Providing Ecological Solutions

Epworth, North Lincolnshire

Biodiversity Enhancement Plan

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Declaration of Compliance

This report has been undertaken in accordance with British Standard 42020:2013 “Biodiversity: Code of practice for planning and development” (BSI, 2013), the CIEEM’s Code of Professional Conduct (2022) and Guidelines for Ecological Report Writing (CIEEM, 2017).

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EXECUTIVE SUMMARY

This Biodiversity Enhancement and Management Plan (BEP) has been produced by PBA Applied Ecology Ltd. The objective of the BEP is to provide recommendations for the conservation of biodiversity during the course of the works, the enhancement of biodiversity upon completion of the works, and the planning of long-term management strategies. This is in association with works at Epworth (SE 79265 03741). The works will include the construction of new housing on the site with associated infrastructure and public amenity spaces. It is also expected that a new link road through the development will be created.

Baseline Ecological Information

Habitats present include cropland (c1), modified grassland (g4), other neutral grassland (g3c) and hedgerows (h2a). The survey yielded observations of several bird species, including robin, dunnock, skylark, fieldfare, greenfinch, chaffinch, and woodpigeon. Additionally, the presence of adders *Vipera berus* has been recorded within a radius of 0.3 km from the site. However, the site itself lacks the specific habitat characteristics that would be suitable for adders. It can also be reasonably assumed that ground-nesting birds use the site.

Designated sites are unlikely to be impacted by the works.

Measures to be taken to protect wildlife and habitats during construction

- No artificial lighting is to be used at dusk, dawn or overnight, and works must not be undertaken within these times.
- The removal of vegetation, including long grassland and hedgerow, to occur outside of the breeding bird season.
- Protection of small terrestrial mammals and reptiles through phased cutting.
- All excavations must be covered overnight or fitted with a means of escape.

Measures to enhance wildlife habitat post-construction

- Creation of moderate condition other neutral grassland onsite.
- Creation of moderate condition sustainable drainage system onsite.
- Creation of moderate condition species-rich native hedgerow onsite.
- Creation of poor condition other neutral grassland offsite.
- Inclusion of native species within gardens and communal spaces.
- Compensation for loss of nesting bird habitat through integrated boxes within the fabric of new buildings.
- Creation of bat roosting habitat through integrated boxes within the fabric of new buildings.
- Sympathetic lighting is to be used across the site.

Measures to manage habitats long term

- Wildflower road verge management
- Grassland management
- Scrub management
- Bat and bird box management

1 INTRODUCTION

1.1 TERMS OF REFERENCE

PBA Applied Ecology Ltd (PBA) was commissioned by DGL Associates Ltd to produce a Biodiversity Enhancement Plan (BEP) in association with the proposed development at Epworth, Lincolnshire. Given the nature of the housing development, an offsite receptor site was purchased in order to enhance the land on site, with the objective of meeting the 10% net gain in habitat units.

This BEP sets out the actions required to protect the ecological features at the site throughout the construction phase and those that will be implemented to enhance the site's ecological value upon completion of the works. It also specifies the long-term management requirements for the habitats that are created or enhanced.

This plan is based on the findings and recommendations of a Preliminary Ecological Appraisal (PEA) conducted on 21/02/2023 by PBA Ecologists Andrew Macaulay ACIEEM BSc and Mark Penny MSc and the offsite habitat assessment undertaken by PBA on 08/08/2024 by Andrew Macaulay ACIEEM BSc and Sam Redfern. Once the surveys were complete, a Biodiversity Net Gain (BNG) assessment was conducted. This assessment outlined the necessary enhancements or creations of habitats to achieve a net gain for biodiversity. Additionally, the BNG assessment incorporated a qualitative assessment, providing recommendations on enhancing the site for individual ecological components. The principal documents consulted are Epworth – PEA and Epworth – BNG.

1.2 SITE LOCATION AND CONTEXT

The survey site is an arable field located immediately to the east of the town of Epworth (SE 79265 03741; see Figure 1, marked in red). The receptor site is also an arable field, situated to the northeast of Epworth (SE 78723 04251; see Figure 1, marked in black).

The broader landscape is characterised by urban expansion to the west and extensive arable farming to the north, south and east (Figure 1).

1.3 SCOPE OF WORKS

The development will comprise of the construction of new housing on the site with associated infrastructure and public amenity spaces. A new link road through the development is also expected to be created (Appendix A).

