# Landscape and Habitat Management Plan



Himley Village, Bicester 12<sup>th</sup> June 2024



Project No:	Report No.	Date	Revision		
15525	R06	12 <sup>th</sup> June 2024	А		
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### **Section 1: Introduction**

- 1.1. This Landscape and Habitat Management Plan (LHMP) has been prepared by Tyler Grange Group Ltd on behalf of Cala Homes in respect of Land at Himley Village, Oxfordshire, OX26 1RT, hereafter referred to as the 'site' The site is centred on National Grid Reference SP 55436 23155.
- 1.2. An outline planning application for the phased development of up to 1,700 residential dwellings (Class C3), flexible commercial floorspace (Classes A1, A2, A3, A4, A5, B1, C1 and D1), social and community facilities (Class D1), land to accommodate one energy centre and land to accommodate one new primary school (up to 2FE) (Class D1) was submitted to Cherwell District Council (Application Ref: 14/02121/OUT) in 2014.
- 1.3. The outline application was accompanied by an Environmental Statement (ES) which was submitted in 2014. Chapter 7 of the ES provides details of the ecological surveys completed by Hyder Consulting in 2010 and 2011, along with an update Phase 1 Habitat survey undertaken in 2014 by Waterman. This survey work included a background data search with records obtained from the Thames Valley Environmental Records Centre (TVERC), habitat features survey and hedgerow assessment, with specific surveys carries out for GCN *Triturus cristatus*, badger *Meles meles*, reptiles, breeding and overwintering birds, invertebrates, bat activity and roosts, dormice *Muscardinus avellanarius*, water vole *Arvicola amphibius* and otter *Lutra lutra*.
- 1.4. The outline planning permission was granted for the site in January 2020, subject to a number of conditions. Condition 29 of the planning permission states:

'No development shall commence on a phase until a Landscape & Habitat Management Plan (LHMP) for that phase detailing both management and monitoring proposals for green space (excluding building curtilages) has been submitted to and approved in writing by the Local Planning Authority. Thereafter the LHMP shall be implemented in accordance with the approved details.

Reason: To secure net biodiversity gain in accordance with Policies Bicester 1 and ESD10 of the Cherwell Local Plan 2011-2031 and Government guidance contained within the Eco Towns PPS and National Planning Policy Framework. This information is required prior to commencement of any development on the appropriate phase as it is fundamental to the acceptability of the scheme.'

- 1.5. The site is divided into phases, Phase 1 3, mixed use phase, care home phase, school phase and community and social use. This LHMP is in relation to Phase 1A and 1B only (see **Plans 15525/P03b & P15**).
- 1.6. The purpose of this LHMP is to provide details pursuant to Condition 29, and to ensure the protection and favourable management of retained and created habitats to maximise their benefit to wildlife and to provide continued opportunities for biodiversity. It has been produced to provide management objectives and maintenance schedules covering an initial five-year period, after which it will be continued for the longevity of the scheme.



- 1.7. The responsibility for ensuring works proceed in accordance with this LHMP will lie with the appointed contractor for the works. Overall control will be held by the contractor's site manager or a suitable delegate within the contractor's company.
- 1.8. This LHMP is set out as follows and has been prepared in accordance with British Standard for Biodiversity: BS 42020:2013:
  - Section 2 details the site description and evaluation of ecological features to be managed within the LHMP;
  - Section 3 describes the ecological and landscape management aims and objectives; and
  - Section 4 describes the management prescriptions to achieve objectives set out in Section 3, as well as setting out monitoring and possible remedial action, where necessary, and responsibilities for implementing the plan.



# Section 2: Site Description and Ecological Features

2.1. This section of the LHMP summarises the existing important ecological features within Phases 1A and 1B.

### Site Context

- 2.2. The 'site' is defined by the application red-line boundary (see Plan **15525/P03b**) comprising all phases. The site is located immediately to the west of Bicester in Oxfordshire, adjacent to the B4030, and is surrounded by arable land. The M40 is located to the west and Bicester is located to the east of the site.
- 2.3. Phase 1A comprises two small areas of land within the southern part of the wider site, adjacent to the B4030 and will form part of the access into the Phase 1B site (see Plan 15525/P15).
- 2.4. Phase 1B comprises the internal access roads and areas of open space that will define and link the subsequent Phase 2 developments (see Plan **15525/P10**).

### **Baseline Habitats**

- 2.5. Phase 1A comprises two lengths of hedgerow habitat, H9 and H10. H9 comprises a species-rich hedgerow with trees, and H10 is species rich. A small area of orchard habitat and modified grassland is also present where the access roads enter the site, as shown on Plan 15525/P15.
- 2.6. The majority of Phase 1B comprises modified grassland fields with a short sward, which is bound by a network of hedgerows (see Plan **15525/P10**). Two buildings (B1 and B2) are also located within the 1B boundary, along with an area of orchard and vegetated garden.
- 2.7. Habitats within the wider site boundary are dominated by arable fields which are subject to frequent management with minimal margins present and further short sward, modified grassland fields, bounded by hedgerows and dry ditches with a number of scattered trees present. A broadleaved woodland plantation runs along the eastern boundary of the wider site.
- 2.8. Three ponds are located within the wider site boundary (labelled P1-P3 on the Habitat Features plan **15525/P03b**).

### **Protected and Notable Species**

2.9. Protected and notable species surveys have been undertaken across the wider site in 2010, 2011, 2014 and 2023 to inform the outline and reserved matters planning applications. These have included surveys for great crested newt (GCN) *Triturus cristatus*, badger *Meles meles*, reptiles, breeding and overwintering birds, invertebrates, bats, dormice *Muscardinus avellanarius*, water vole *Arvicola amphibius* and otter *Lutra lutra*.



### **Amphibians**

2.10. A medium population was recorded within ponds P2 and P3 in 2011, however updated surveys undertaken in 2023 identified a small population within both ponds. Terrestrial habitat including arable fields and short sward modified grassland are considered to be largely unsuitable for GCN due to its intensive management. The hedgerows, scrub and woodland provide suitable terrestrial habitat for foraging and sheltering amphibians, including GCN. No GCN were recorded within pond P1.



