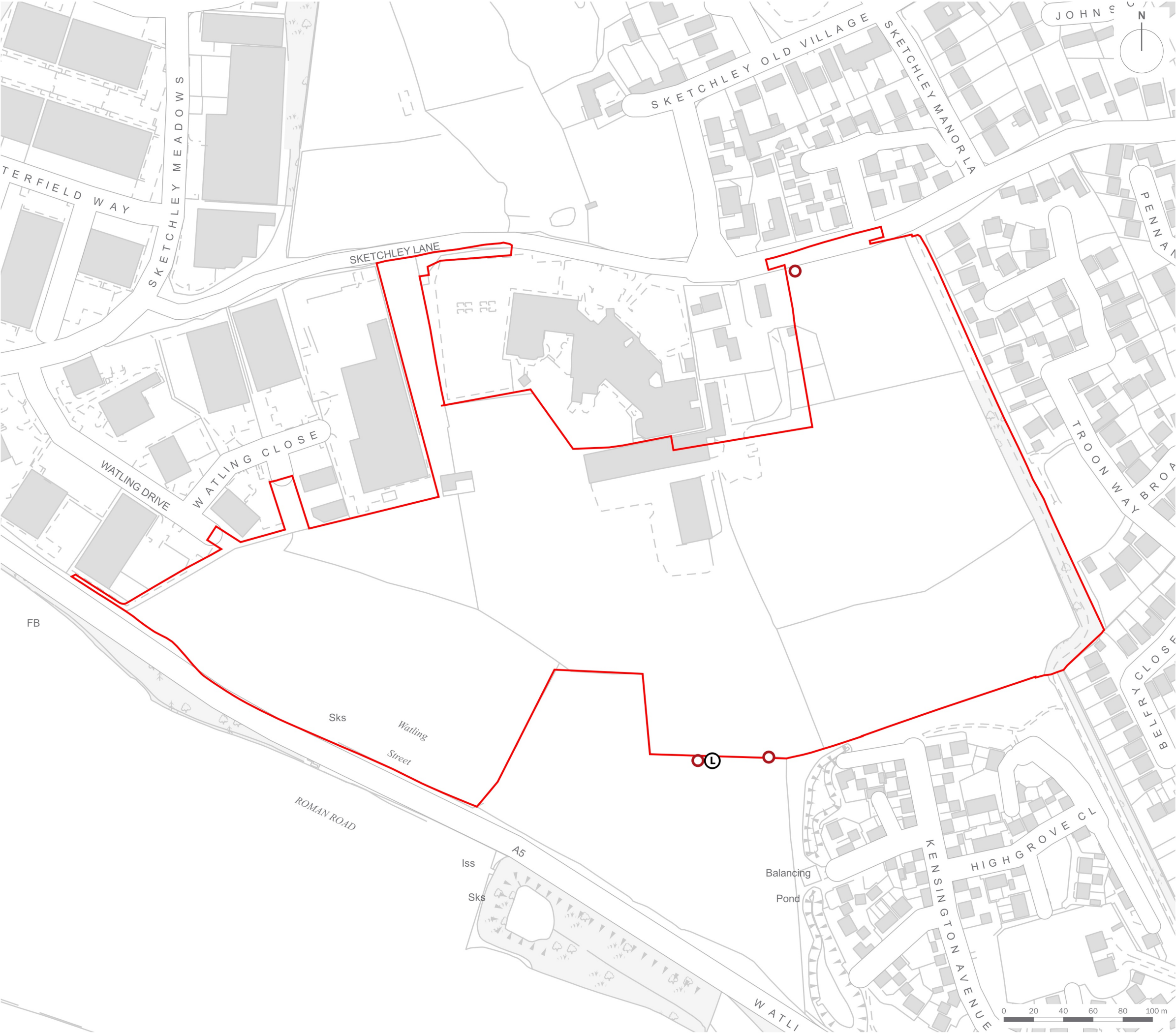


- Site Boundary
- I Improved Grassland
- SI Poor Semi-improved Grassland
- SI Semi-improved Neutral Grassland
- Dense Continuous Scrub
- Tall Ruderal
- Marsh/Marshy Grassland
- Bare Ground
- Buildings
- Hardstanding
- Line of Trees
- Intact Species-rich Hedgerow and Trees
- Intact Species-rich Hedgerow
- Intact Species-poor Hedgerow and Trees
- Intact Species-poor Hedgerow
- Defunct Species-rich Hedgerow and Trees
- Defunct Species-poor Hedgerow
- Watercourse
- Dry Watercourse
- Fence
- H1 Hedgerow ID
- Scattered Trees (Broadleaved)
- Scattered Scrub

client			
Persimmon Homes North Midlands			
project title			
Land off Sketchley Lane, Burbage, Hinckley			
drawing title			
Extended Phase 1 Habitat Plan			
date	01 MARCH 2024	drawn by	JFr
drawing number	edp8343_d004a	checked	TW
scale	1:2,500 @ A3	QA	RBa

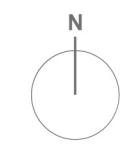


client



-  Site Boundary
-  Disused Badger Sett
-  Fresh Latrine

client			
Persimmon Homes North Midlands			
project title			
Land off Sketchley Lane, Burbage, Hinckley			
drawing title			
Badger Survey 2023			
date	01 MARCH 2024	drawn by	GYo
drawing number	edp8343_d002a	checked	OHo
scale	1:2,500 @ A3	QA	RBa



-  Site Boundary
-  Ecological Protection Zone

client			
Persimmon Homes North Midlands			
project title			
Land off Sketchley Lane, Burbage, Hinckley			
drawing title			
Ecological Protection Zones			
date	01 MARCH 2024	drawn by	GYo
drawing number	edp8343_d009a	checked	LNe
scale	1:2,500 @ A3	QA	RBa