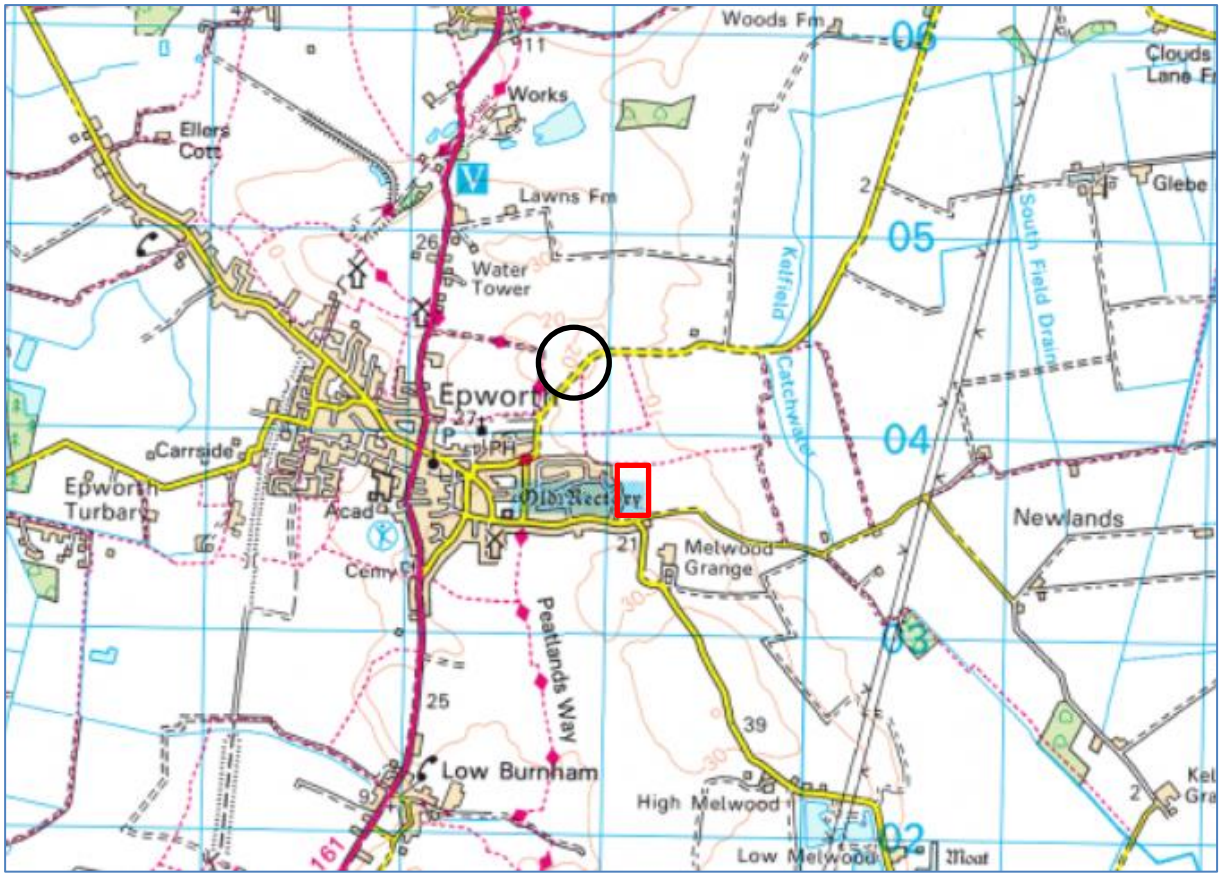


Figure 1: *Site location (red), receptor site (black) (Bing Maps, 2024).*

2 BASELINE ECOLOGICAL INFORMATION

2.1 ONSITE ECOLOGICAL APPRAISAL

A PEA was undertaken by PBA on 21/02/2022 (PBA Ecology, 2023). Habitats identified within the site boundary and on its boundaries included:

2.1.1 Cropland (c1)

This habitat constituted most of the site and was characterised by a monoculture of wheat *Tritium aestivum*. The absence of plant species and structural diversity renders this area unlikely to possess significant ecological value or important habitat features.

2.1.2 Modified grassland (g4)

Modified grassland extended around the edges of the wheat monoculture within the site boundary. This habitat was dominated by meadow grasses *Poa* sp. with other abundant to frequent species including couch grass *Elymus repens* and cleavers *Galium aparine*. Occasional species seen in this habitat included doves-foot crane's bill *Geranium molle*, ragwort *Jacobaea vulgaris*, groundsel *Senecio vulgaris*, germander speedwell *Veronica chamaedrys*, broad-leaved dock *Rumex obtusifolium*, dandelion *Taraxacum* spp., and nettle *Urtica dioica*.

2.1.3 Other neutral grassland (g3c)

In the northeast section of site, this area of habitat appeared to have been sown with wildflowers, likely to be part of ongoing BNG measures proposed as part of the present development (TN1). Species in the vegetation included bush vetch *Vicia sepium*, tansy *Tancetum vulgare*, red clover *Trifolium pratense* and henbit deadnettle *Lamium amplexicaule*.

2.1.4 Hedgerows (h2a)

The west edge of site was bordered by a blackthorn *Prunus spinosa* hedgerow with honeysuckle *Lonicera periclymenum* growing in the hedge in places. In the southwest corner of site, a line of cherry laurel *Prunus laurocerasus* separated the site from adjoining residential property. Saplings of hawthorn *Crataegus monogyna*, silver birch *Betula pendula* and wild cherry *Prunus avium* had been planted around the rest of the site perimeter. These are expected to mature into hedgerow, in line with the proposed development's BNG requirements.