### Bats

- 2.14. Bat activity and static surveys undertaken in 2010 recorded seven species/species groups of bats using the site for commuting and foraging including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, brown long-eared *Plecotus autitus*, noctule *Nyctalus noctule*, leisler's bat *N. leisleri*, serotine *Eptesicus serotinus* and myotis sp. Activity levels recorded during the surveys in 2010 were relatively low with most activity concentrated around the hedgerows and ponds throughout the site.
- 2.15. Dusk and dawn-re-entry surveys were also undertaken for a number of trees and buildings associated within the entire survey boundary. A common pipistrelle roost was confirmed within the farmhouse in 2011, which falls outside the boundary for all phases of development, including Phase 2. These buildings were originally within the survey boundary but have since been removed and will no longer be impacted as part of the development.
- 2.16. Two buildings, B1 and B2, are located within the Phase 1B boundary (see **Plan 15525/P10**) and are marked for demolition. Both buildings were considered to offer negligible suitability for roosting bats during the 2011 and 2014 surveys, however an update inspection of both buildings in February 2024 by Tyler Grange found evidence of roosting bats within B1.
- 2.17. Building B1 was considered to offer high potential for roosting bats and therefore requires emergence surveys to determine if the structure is being used by roosting bats and inform a licence application as necessary. Three emergence surveys of B1 are scheduled to commence from May 2024. Building B2 remains of negligible potential and no surveys are required.



Birds

- 2.18. Surveys for breeding birds were carried out in 2011. The species recorded include song thrush Turdus philomelos, dunnock Prunella modularis, house sparrow Passer domesticus, linnet Carduelis cannabina subsp. autochthonal cannabina, starling Sturnus vulgaris, common bullfinch Pyrrhula pyrrhula whitethroat Sylvia communis and marsh tit Poecile palustris.
- 2.19. In addition, wintering bird surveys were undertaken in 2011, and recorded flocks of yellowhammer *Emberiza citrinella*, redwing *Turdus iliacus* and fieldfare *Turdus pilaris*.
- 2.20. The bird assemblage recorded within the site includes some Birds of Conservation Concern and Cherwell Biodiversity Action Plan (BAP) Important Species, however the habitats on site are considered to be of low importance for these species.

Dormouse

2.21. Surveys for dormouse in 2011, comprising nest tube surveys and a nut search, recorded no evidence of dormouse within the site and no records of dormouse were returned by TVERC. As such, it was considered that dormouse are likely absent from the habitats within the site.

Invertebrates

2.22. The 2011 surveys concluded that the majority of habitats on the site were considered unlikely to support more than a common invertebrate assemblages, however individuals of brown hairstreak *Thecla betulae* and white-letter hairstreak butterflies *Satyrium album* (UK BAP and Cherwell BAP species) were recorded within the hedgerows on site.

Otter and Water Vole

2.23. An assessment of habitats for both water vole and otter was carried out in 2011. The only suitable habitat for either of these species is within the wet ditches. The majority of these ditches were dry during the 2023 walkover survey, reducing the habitat suitability for water vole and otter. No evidence of either species was recorded during the surveys and it was considered that these species are likely absent from the site.

Reptiles

2.24. Reptile surveys undertaken in 2011 recorded low numbers of common lizard *Zootoca vivipara* within areas of suitable habitat within the site, comprising field margins and hedgerows. The data search also revealed historic records of grass snake *Natrix helvetica* within the site, although no individuals of this species were observed during the 2011 surveys.

Western European Hedgehog

2.25. Hedgehog is a priority species known to be present within the area in 2011. The site habitats, namely the hedgerows and woodland, are considered to be suitable to support this species in low numbers.

### **Post-development Habitats**

2.26. The Phase 1a site post-development will comprise the hardstanding entrances to the site.



- 2.27. The Phase 1B site post-development will predominantly comprise access roads throughout the Phase 2 areas, along with areas of grassland.
- 2.28. Hedgerows will also be retained and enhanced with native buffers where possible, except for in discrete sections for access roads and footpaths. Additional planting across Phase 1B will include amenity grassland, species-rich long grasslands, new tree planting and sustainable urban drainage basins (SuDs).
- 2.29. At handover of the site to the management company and the start of the implementation of this LHMP, it is expected that the site construction is complete including the installation of ecological features.



# Section 3: Ecological and Landscape Management Objectives

### **Ecological and Landscape Trends and Management Constraints**

- 3.1. Ongoing habitat management and maintenance on the site cannot be undertaken if it would compromise the survival or success of the fauna that could be present post-development, as this could result in an offence under protective legislation pertaining to wildlife, notably the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Protection of Badgers Act 1992. Such constraints would therefore apply to bats, GCN, nesting birds, reptiles and badgers.
- 3.2. All bats and their roosts, and GCN are European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') and are afforded protection under the WCA 1981 (as amended).
- 3.3. All breeding birds, their nests, eggs and young are protected under the WCA 1981 (as amended), which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. Species listed under Schedule 1 of the WCA 1981 are afforded additional protection from disturbance while breeding.
- 3.4. Badgers and their setts are protected under the Protection of Badgers Act 1992, due to persecution of the species in the past.
- 3.5. Great crested newts (GCN) are listed on Appendix II of the Bern Convention and on Annexes II and IV of the EU Natural Habitats Directive. In England and Wales the great crested newt is protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
- 3.6. All of Britain's native reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA). The four common species of reptile: adder *Vipera berus*, grass snake *Natrix natrix helvetica*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara* are listed on Schedule 5, Section 9, Parts 1 and 5, of the WCA.
- 3.7. This management strategy will ensure that no breach in legislation occurs with regards to European Protected Species, nesting birds, reptiles and badger. The measures proposed will also protected other protected/priority species which may be present including common toad, brown hare, harvest mouse, polecat and hedgehog.

### **Aims and Objectives**

- 3.8. In considering options for management of the habitats within the site, the following factors were considered:
  - The existing land use and character of the site;



- The habitat requirements of species currently present within the site, in particular protected species and species of principal importance (SoPI) as defined in section 41 of the Natural Environment and Rural Communities Act 2006:
- Cherwell Local Plan 2011-2031 detailing current planning policy within Cherwell Council;
- Opportunities to contribute towards priority habitats and species within Cherwell BAP 2016 - 2018 which includes priority habitats and species;
- The sustainability of habitats to be created, taking into account natural processes (such as succession) and management inputs required to maintain them;
- Opportunities to enhance structural variety within habitats through new habitat planting; and
- Opportunities to strengthen green corridors across and around the site through new habitats and retention and enhancement of habitats to maximise connectivity for wildlife.
- 3.9. The overarching management objectives are:
  - Apply good horticultural and ecological practice to all operations;
  - Promote healthy growth and establishment of all plants, trees and grass;
  - Ensure consistent control of weeds;
  - Provide protection against pests and disease;
  - Promote wildlife value and species diversity where appropriate;
  - Ensure long-term commitment to replacement of defective plant material; and
  - Review opportunities for introduction of new species or replacement of exhausted species where appropriate, in line with original design intentions.
- 3.10. The aims and objectives of this LHMP are listed below, with a detailed rational provided thereafter:
  - To ensure that retained and newly created habitats are maintained in order that they
    establish successfully and provide biodiversity benefits in the long term, in line with
    national and local policies;
  - 2) Maintain, and where possible improve, the conservation status of identified key species, namely GCN, badgers, bats, birds, reptiles and hedgehog. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats; and
  - 3) Monitor the efficacy of this LHMP.