Registered office: 01285 740427 - www.edp-uk.co.uk - info@edp-uk.co.uk





- Site Boundary
- Trees to Retained
- Trees to be Removed

Proposed Bat Boxes

- Schwegler 2F
- Schwegler 2FN
- Schwegler 1FF

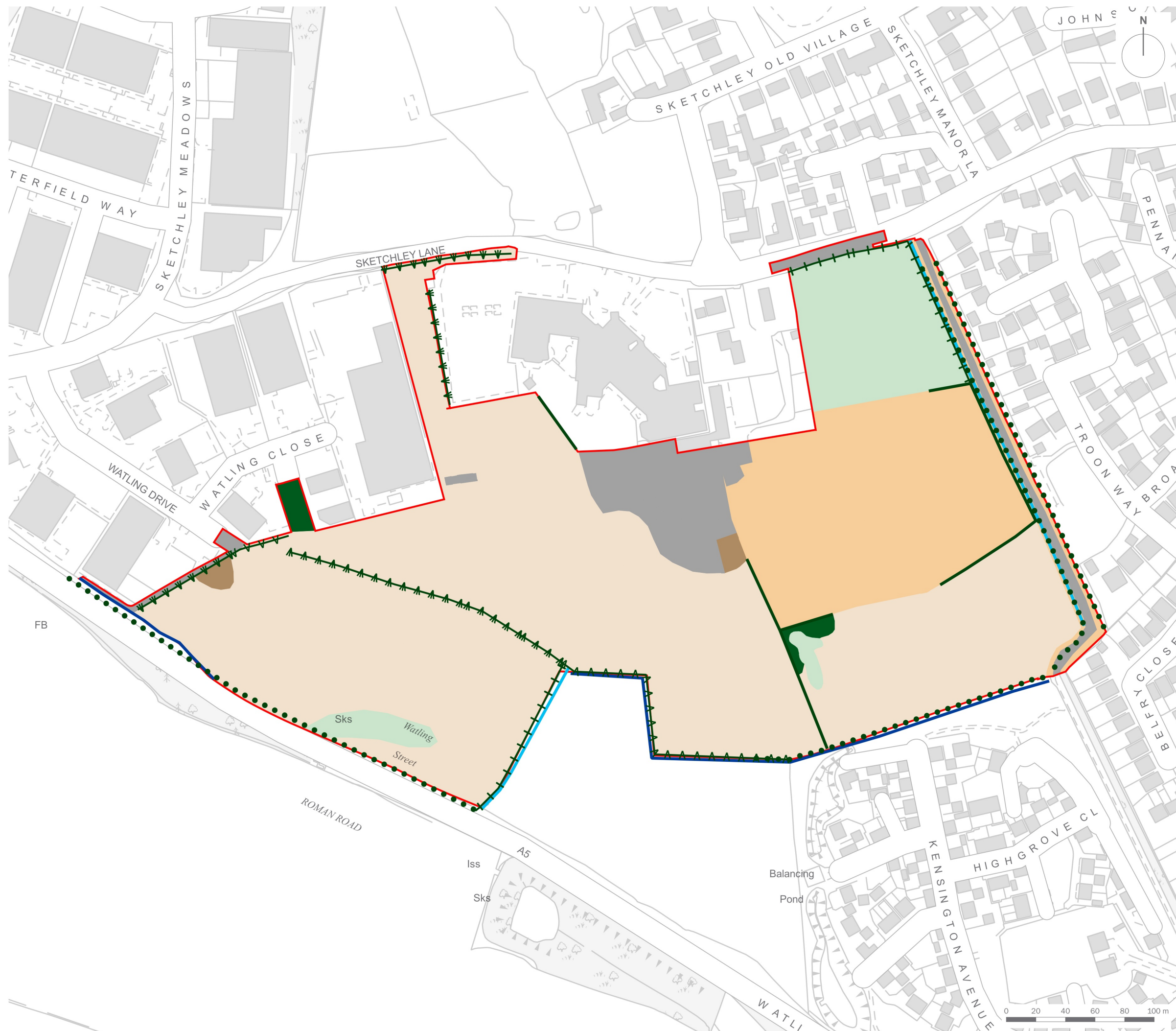
Proposed Bird Boxes

- Schwegler 1B (26mm hole)
- Schwegler 1B (32mm hole)