2.2 Offsite Ecological Appraisal

An offsite habitat assessment undertaken by PBA on 08/08/2024 (PBA Ecology, 2024a). Habitats identified within the site boundary include:

2.2.1 Cropland (c1)

This site is comprised of a large area of wheat *Tritium* sp. Given the lack of plant species and structural diversity, this area is unlikely to hold significant ecological value or important habitat features.

2.3 Biodiversity Net Gain Assessment

A BNG assessment of the site was conducted with the objective of calculating the habitat units present in the current state of the site (Baseline Scenario – Section 2) and the habitat units that would be created after implementing the proposed development (Scenario 1 – GL1999 MP 01 A Landscape Masterplan by golby + luck landscape architects). This assessment was conducted by PBA Ecology (2024a).

The proposed scenario encompasses a variety of habitats, including developed land with sealed surfaces (u1b), vegetated gardens (u828), other neutral grasslands (g3c), modified grasslands (g4), built linear features (u1e), and sustainable urban drainage features (f2d 848). Additionally, several native and non-native hedgerows and individual trees will be incorporated into the development. The limited space available for habitat enhancement and creation is reflected in the net loss of habitat units on-site. In order to meet the required 10% net gain, an offsite receptor site was necessary. The habitats within the baseline and scenario 1 on-site and offsite were calculated using the BNG metric (Table 1).

Table 1: *Headline BNG results.*

		Baseline Habitat Unit Value	Scenario 1 Habitat Unit Value	Net Unit Change	Net Percent change
Onsite	**Habitats**	15.39	10.71	- 4.68	- 30.39%
Onsite	**Hedgerows**	0.94	7.62	+ 6.68	+ 707.41%
Offsite	**Habitats**	6.58	12.94	+ 6.35	+ 96.50

Sections 3, 4 & 5 outline the methods by which habitats will be retained, enhanced, created and managed to meet the requirements set forth in the BNG Assessment, both in regard to habitats and species.

3 MEASURES TO PROTECT WILDLIFE AND HABITATS DURING CONSTRUCTION

The principal aims of environmental management during the construction phase are to protect wildlife and retained habitats throughout the initial stages of development and to ensure that no wildlife legislation is contravened. In order to achieve these aims, it is essential that the following recommendations are adhered to:

- No artificial lighting is to be used at dusk, dawn or overnight, and works must not be undertaken within these times.
- The removal of vegetation, including long grassland and hedgerow, to occur outside of the breeding bird season.
- Protection of small terrestrial mammals and reptiles through phased cutting.
- All excavations must be covered overnight or fitted with a means of escape.

3.1 NO ARTIFICIAL LIGHTING TO BE USED, OR WORK UNDERTAKEN, AT DUSK, DAWN OR OVERNIGHT

Given the presence of suitable habitats on the site, bat activity surveys were not conducted. It is probable that the site is used as a foraging or commuting route between nearby housing and habitats to the east. In order to minimise the impact on bats (and other crepuscular and nocturnal animals), it is recommended that the works should not be undertaken overnight, during dusk, or dawn. Furthermore, no artificial lighting should illuminate the site during these periods.

3.2 THE REMOVAL OF ANY VEGETATION IS TO OCCUR OUTSIDE OF THE BREEDING BIRD SEASON.

All species of nesting birds are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended). It is therefore an offence to intentionally or recklessly kill or injure any wild bird, or to intentionally or recklessly damage or destroy any nest or egg of an actively nesting bird. In order to minimise the risk of contravention of this act, it is recommended that the removal of all suitable nesting bird habitat should take place in autumn/winter and therefore outside of the breeding bird season (March–August inclusive). This encompasses the felling of any trees, the removal of any scrub or shrubs, and the cutting of long grassland. If an active bird's nest is observed on the premises during this clearance, the work should be temporarily halted in the vicinity of the nest and guidance should be sought from the appointed ECoW.

If the removal of any vegetation (long grassland, scrub, trees) with the potential to support nesting birds is required during the breeding bird season, a search for active nests must be undertaken by a trained ecologist no more than 24 hours beforehand. If nests are discovered, their precise location should be marked, and all personnel on the site must be informed. The vegetation in the immediate vicinity of the active nest should not be cleared until all chicks have fledged and are no longer using the nest.

3.3 PROTECTION OF SMALL TERRESTRIAL MAMMALS AND REPTILES THROUGH PHASED CUTTING

No evidence of protected mammals has been recorded during any site surveys.

It seems probable that small terrestrial mammals and potentially reptiles may utilise the habitats present on the site. To encourage the dispersal of small terrestrial mammals and reptiles, it would be advisable to cut any grass or vegetation to a length of 300 mm and leave it overnight. The following day, it should then be cut to a height not exceeding 50 mm.