Objective 1 - To ensure that retained and newly created habitats are maintained in order that they establish successfully and provide biodiversity benefits in the long term, in line with national and local policies.

- 3.11. The mitigation and enhancement recommendations provided within the Biodiversity Strategy (Tyler Grange, 2023) and the previous ES chapter (Hyder Consulting, 2011) should be adhered to, to reduce/minimise the potential to adversely impact upon protected or priority species and/or habitats. These include:
  - The Landscape Masterplan includes the incorporation of native tree, shrubs, hedgerows and grasslands within areas of green space, reinforcement of the hedgerows and around the boundaries of the site (see **Appendix 1**). These habitats will all be installed as per the landscape proposals;
  - Landscape design includes landscape planting that is of benefit to wildlife, especially pollinating insects;
  - Retain and enhance existing ponds P1 and P2, trees, hedgerows, scrub and shrubs along the boundaries of the site; and
  - As the habitats mature and become established, the ecological value of the site will become increasingly more diverse and beneficial to faunal species.

Objective 2 - Maintain, and where possible improve, the conservation status of identified key species, namely GCN, badgers bats, birds, reptiles and hedgehog. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats

Bats

- 3.12. No bat roosts have been identified within the Phase 1A or 1B boundaries.
- 3.13. The bungalow building (B1) on plan **15525/P10** was considered to offer high potential for roosting bats following an update survey by Tyler Grange in February 2024 and is undergoing emergence surveys.
- 3.14. If bats are found to be roosting within the building, then the demolition will take place under a licence from Natural England. The Licence Application would set out the working method for works around the roost to ensure no bats are killed or injured during the demolition of the building and detail enhancement measures.
- 3.15. If no bats are found to be roosting within the building following the completion of all emergence surveys, then demolition can take place without the need for a licence from Natural England.
- 3.16. The majority of hedgerows are being retained and enhanced as part of the proposals and the creation of approximately 1.7km of hedgerow across the wider site will enhance the site for foraging and commuting bats. In addition, new native scrub planting along the hedgerows will reduce light spill and minimise disturbance to bats. Enhancement of the



ponds and creation of new Sustainable Urban Drainage Systems (SUDS) will also create further opportunities for foraging bats. The creation of a wildlife corridor and the hedgerow creation will provide increased connectivity for bats across the site and into the wider landscape.

3.17. A sensitive lighting strategy will be implemented on the site to minimise disturbance to bats, particularly along the retained and created habitats. This lighting strategy will avoid light spill directly onto the retained and new landscape planting.

Birds

3.18. Management of retained and newly created habitats across the site, as detailed in the Landscape Masterplan (see **Appendix 1**) such as trees, hedgerows and shrubs will, once established continue to provide nesting and foraging opportunities for birds. The creation and seeding of new grassland with species-rich mixes will also attract invertebrates, which is turn will provide a foraging resource for birds.



GCN

- 3.21. All ponds on site are located outside of the Phase 1A and 1B site boundaries (see **Plan 15525/P11**), however part of the Phase 1B development site is within 250 m of pond P2. Any works within 250 m of pond P2 will take place under licence (either granted by Natural England or via the district licencing scheme).
- 3.22. The creation of new drainage basins across the site will provide GCN and other amphibians with additional habitats of importance. Furthermore, the provision of purpose-built hibernacula in conjunction with existing suitable habitat, will provide amphibians and other species with additional areas of undisturbed refugia post-development.

Hedgehog

3.23. Management of retained, enhanced and newly created grassland and scrub will continue to provide opportunities for hedgehog on the site. Placement of log piles in appropriate locations and adjacent to hedgerows throughout the site will provide additional opportunities for hedgehog, and other species groups such as invertebrates. Log piles will be created using woody arising from vegetation clearance and management.

Reptiles



3.24. The proposals across the site include a range of retained and new habitats that will be of benefit to reptiles, such as SuDs, scrub and wildflower grassland that provides new habitat for reptiles, creating new opportunities for this species group post-development. The new habitats created will enhance connectivity through the site for reptiles and into offsite habitats. Furthermore, the provision of purpose-built hibernacula in conjunction with existing suitable habitat, will provide reptiles and other species with additional areas of undisturbed refugia post-development.

### Constraints

3.25. All British birds, their nests, young and eggs are legally protected while actively nesting (generally acknowledged to occur between March and August inclusive, although this is not defined in law and birds can nest outside of this time). As such, removal and future management of trees, hedgerows, scrub and shrubs will be timed to avoid the bird nesting season.

### Objective 3 - Monitor the efficiency of this LHMP

3.26. Planting will be regularly monitored by the management company. Should the need for replacement planting be identified, this will be undertaken in line with the Landscape Masterplan (see **Appendix 1**).



### **Section 4: Management Prescriptions**

- 4.1. The prescribed management actions, including implementation timetable, management responsibilities and maintenance schedules are set out in Table 4.1 4.3 below which should also be read in conjunction with the Landscape Masterplan (see **Appendix 1**). Management and maintenance will continue in perpetuity in line with these reports.
- 4.2. After five years, a review of the LHMP will be undertaken and amended as required. The prescriptions detailed are flexible and can be amended as appropriate. On completion of the LHMP, the prescriptions undertaken will be fully reviewed and the LHMP will then be updated and continued as required.
- 4.3. Responsibilities for implementing the plan lie with the management company team, and any other parties mentioned in the prescriptions below.



# Table 4.1: Objective 1 - To ensure that retained and newly created habitats are maintained in order that they establish successfully and provide biodiversity benefits in the long term, in line with national and local policies.

All prescriptions and habitat management should be read in conjunction with the Landscape Masterplan.

