ECOLOGICAL DESIGN STRATEGY REPORT

at

Land off Moor Lane
Cleckheaton
West Yorkshire
BD19 4LF

Client:
PPJ Developments

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JCA Ref:
23091a/GB

Date of Report:
10/09/2025

JCA Limited
Arboricultural & Ecological Consultants

Quality Assurance

Version	**Desktop Survey Completed:**		**Site Surveyed:**		**Report Completed:**		**Reviewed:**	
	Date	Name	Date	Name	Date	Name	Date	Name
001	N/A	N/A	N/A	N/A	29/08/25	Grace Bramley	29/08/25	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development* and the *CIEEM's Code of Professional Conduct.*

Risk Assessment Completed	N/A
Bio-security Procedure Completed	
Lone Worker Procedure Completed	

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 An Ecological Design Strategy has been requested for **PPJ Development** by Kirklees Council. This is described within Condition 9 of the Decision Notice:

"The Reserved Matters referred to in Condition 1 shall include a Landscape and Ecological Design Strategy (LEDS) to first be submitted to and approved in writing by the Local Planning Authority."

1.1.2 This report will aim to fulfil the planning conditions set by Kirklees Council, with the ultimate aim of enhancing the site's value to wildlife, through the retention of any existing features of value to wildlife, the creation of new habitats and the provision of new roosting/nesting opportunities within the proposed development.

1.2 Terms of Reference

1.2.1 JCA Ltd. have been instructed by **PPJ Developments** to produce an Ecological Design Strategy (EDS).

1.2.2 For this purpose, the following reports, documents and plans were used:

- Brooks Ecological – Preliminary Ecological Appraisal (PEA), Mar 2022 (Reference: ER-5754-01).
- Brooks Ecological –Biodiversity Net Gain Assessment, Jun 2022 (Reference: ER-5754-02).
- AHJ Architects – Proposed site plan, Aug 2025 (Dwg number: 2539 D 20 002).
- JCA Ltd – Biodiversity Enhancement & Management Plan (BEMP), Aug 2025 (Reference: 23091/RPS)

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with guidance outlined in the *National Planning Policy Framework* (NPPF) so that the development takes into account the value of ecosystem services and enhance ecological networks.

1.4 Details of Proposed Development

1.4.1 The development proposed at this site is for the construction of an extra care residential development with associated garden and parking areas.

1.5 Site Description

1.5.1 The site is located at Ordnance Survey (OS) National Grid Reference SE 20782 26788, with nearby postcode BD19 4LF. The site is located approximately 6 km southeast of Bradford town centre. The site consists of an area of scrub, including decorative non-native species spread from neighbouring gardens. The site is surrounded by residential dwellings, access roads and gardens.

1.6 Roles and Responsibilities

1.6.1 Ecological Responsibility

JCA Ltd. are the organisation responsible for the production of this EDS. JCA Ltd. report on both ecological and arboricultural issues throughout the UK. All surveys and reports are undertaken and compiled in accordance with CIEEM's Professional Code of Conduct and the relevant survey guidance.

1.6.2 Landowner and Land Manager

The landowner and manager responsible for the site is PPJ Developments.

1.6.3 Management Organisation(s)

PPJ Developments is responsible for the implementation of the EDS.

1.6.4 Local Planning Authority (LPA)

Kirklees Council are the LPA responsible for reviewing the EDS.

2. Local Biodiversity Action Plan

2.1.1 JCA Ltd aim to incorporate the Local Biodiversity Action Plan (LBAP) habitats within our enhancement plans. JCA Ltd also aim to attract and support LBAP species, through either directly planting LBAP floral species, or creating habitats that will attract these species. The LBAP that covers the site is the Kirklees BAP (KBAP).

2.1.2 The habitats listed within the KBAP can be seen below in **Table 1.**

Table 1: Habitats listed under Kirklees BAP.