3.4 ALL EXCAVATIONS MUST BE COVERED OVERNIGHT OR FITTED WITH A MEANS OF ESCAPE

All excavations must be securely covered overnight or fitted with a means of escape for wildlife. One potential solution is the construction of a secure ramp at an angle of less than 45 degrees. If any terrestrial mammals (hare, *Lepus europaeus*; rabbit, *Oryctolagus cuniculus*; or small mammals) are encountered during unsupervised operations, work in the immediate vicinity shall be halted until the

animal can be safely relocated or permitted to leave of its own accord. If a protected mammal is suspected to be present (e.g. badger, *Meles meles*, or otter, *Lutra lutra*), the ECoW should be consulted for further guidance.

4 MEASURES TO MAINTAIN AND ENHANCE WILDLIFE HABITAT POST-CONSTRUCTION

The proposed ecological measures are required to maintain and enhance habitat quality following completion of the development. This will ensure compliance with local planning authority requirements to conserve and enhance local biodiversity, as well as to deliver the BNG units described in the BNG Assessment (PBA Ecology, 2024a).

The objective of environmental management following the completion of the development is twofold: firstly, to ensure that wildlife and retained habitats are enhanced; secondly, to guarantee that no wildlife legislation is contravened. Creation of new habitats is encouraged. To achieve these aims, the following recommendations must be followed:

- Creation of moderate condition other neutral grassland onsite.
- Creation of moderate condition sustainable drainage system onsite.
- Creation of moderate condition species-rich native hedgerow onsite.
- Creation of moderate condition other neutral grassland offsite.
- Inclusion of native species within gardens and communal spaces.
- Compensation for loss of nesting bird habitat through integrated boxes within the fabric of new buildings.
- Creation of bat roosting habitat through integrated boxes within the fabric of new buildings.
- Sympathetic lighting is to be used across the site.

Ongoing management recommendations for the landscape design are provided in Section 5.

4.1 CREATION OF MODERATE CONDITION OTHER NEUTRAL GRASSLAND ONSITE

A grassland area will be established along the northern and eastern boundaries of the housing development. In order to fulfil the criteria for a 'moderate' condition other neutral grassland, as outlined in the BNG Assessment (PBA, 2024a), a grassland seed mix (EM1 Basic General Purpose Meadow and AG22 Amenity) can be sown on the cleared area which was previously inhabited by wheat once phosphorous levels within the soil are below or equal to 25 mgl^{-1} using the Olsen extraction. The introduction of hemi-parasite yellow rattle *Rhinanthus minor* (0.5-2.5 kg per ha) and eyebrights *Euphrasia* spp. seeds will facilitate wildflower growth by parasitising dominant grasses. The majority of the grassland can be managed and improved to create a wildflower meadow which will benefit pollinators and other invertebrates. Section 5.2 details the ongoing management recommendations to enhance and maintain this habitat. Grasslands should only be cut outside of the summer flowering season (September – March).

4.2 CREATION OF MODERATE CONDITION SUSTAINABLE DRAINAGE SYSTEM ONSITE

An area of Sustainable Urban Drainage Systems (SuDs) will be created along the eastern edge of the housing development. To meet ‘moderate’ condition SuDs, the criteria is outlined in the BNG Assessment (PBA, 2024a).

To achieve this, a varied vegetation structure of diverse native species which are suitable for a wetland habitat should be planted within the SuDs. Species to be planted include: common reed *Phragmites australis*, great willowherb *Epilobium hirsutum*, reed canary-grass *Phalaris arundubacea*, bulrush *Scirpoides holoschoenus*, stinking iris *Iris foetidissima*, yellow iris *Iris pseudacorus*, common club rush *Schoenoplectus lacustris*, and pedunculate sedge *Carex pendula*. The appropriate species should be planted above the high-water level in May, June or July, while the species planted below the high-water level within the SuDs should be planted in spring.

Vegetation management includes:

- Cutting back after flowering and thin the vegetation when necessary (every 5-10 years, after September).
- Inspect the vegetation which is establishing within the SuDs quarterly during the first two years.
- Inspect inlets and outlets quarterly or after large storms for debris that may result in clogging.

4.3 CREATION OF MODERATE CONDITION SPECIES-RICH NATIVE HEDGEROW ONSITE

Species rich hedgerows will be planted across the entire site to meet 'moderate' condition species-rich native hedgerow as outlined in the BNG Assessment (PBA, 2024a).

The following species are to be planted within the hedgerow: hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, spindle *Euonymus europaeus*, holly *Ilex aquifolium*, blackthorn *Prunus spinosa*, dog rose *Rosa canina*, and guelder rose *Viburnum opulus*. The hedgerow should be predominantly composed of hawthorn and blackthorn. It is recommended that the hedgerow be planted during the winter months (November to February) to achieve the optimal survival rates. The hedgerow should be planted in two lines, with a distance of 30 cm between them, and a minimum of six plants should be planted for every metre of hedgerow in a zigzag pattern. After several years of growth, the hedgerow will become established and require laying.