Prescription and Habitat	Action	Timing	Responsibility	
Ensure no significant adverse impacts on biodiversity occur during the operational stage of the new development.	Post-development management of retained and newly planted trees, hedgerows, scrub and shrubs; should landscape maintenance work be carried out during the nesting bird season (generally acknowledged to be between March and August inclusive, though this is not defined in law and birds can nest outside of this time), all working areas will be checked for active nests by a suitably qualified person immediately prior to work commencing. Any active nests within vegetation will be protected with a suitably sized protection zone, within which no activity will take place until any chicks have fledged.	Annually, as and when tree, scrub and shrub management is required	Management Company Suitably Qualified Person	
All new planting	All new planting will be provided with suitable irrigation. Water trees, whips, hedgerows, grassland and shrubs at least once a week if there has been no rain or at times of drought, particularly during the first growing season after installation.  Litter pick retained and new planting.  Control weeds around the base of the new planting and remove as necessary. Maintain a weed free area around each plant during the first 5 years.  During the first 5 years, dead and broken branches/shoots will be pruned and disposed of appropriately	At least once a week/when required  Eight weekly intervals annually between April - December  Eight weekly intervals annually between April - December  Eight weekly intervals annually between April - December	Management Company	
Trees	Trees should be planted as per manufacturing specifications. New tree planting to be protected using tree guards and staked appropriately. Remove tree guards and stakes once trees become established.	During construction -first planting season  As required	Management Company	



Prescription and Habitat	Action	Timing	Responsibility
	Trees will be provided with suitable irrigation. Water trees at least once a week if there has been no rain or at times of drought, particularly during the first growing season after installation.	At least once a week, when required	
	Control weeds around the base of the tree and remove as necessary.	Annually, every six months Annually, in Spring	
	Mulch all new trees annually in spring to insulate the soil and protect plant roots.	Once every three years in Autumn (September-November)	
	Once established, trees will be pruned every three years, as required. Undertake corrective tree surgery operations as necessary – this may consist of the removal of dead limbs, crown thinning or reduction or pollarding where necessary, although only where there is a risk to the public due to the benefits to wildlife that these features could support. Felling should only be undertaken as a last resort.	Visual inspections to be completed by a qualified Arboriculturist annually when trees are in leaf or as required when visual inspections identify a health and safety risk.	
	Any arisings will be placed on site in heaps in sunny positions along the western, northern and eastern boundary to create natural log piles.  All trees will be surveyed and tagged by a suitably qualified arborist with any defects catalogued.	Corrective surgery to be completed as identified by arboricultural assessment following approvals from LPA. To be carried out outside of the bird nesting season and following advice from an ecologist.	
		Prior to the implementation of this LHMP	
Hedgerows	Whips to be planted in double staggered rows, including a native mix and species within a known wildlife benefit.	Prior to the implementation of this LHMP or in the next planting season following occupation.	Landscape Contractor to plant – advised as necessary by Ecologist, Arboriculturist.
		During planting	



Prescription and Habitat	Action	Timing	Responsibility
	Installation of tree guards and stakes, where required, around newly planted trees and whips.	Annually	
	Annual monitoring of the tree guards and stakes. Replace any damaged guards or stakes and loosen or tighten as required.	Annual check, then removal between year 3 – 5, or as required.	
	Remove tree guards and stakes once trees have become established.	Every three years, November	
	Once established, management will include single cuts to provide a more natural appearance, with one side cut every three years on a rotational basis. Cutting should be undertaken in November to allow plants to produce flowers and berries and thereby provide further food sources for birds, invertebrates and a range of other wildlife.		
	Informal management of scrub once every two years. Cut back, coppicing and thinning where required, to maintain a naturalised buffer.	Once every two years between September and February inclusive.	Management Company
Scrub	Create log piles with larger woody vegetation and remove all other arising from site.		
	Visually inspect the surrounding grassland to prevent encroaching of scrub into other habitats. Cut back as required.	Annually, in October	
	Bulb planting should be undertaken as per the Landscape Masterplan. All bulbs will be planted as per the growers instruction.	Immediately after construction.	Management Company
Bulb planting	Mulch around bulb annually in spring.	Annually, in spring	
Solo planting	Avoid mowing or strimming over the bulbs once new shoots and growth has started.	Annually in Autumn	
	Once bulbs have flowered, remove dead or dying flowers or leaves.	Thinburg in Hotolini	



Prescription and Habitat	Action	Timing	Responsibility
Amenity grassland	Grass areas shall be mown in order to maintain the visual amenity of the area. Mowing frequency and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout spring and summer. Arisings would be removed. Hand tools shall be used around trees, plants and confirmed spaces where it is impractical to use machinery.	As and when required	Management Company
	Grassland areas on the Landscape Masterplan will be sown and managed as per the manufacturing instructions.	Immediately after construction. At least once a week, when required	Management Company
	Ensure grasslands are adequately watered during the first growing season.	As required	
	Grass areas shall be mown in order to maintain the visual amenity or biodiversity use of the area. Mowing frequency	Spring cut - May	
	and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout spring and summer	Autumn cut - September	
Grassland including species-rich long grassland, meadow mixture and flowering lawns	Management will include traditional meadow management. This includes: Autumn sowing – first summer cut to leave the grassland at a sward height of between 40 – 70mm in May and a second cut to the same length in the September. Spring sowing – first cut six weeks following sowing, then once in May and once in September.		
	All arisings will be removed from site or placed in a designated compost heap.		
	Prevent the growth and spread of invasive weeds such as creeping thistle, spear thistle, docks species and common nettle and encroachment of scrub.	Annually, every six months	
All Habitats -Remedial Actions	Each autumn, the new planting scheme shall be inspected, and dead or dying plants shall be recorded and replaced in the next winter planting season, until 100% canopy achieved and/or gaps are filled. Plants to be pruned as required.	Annually, as required	Management Company
Hibernacula and Log piles	Creation of hibernacula and log piles within suitable areas adjacent to the ponds and hedgerows.	Post construction	Management Company



Prescription and Habitat	Action	Timing	Responsibility	
Maintain incorporated landscape planting that is of benefit to wildlife	Landscape planting across the site to provide opportunities for pollinating insects and other wildlife.	The first planting season following completion of construction activities. Annually during the growing season.	Management Company	



Table 4.2: Objective 2 - Maintain, and where possible improve, the conservation status of identified key species, namely GCN, bats, birds, reptiles, hedgehog and badger. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats

Prescription	Action	Timing	Responsibility
Maintain, and where possible improve the conservation status of identified key species, namely bats	Management of hedgerows, trees, scrub, ponds and shrubs to maintain features for commuting and foraging bats.	See Table 4.1.	Management Company
Maintain, and where possible improve the conservation status of identified key species, namely birds and badger	Management of hedgerows, trees, scrub, ponds and shrubs for foraging and nesting birds and foraging opportunities for badger.  Instate buffer planting using thorn producing species around any retained badger setts.	See Table 4.1.	Management Company
Maintain, and where possible improve the conservation status of identified key species, namely GCN	Management of hedgerows, trees, scrub, ponds and shrubs to maintain and enhance aquatic and terrestrial habitats for GCN.	See Table 4.1	Management Company
Maintain, and where possible improve the conservation status of identified key species, namely reptiles and hedgehog.	Creation of hibernacula and log piles with retained and enhanced habitat around the hedgerows.  Monitoring and management of log piles created from felled wood by ensuring there are gaps present and it is not compact. If no gaps are present, carefully place a garden fork in the log pile and slowly leaver the fork downwards to open up the structure.	During construction  Annually, in September	Management Company
	Continue to add woody arisings from habitat management to the log piles.	During management of woody vegetation, see Table 4.1	



Table 4.3: Objective 3 - Monitor the efficiency of this LHMP.