Proposed Reptile Habitat

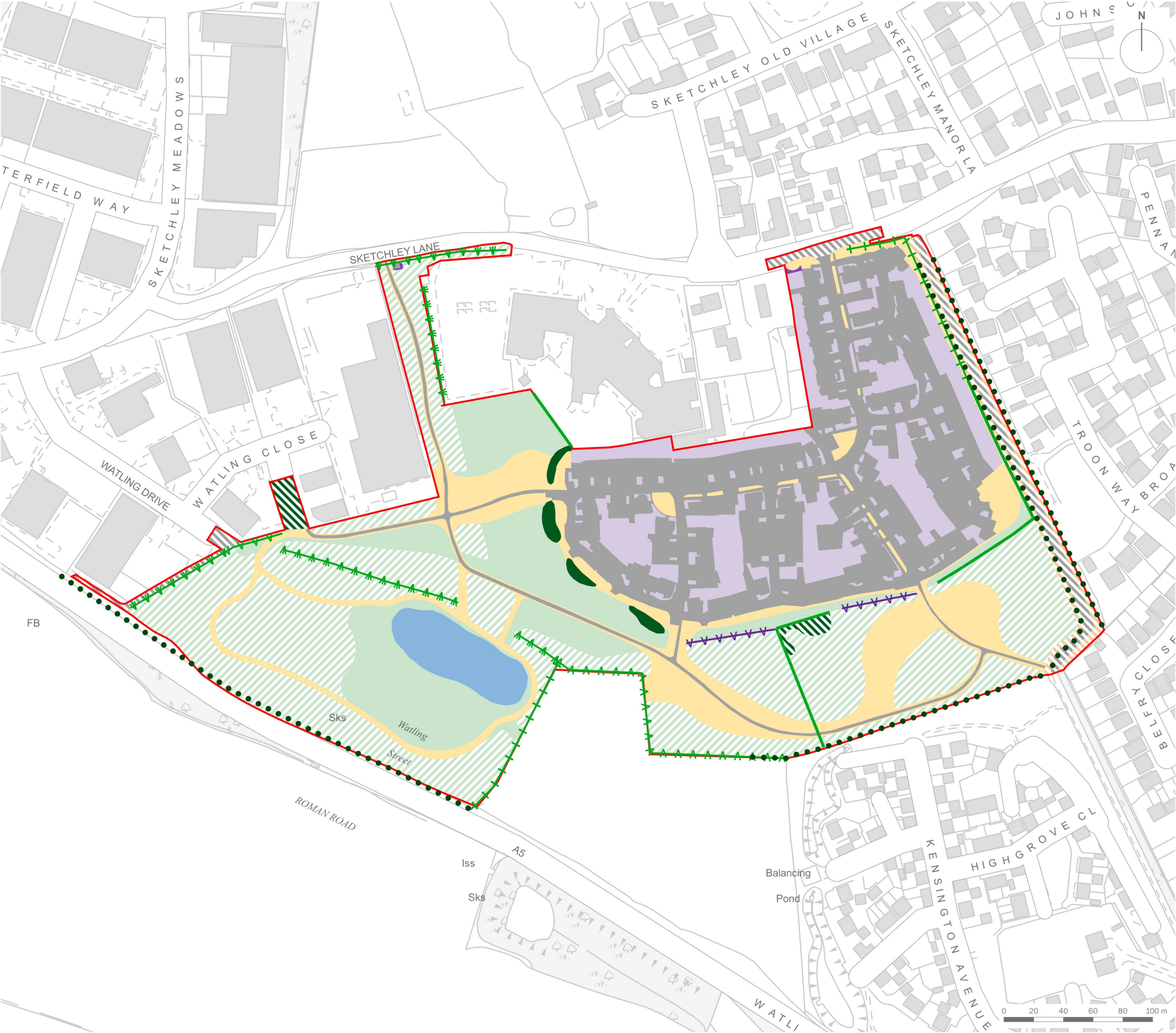
- Refugium/Hibernaculum

client	Persimmon Homes North Midlands			
project title	Land off Sketchley Lane, Burbage, Hinckley			
drawing title	Faunal-specific Habitat Features			
date	01 MARCH 2024	drawn by	JFr	
drawing number	edp8343_d006a	checked	TWI	
scale	1:2,500 @ A3	QA	RBa	



- | | |
|---|---|
|  | Site Boundary |
|  | Scrub |
|  | Other Neutral Grassland |
|  | Improved Grassland |
|  | Other Low Distinctiveness Grassland |
|  | Tall Ruderal |
|  | Buildings and Hardstanding |
|  | Line of Trees |
|  | Species-rich Native Hedgerow with Trees |
|  | Species-rich Native Hedgerow |
|  | Native Hedgerow with Trees |
|  | Native Hedgerow |
|  | Ditches |
|  | Other Rivers and Streams |





- Site Boundary
- Retained Habitats

Scrub

Other Low Distinctiveness Grassland

Buildings and Hardstanding
- Line of Trees
- Enhanced Habitats

Other Neutral Grassland

Species-rich Native Hedgerow with Trees

Species-rich Native Hedgerow

Native Hedgerow with Trees

Native Hedgerow
- Created Habitats

Scrub

Other Neutral Grassland

Amenity Grassland

Gardens and Amenity Areas

Introduced Shrub

Sustainable Drainage System

Buildings and Hardstanding

Species-rich Native Hedgerow

client	Persimmon Homes North Midlands		
project title	Land off Sketchley Lane, Burbage, Hinckley		
drawing title	Post-development Habitats for Biodiversity Net Gain Assessment		
date	01 MARCH 2024	drawn by	GYo
drawing number	edp8343_d008a	checked	LNe
scale	1:2,500 @ A3	QA	RBa



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**URBAN
DESIGN
GROUP** REGISTERED
PRACTICE



**IEMA
CORPORATE
PARTNER**

**Landscape
Institute**
Registered practice