Section 5 details the ongoing management recommendations to maintain this habitat.

4.4 CREATION OF MODERATE CONDITION OTHER NEUTRAL GRASSLAND OFFSITE

Within the receptor site an area of grassland will be created along the field margins of the site. To meet 'moderate' condition other neutral grassland, the criteria is outlined in the BNG Assessment (PBA, 2024a).

In order to fulfil the criteria for a 'moderate' condition other neutral grassland, as outlined in the BNG Assessment (PBA, 2024a), a grassland seed mix (EM1 Basic General Purpose Meadow and AG22 Amenity) can be sown on the cleared area which was previously inhabited by wheat once phosphorous levels within the soil are below or equal to 25 mgl^{-1} using the Olsen extraction. The introduction of hemi-parasite yellow rattle *Rhinanthus minor* (0.5-2.5 kg per ha) and eyebrights *Euphrasia* spp. seeds will facilitate wildflower growth by parasitising dominant grasses. The majority of the grassland can be managed and improved to create a wildflower meadow which will benefit pollinators and other invertebrates. Section 5.2 details the ongoing management recommendations to enhance and maintain this habitat. Grasslands should only be cut outside of the summer flowering season (September – March).

4.5 INCLUSION OF NATIVE SPECIES WITHIN GARDENS AND COMMUNAL SPACES

In areas where habitat is being created it is important that only native species are used. Wildflower mixes (EM3) should be used on road verges to provide a nectar source for pollinators and habitat for nesting birds. The addition of the hemi-parasites yellow rattle *Rhinanthus minor* (0.5-2.5 kg per Ha) and eyebrights *Euphrasia spp*. seeds will facilitate wildflower growth by parasitising dominant grasses.

It is recommended that any trees and shrubs incorporated into the public open spaces of the development should be native species and locally sourced wherever feasible. Examples of native trees and shrubs that provide aesthetic appeal through blossom, nectar for pollinators, and fruit for birds include rowan *Sorbus aucuparia*, whitebeam *S. aria*, hawthorn, and wild cherry *Prunus avium*. Additionally, the following species may be considered: guelder rose *Viburnum opulus*, bird cherry *Prunus padus*, crab apple *Malus sylvestris*, spindle *Euonymus europaeus*, dogwood *Cornus sanguinea*, yew *Taxus baccata*, holly, and small-leaved lime *Tilia cordata*.

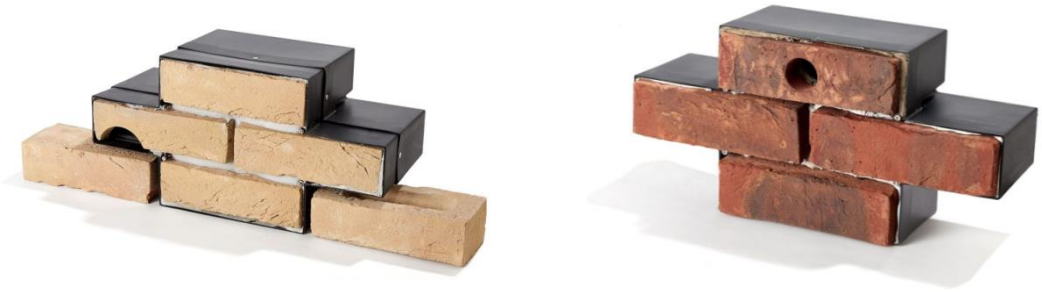
It is recommended that, where feasible, trees and shrubs within the private gardens of properties should be comprised predominantly of native species.

Section 5.3 details the ongoing management recommendations to maintain this habitat.

4.6 COMPENSATION FOR LOSS OF NESTING BIRD HABITAT THROUGH INTEGRATED BOXES

The proposed development will result in the loss of grassland habitat, which is a valuable ecological resource for birds. To compensate for this loss, it is essential to incorporate integrated bird boxes into the design of the new build properties. These boxes will provide immediate nesting opportunities for birds while the created habitats mature, ultimately resulting in a net gain in bird nesting habitat. Appendix B provides suggested locations for the bird boxes.

It is recommended that bird boxes be integrated into the fabric of the building. Ideally, these should be located on the east, west, and north faces of properties, avoiding the south-facing aspects which will experience the most intense midday sun. A range of different styles is available, but all should be placed towards the tops of walls and gables and should provide suitable nesting opportunities for a range of passerine bird species including swifts, house sparrows and starlings. Examples can be viewed at www.birdbrickhouses.co.uk and below in Figure 2.



Integrated swift nest box

Integrated standard nest box

Figure 2: *Examples of integrated bird boxes.*

It is estimated that the following numbers of bird boxes would be sufficient to compensate for the habitats lost and be suitable for the types of species likely to be present on site.