Prescription	Action	Timing	Responsibility
Monitor and review management objectives	Annually, the management and maintenance will be reviewed to establish if changes are required to ensure the long-term viability of the landscape proposals to maximise biodiversity potential.	Annually	Management Company
Monitor and review management objectives	Upon completion of the initial five years, ongoing habitat management and maintenance will be undertaken in perpetuity, as described within this document. This document will be reviewed and revised, if necessary, following the initial five year period, in order for the management prescriptions to be adapted/amended as required to continue to deliver management objectives.	Year 5	Management Company

### References

Butcher, B. Carey, P. Edmonds, R. Norton, L. and Treweek, J. (2020) UK Habitat Classification – Habitat Definitions V.1.1.

Collins, J. (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). London: The Bat Conservation Trust.

DEFRA (2022) Multi-Agency Geographic Information for the Countryside (MAGIC) Interactive maps, available online at: <a href="https://magic.defra.gov.uk/magicmap.aspx">https://magic.defra.gov.uk/magicmap.aspx</a>.

English Nature, 2001. Great Crested Newt Mitigation Guidelines. Peterborough: English Nature.

JNCC, 2010. Handbook for Phase 1 habitat survey – a technique for environmental audit. JNCC, Peterborough, ISBN 0 86139 636 7.

Mitchell-Jones A. (2004) Bat Mitigation Guidelines. Natural England, Peterborough.

Mitchell-Jones A. and McLeish A.P. (2004). Bat Workers' Manual (3rd edn.). JNCC

Natural England (2022) Bats: Advice for making planning decisions – Standing Advice. Available online at <a href="https://www.gov.uk/guidance/bats-advice-for-making-planning-decisions">https://www.gov.uk/guidance/bats-advice-for-making-planning-decisions</a>.

Panks, S. White, N. Newsome, A. Nash, M. Potter, J. Heydon, M. Mayhew, E. Alvarez, M. Russell, T. Cashon, C. Goddard, F. Scott, S.J. Heaver, M. Scott, S.H. Treweek, J. Butcher B. and Stone D. (2032). Biodiversity metric 4.0: Auditing and accounting for biodiversity – User Guide. Natural England.