Habitat	Key geographical areas in Kirklees
Arable field margins	Pennine foothills
Blanket bog	Uplands
Hedgerows	Pennine foothills
Inland rock outcrop and scree habitats	Valley slopes and quarries in any area
Lowland dry acid grassland	Valley slopes
Lowland heathland	Valley slopes
Hay meadows	Pennine foothills and mid-altitudinal grasslands
Lowland mixed deciduous woodland	Vally slopes and Pennine foothills
Open mosaic habitats on previously developed land	Urban areas
Ponds	Relevant to occurrence of protected species (white-clawed crayfish, great crested newt, water vole *L. natans*)
Reedbeds	Floodplain
Rivers	Floodplain
Traditional orchards	Pennine foothills
Upland flushes, fens and swamps	Uplands
Upland heathland	Uplands
Upland mixed Ashwood	Valley slopes (upland): component of upland oak woodland
Upland oak woodland	Uplands
Wet woodland	Floodplain: also, component of lowland mixed deciduous woodland and upland oak woodland
Wood-pasture & parkland	Pennine foothills and valley slopes
Scrub	Primarily valley slopes and Pennine foothills but can occur elsewhere. Includes open mosaic habitats on previously developed land (mostly in urban areas)
Other semi-natural grassland (wet/rush pasture and rough grassland)	Mid-altitudinal grasslands and Pennine foothills
Riverine	Floodplain: corridors include reedbeds and rivers

2.1.3 The species listed within the KBAP can be seen below in **Table 2.**

Table 2: Species listed under Kirklees BAP.

Group	Common name	Scientific name
Birds	Common bullfinch	*Pyrrhula pyrrhula*
Birds	Common grasshopper warbler	*Locustella naevia*
Birds	Common linnet	*Linaria cannabina*
Birds	Common starling	*Sturnus vulgaris*
Birds	Eurasian curlew	*Numenius arquata*
Birds	Eurasian tree sparrow	*Passer montanus*
Birds	Grey partridge	*Perdix perdix*
Birds	Hawfinch	*Coccothraustes coccothraustes*
Birds	Hedge accentor (dunnock)	*Prunella modularis*
Birds	House sparrow	*Passer domesticus*
Birds	Northern lapwing	*Vanellus vanellus*
Birds	Red grouse	*Lagopus lagopus Scotica*
Birds	Reed bunting	*Emberiza schoeniclus*
Birds	Ring ouzel	*Turdus torquatus*
Birds	Sky lark	*Alauda arvensis*
Birds	Song thrush	*Turdus philomelos*
Birds	Spotted flycatcher	*Muscicapa striata*
Birds	Tree pipit	*Anthus trivialis*
Birds	Twite	*Linaria flavirostris*
Birds	Willow tit	*Poecile montanus*
Birds	Wood warbler	*Phylloscopus sibilatrix*
Birds	Yellow wagtail	*Motacilla flava*
Birds	Yellowhammer	*Emberiza citrinella*
Invertebrates	Northern wood ant	*Formica lugubris*
Invertebrates	Small heath butterfly	*Coenonympha pamphilus*
Invertebrates	Wall brown butterfly	*Lasiommata megera*
Invertebrates	White-letter hairstreak butterfly	*Satyrium w-album*
Fish	Atlantic salmon	*Salmo salar*
Fish	Brook lamprey	*Lampetra planeri*
Fish	Brown trout	*Salmo trutta*
Fish	European eel	*Anguilla anguilla*
Fish	River lamprey	*Lampetra fluviatilis*
Amphibians	Common toad	*Bufo bufo*
Amphibians	Great crested newt	*Triturus cristatus*
Reptiles	Adder	*Vipera berus*
Reptiles	Common lizard	*Zootoca vivipara*
Reptiles	Grass snake	*Natrix natrix*
Reptiles	Slow worm	*Anguis fragilis*
Terrestrial mammals	Brown hare	*Lepus europaeus*
Terrestrial mammals	Brown long-eared bat	*Plecotus auritus*
Terrestrial mammals	Mountain hare	*Lepus timidus*
Terrestrial mammals	Noctule bat	*Nyctalus noctula*
Terrestrial mammals	Otter	*Lutra lutra*
Terrestrial mammals	Polecat	*Mustela putorius*
Terrestrial mammals	Soprano pipistrelle	*Pipistrellus pygmaeus*
Terrestrial mammals	Water vole	*Arvicola terrestris*
Terrestrial mammals	West European hedgehog	*Erinaceus europaeus*