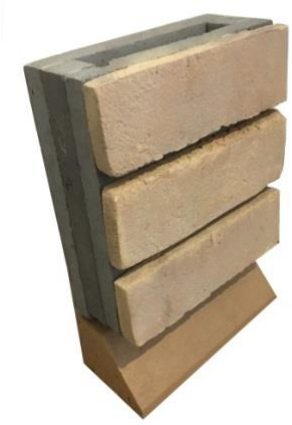
- 6 x Sparrow terrace box - house sparrows, redstarts, wagtails
- 6 x 28 mm diameter hole - range of small tit species.
- 6 x 32 mm diameter hole - house sparrow and nuthatch.
- 7 x 75 mm crescent - swift

The integrated bird boxes will be installed during construction and made available for use before the dwelling is occupied, and thereafter retained. Homeowners should be made aware of any nest boxes located within their property and advised to refrain from directly lighting the boxes.

4.7 CREATION OF BAT ROOSTING HABITAT THROUGH INTEGRATED BOXES

As it is likely that bats utilise this site for foraging and commuting, there is potential to provide suitable roosting opportunities within the development. The **inclusion of 7 pairs of boxes (14 in total) is intended to enhance the number of potential roost features across the site** as negligible potential for roosting was identified during surveys.

Integrated bat boxes should be incorporated into the designs of the buildings. These should be positioned in pairs on east, south or west aspects, 3 - 6 m above ground and where they will not be directly illuminated by street or household lighting. Suggested locations are provided in Appendix B. Bat boxes can be purchased from sites such as www.nhbs.com and examples are shown in Figure 3. This style of box will support crevice dwelling species such as pipistrelles.



Integrated bat box

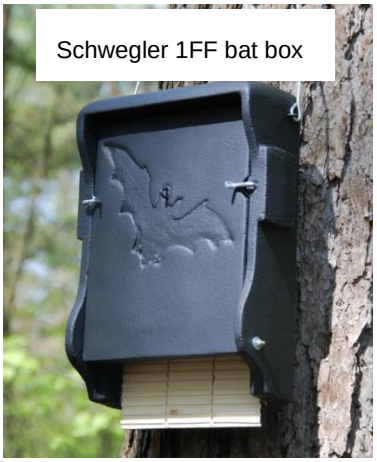


Figure 3: *Examples of bat boxes.*

4.8 SYMPATHETIC LIGHTING IS TO BE USED ACROSS THE SITE

The use of artificial lighting can have a significant impact on nocturnal animals, potentially disrupting their foraging activities and disturbing their roosting sites. This could ultimately lead to a loss of biodiversity. Therefore, it is essential to implement sympathetic lighting strategies across the site, with the input of an ecologist who can review and provide feedback on the lighting plan prior to its approval.

No artificial lighting should directly illuminate any artificial faunal box, especially bat roost boxes. Therefore, homeowners must be made aware of the habitat boxes within their properties.

5 WORK SCHEDULES

Table 2 sets out the ecological and landscape management work schedule pre-works and during works

Table 2: *Ecological works schedule.*

Task	Pre-works	During works	Year 1												Following years											
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Vegetation removal	Sept-February inclusive																									
Install sympathetic lighting																										
Planting of native species in private gardens and communal green spaces																										
Installation of bat and bird bricks																										
Seeding/ plug planting other neutral grassland once phosphorus levels are low enough																										
Mowing of other-neutral grassland (landscape area and road verges)																										
Planting SuDs sedges and rushes																										
Hedge cutting/laying																										
Tree planting																										

6 REFERENCES

BSI (2021) 'Process for designing and implementing Biodiversity Net Gain - Specification (BS 8683:2021)', British Standards Institution.

CIEEM (2017) 'Guidelines on Ecological Report Writing', Chartered Institute of Ecological and Environmental Management, Winchester.