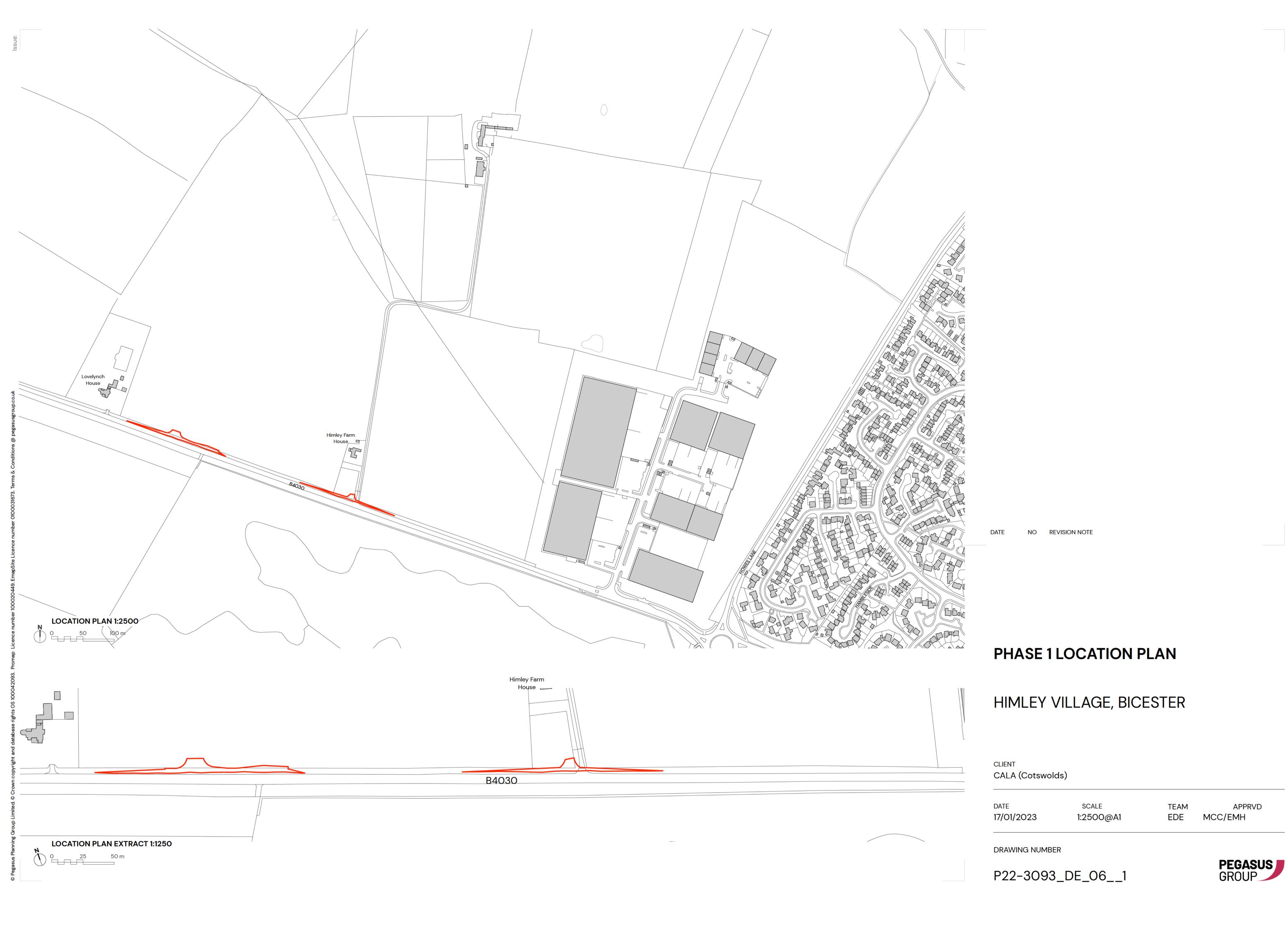
## Appendix 1: Landscape Masterplan





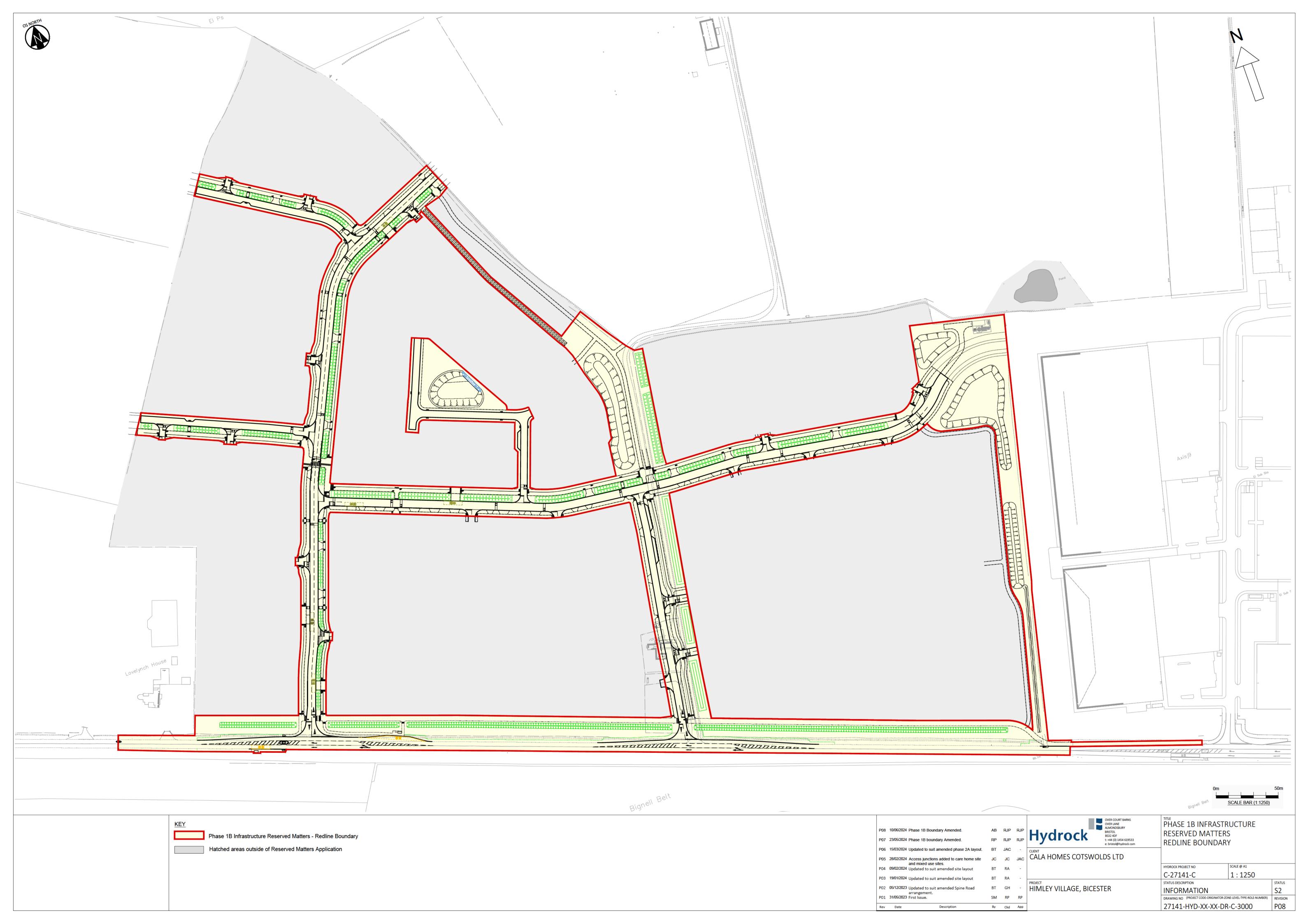
## Appendix 2: Phase 1A Location Plan





## **Appendix 3: Phase 1B Location Plan**





### Plans:

Plan 1: 15525/P03b Habitat Features Plan

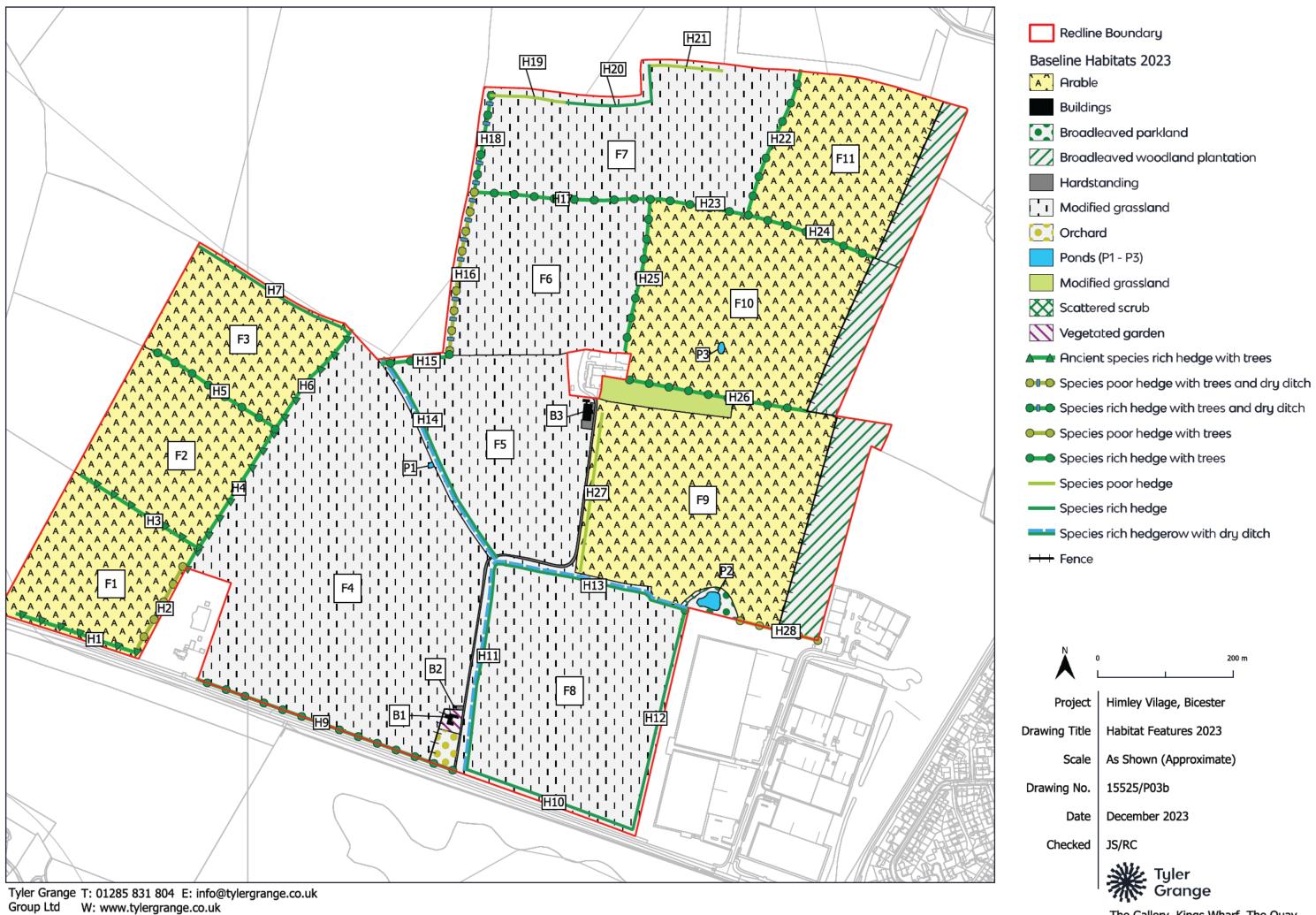
Plan 2: 15525/P10 Phase 1B Habitat Features Plan