3. Retention of Ecologically Valuable Features

3.1 Pre-development

3.1.1 A summary of the habitats and features present in this report can be seen below.

3.1.2 As listed below, the site consists of three different habitats, as identified within the PEA produced by Brooks Ecological (Ref: ER-5754-01)

- Bramble scrub (UKHab primary code h3d – bramble scrub)
- Scattered trees (UKHab secondary code 32 – scattered trees)

3.1.3 All habitats on site were species poor, consisting of only common species typical of their habitat type.

3.1.4 None of the habitats or features on site were deemed suitable for supporting rare or protected mammals (except bats), birds (except breeding birds), and hedgehogs, nor will the site impact on any designated conservation sites.

3.1.5 The site holds low potential to support foraging and commuting bat species.

3.1.6 The vegetation on-site has the potential to support nesting birds.

3.1.7 The vegetation on-site has the potential to support hedgehogs.

3.2 Features to be Retained and Protected

3.2.1 The site is predominantly bramble scrub, with some scattered trees. However, some of the scrub had already been cleared prior to the PEA survey being undertaken. Small areas of the bramble scrub and some of the trees are being retained under the current plans.

3.3 Features to be Enhanced

3.3.1 The scheme will not see the enhancement of any of the existing habitats on-site.

4. Habitat Creation

4.1 Summary

4.1.1 As the site contains habitats of negligible to medium conservation value, there is some scope to enhance the site's wildlife value post development.

4.1.2 The proposed development will see the creation of the following habits:

- U1 – built-up areas and vegetated gardens
- Secondary code 847 – introduced shrubs (proposed ornamental shrub planting)

4.1.3 Under the proposed scheme used to produce the Biodiversity Net Gain Assessment and Report (ER-5754-02), the proposal was set to deliver a **-63.77%** biodiversity net loss and did not satisfy the trading rules.

4.2 Scrub Planting

4.2.1 Description

Scrub planting in accordance with landscape details are to be incorporated into the scheme.

Incorporating an area of scrub planting will benefit a range of species by providing additional habitats for invertebrates, nesting opportunities for birds, and resting/commuting opportunities for hedgehogs.

4.2.2 Target Habitat Summary

Scrub Planting

Introduced shrub dos does not require a condition assessment but should meet the UKHab habitat description for u1, 847 - introduced shrub.

Definition

Non-native tall phanerophytes, mid phanerophytes or low phanerophytes planted in a garden or park setting.

4.2.3 Species Selection and Specification

All shrubs will be procured and planted in accordance with British Standards BS 8545:2014. The species have been selected for their hardiness, amenity value and their value to local wildlife, either in the form of flowers, berries, seeds or shelter. Species that are poisonous such as Spindle have been avoided. Shrubs will be planted at 2m x 2m spacing for scrub planting and in double-staggered rows for hedgerow planting. The following tables details the specification for the newly planted scrub.

Table 1: Recommended species to enhance scrub planting (additional to planting of non-native ornamentals shrubs).

Botanical Name	Common Name	Size at purchase
Cornus sanguinea	Dogwood	Bare Root
Corylus avellana	Hazel	Bare Root
Crataegus monogyna	Hawthorn	Bare Root
Ilex aquafolium	Holly	Bare Root
Malus sylvestris	Crab apple	Bare Root
Rosa canina	Dog-Rose	Bare Root
Sambucus nigra	Elder	Bare Root
Viburnum opulus	Guelder Rose	Bare Root

4.2.4 Implementation of Introduced Shrub

It is recommended that scrub planting is implemented after the completion of the development. This will avoid damage to scrub from construction hazards such as re-grading of soils near roots and mechanical damage to tree crowns. Care should be taken during development to ensure that soils surrounding the scrub are not contaminated with cement or any other building materials.

Shrub planting should take place between November and March. Before planting, loosen the soil to eliminate compaction and improve drainage. If the existing topsoil is of poor quality, a fertile, freely draining soil with neutral or slightly acidic pH should be imported.