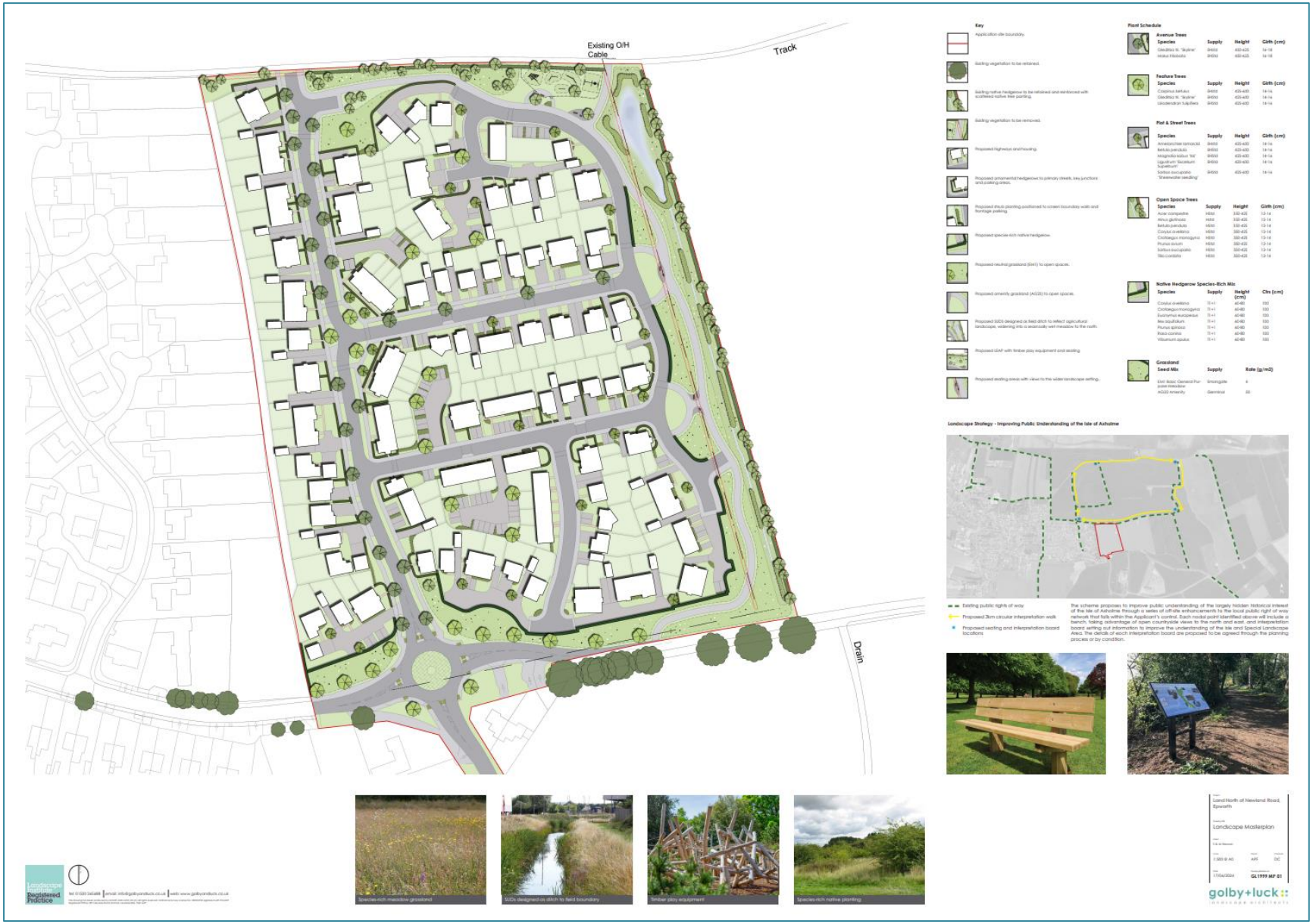
CIEEM (2022) 'Code of Professional Conduct', Chartered Institute of Ecology and Environmental Management, Winchester.

PBA Applied Ecology Ltd. (2023) 'Epworth - Preliminary Ecological Appraisal'.

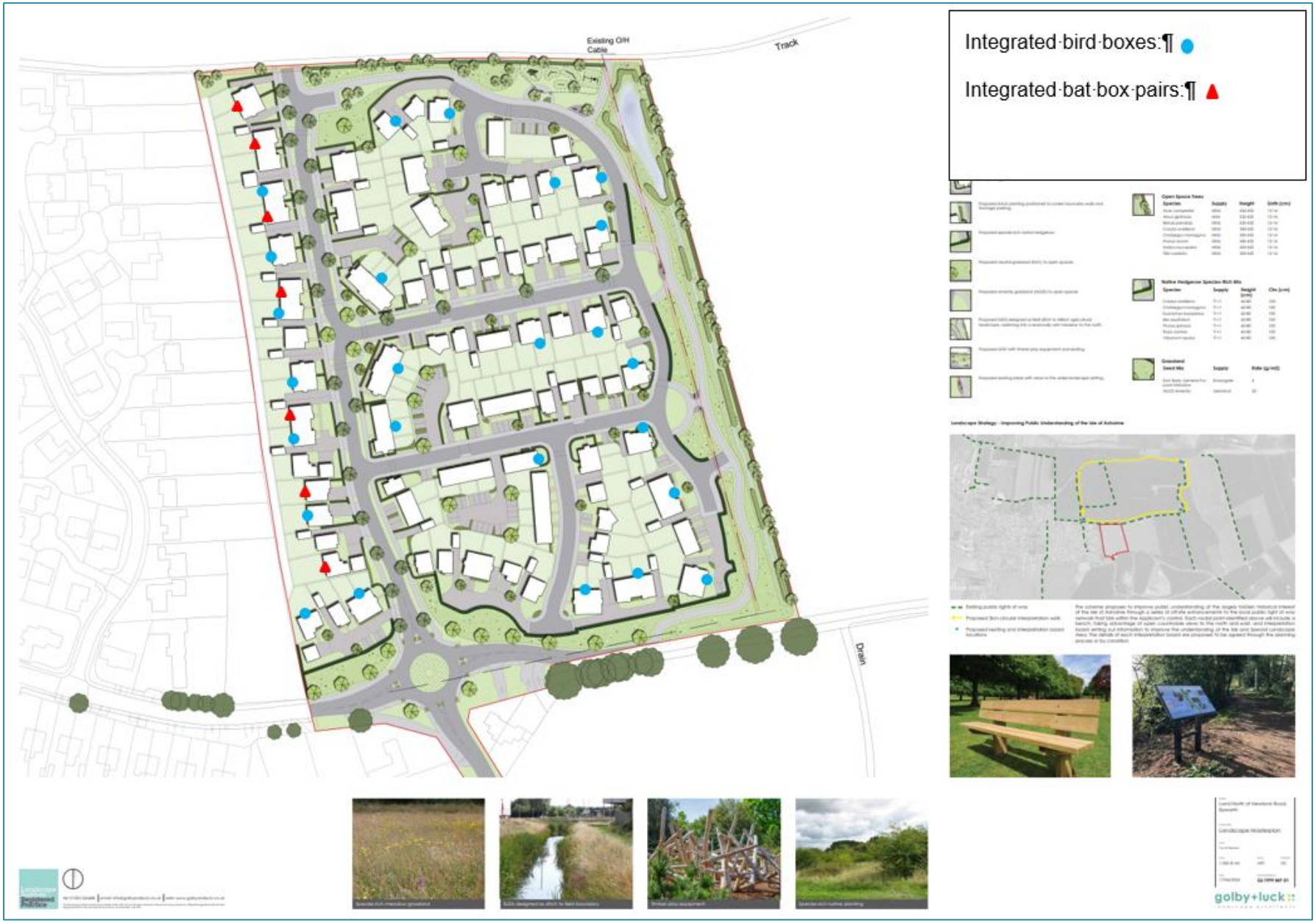
PBA Applied Ecology Ltd. (2024) 'Epworth – Biodiversity Net Gain Assessment'.