Plan 3: 15525/P11 Phase 1B GCN Impacts Plan

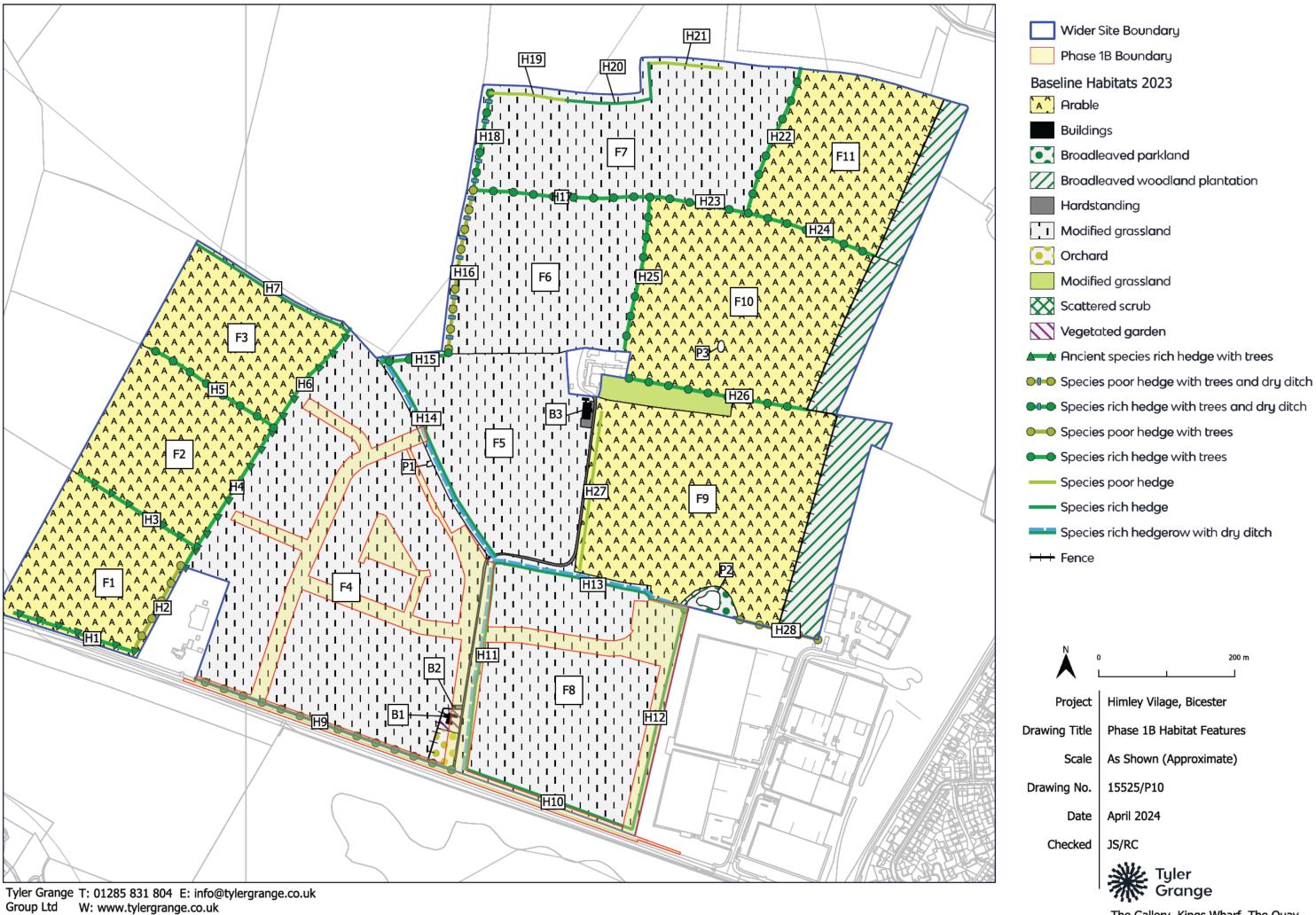
Plan 4: 15525/P12 Phase 1B Badger Impacts Plan

Plan 5: 15525/P15 Phase 1A Habitat Features Plan

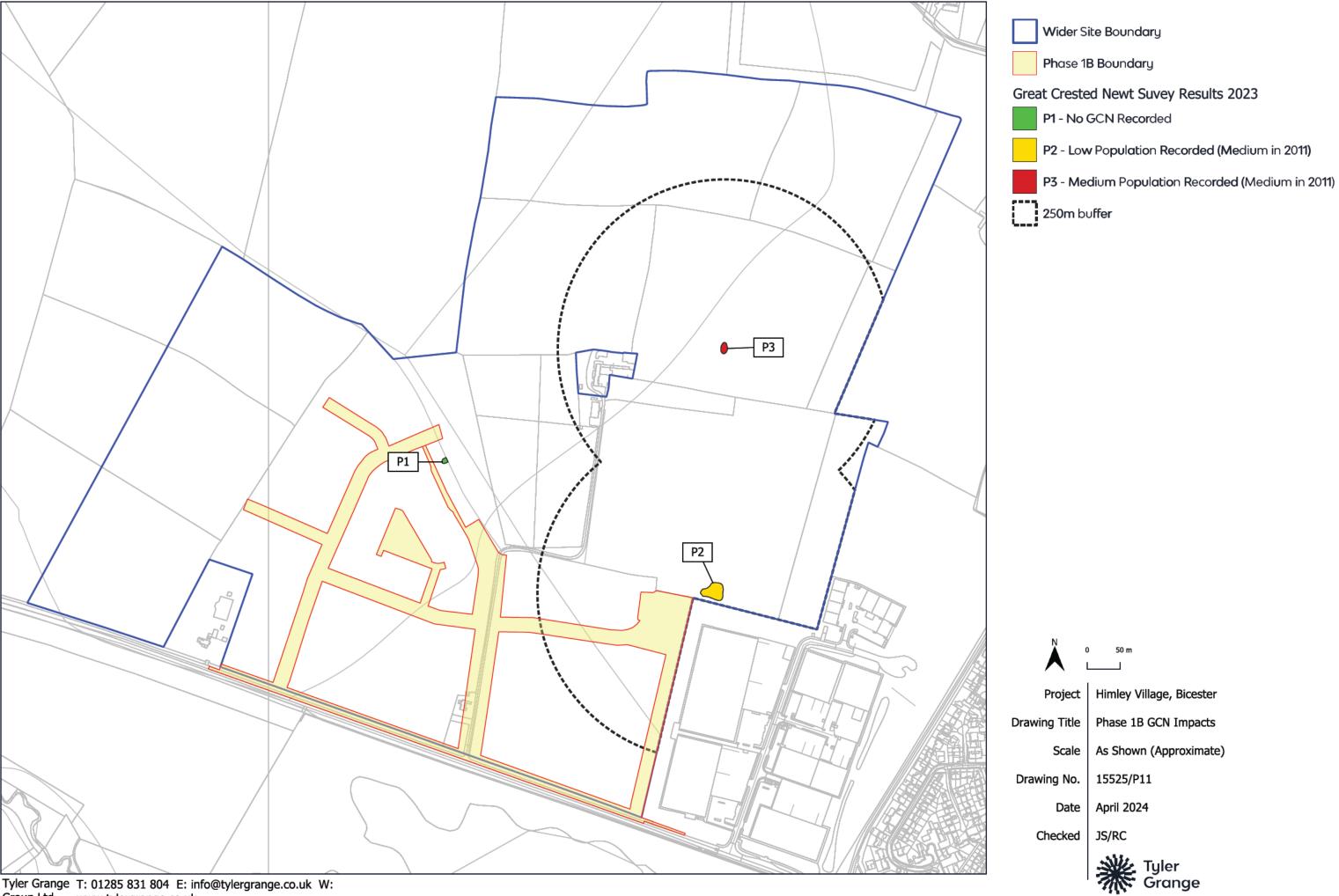




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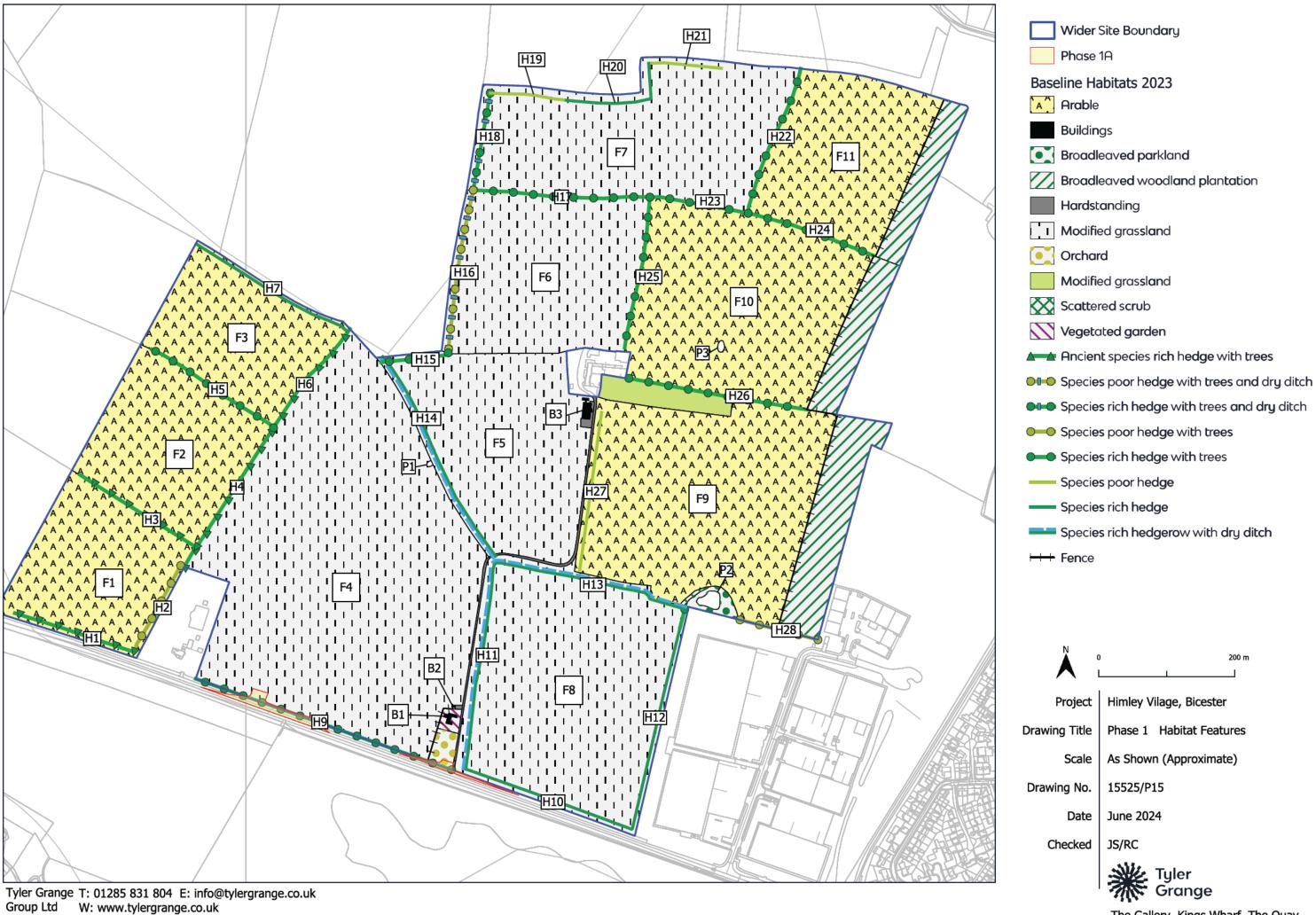


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