UK GOV (1981) *Wildlife and Countryside Act 1981*. Available at: https://www.legislation.gov.uk/ukpga/1981/69 (Accessed: 04 January 2024)

APPENDIX A – SITE & LANDSCAPE PLAN


Existing O/H Cable
Track
Drain
Key
Application site boundary.
Existing vegetation to be retained.
Existing native hedgerow to be retained and reinforced with ecotreed native tree planting.
Existing vegetation to be removed.
Proposed highways and housing.
Proposed ornamental hedgerows to primary streets, key junctions and parking areas.
Proposed shrub planting positioned to screen boundary walls and frontage parking.
Proposed species-rich native hedgerow.
Proposed neutral grassland (Gn1) to open spaces.
Proposed amenity grassland (AG22) to open spaces.
Proposed SUDS designed as field ditch to reflect agricultural landscape, widening into a seasonally wet meadow to the north.
Proposed LAP with timber play equipment and seating.
Proposed seating areas with views to the wider landscape setting.
Plant Schedule
Avenue Trees
Species
Supply
Height
Girth (cm)
Gleditsia tr. 'Sunburst' Ginkgo biloba
Feature Trees
Species
Supply
Height
Girth (cm)
Cornus kousa Gleditsia tr. 'Sunburst' Liquidambar styraciflua
Flat & Street Trees
Species
Supply
Height
Girth (cm)
Amelanchier lamarckii Betula pendula Magnolia kobus 'Nil' Liquidambar 'Worplesdon' Sorbus aucuparia 'Sheerwater Seedling'
Open Space Trees
Species
Supply
Height
Girth (cm)
Acer campestre Alnus glutinosa Betula pendula Corylus avellana Crataegus monogyna Prunus avium Sorbus aucuparia Tilia cordata
Native Hedgerow Species-Rich Mix
Species
Supply
Height (cm)
Ctrs (cm)
Corylus avellana Crataegus monogyna Euonymus europaeus Ilex aquifolium Prunus spinosa Rosa canina Viburnum opulus
Grassland
Seed Mix
Supply
Rate (g/m2)
EM1 Basic General Purpose Meadow
Emorsgate
AG22 Amenity
Germinal
Landscape Strategy - Improving Public Understanding of the Isle of Axholme
Existing public rights of way
Proposed 3km circular interpretation walk
Proposed seating and interpretation board locations
The scheme proposes to improve public understanding of the largely hidden historical interest of the Isle of Axholme through a series of off-site enhancements to the local public right of way network that falls within the Applicant's control. Each nodal point identified above will include a bench, taking advantage of open countryside views to the north and east, and interpretation board setting out information to improve the understanding of the Isle and Special Landscape Area. The details of each interpretation board are proposed to be agreed through the planning process or by condition.
Species-rich meadow grassland
SUDs designed as ditch to field boundary
Timber play equipment
Species-rich native planting
Land North of Newland Road, Epworth
Landscape Masterplan
golby+luck
landscape architects

APPENDIX B – RECOMMENDED BAT & BIRD BOX LOCATIONS


Existing OHL Cable
Track
Drain
Integrated bird boxes:
Integrated bat box pairs:
golby+luck