The shrubs should be planted at 2m x 2m spacing. A planting hole will be excavated by hand and will be twice the diameter of the root ball and of equal depth. The sides and bottom of the hole should be roughened with the spade or fork. The new shrub should be offered into the hole and backfilled using the original soil material. Before planting, loosen the soil to eliminate compaction and improve drainage. Soil amendments such as compost should not be added as this has been shown to be detrimental to successful establishment. All newly planted shrub are to be thoroughly watered immediately after planting.

Staking will be required to secure the shrub and prevent losses within the first years of establishment. It may be necessary to angle the stakes to avoid damaging the root ball.

Woodchip mulch should be applied around the base of each shrub to a depth of no more than 75mm. This will conserve water close to the soil surface and inhibit weed growth.

4.2.5 First Year Management of Shrub

Newly planted shrubs are to receive 50 litres of water per week between the months of April and August for the first three years.

New bark mulch should be applied around the base of each shrub to a depth of no more than 75mm, each year for at least the first three years. This will conserve water close to the soil surface and inhibit weed growth.

Any weeds found growing around the newly planted shrubs should be removed annually in subsequent years after planting. This will ensure the uptake of valuable resources such as water, nutrients, and light. This should be done manually without the use of herbicides.

4.2.6 Management Once Established

Remove tree stakes, guards, and ties when they are no longer needed. The scrub is to be split into coups and coppiced on rotation every 7 to 15 years depending on growth rate of shrubs. The best time to cut scrub is during late winter.

After completing any future works such as pruning or felling, all deadwood should be retained on Site and created into log piles in suitable and sheltered positions. This will then provide habitat for flora and fauna such as fungus, invertebrates, and amphibians.

4.2.7 Monitoring

Monitoring is not required as introduced shrub does not require a condition assessment after establishment.

The site should be continually monitored for the introduction and spread of invasive and undesirably non-native plant species, including but not limited to Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, rhododendron *Rhododendron ponticum*, and cherry laurel *Prunus laurocerasus*. If any invasive species are identified, then an appropriately licensed specialist must be contacted who can eradicate and safely dispose of the invasive species.

4.2.8 Scrub planting Implementation, Management and Monitoring Schedule

Table 2: Prescriptions for the implementation, management, and monitoring of scrub planting.

	Year(s)	Action	Prescriptions	Time of year
Implementation	0	Scrub planting	The scrub should be planted at 2m x 2m spacing. All newly planted trees and shrub are to be thoroughly watered immediately after planting. Woodchip mulch should be applied around the base of each shrub to a depth of no more than 75mm. This will conserve water close to the soil surface and inhibit weed growth.	Nov - Mar
Management of Newly Planted Scrub	1 - 3	Watering	Newly planted shrubs to receive 50 litres of water per week for the first three years.	Apr - Aug
	1 - 3	Weeding	Any weeds found growing around the newly planted trees should be removed annually in subsequent years after planting. This should be done by manually without the use of herbicides.	Aug - Sep
	1 - 3	Mulching	New bark mulch should be applied around the base of each tree to a depth of no more than 75mm	Mar - Apr
	1 - 5	Replacement of dead shrubs	Replace dead shrubs, as necessary.	Nov - Mar
	2 - 3	Remove stakes & ties	Remove stakes, guards and ties when they are no longer needed.	All year
Management Once Established	10, 20 & 30	Coppicing	Coppice scrub on rotation every 7-15 years. This is to be undertaken outside of bird nesting season (February to September).	Nov - Jan

5. Faunal Boxes

5.1 Summary

5.1.1 In total, **10** bat boxes on trees, **10** mounted bird boxes on trees, **2** insect towers, and **2** hedgehog shelters have been recommended. The location of each faunal provision to be installed can be seen in **Appendix 3**.

5.2 Bat Roosting Provisions

5.2.1 All British bat species are protected by UK legislation. This is in response to the declines experienced by many bat species over the past century. The cause of the decline could be linked to a number of factors, including habitat loss, pesticide over-use, habitat fragmentation, loss of roost sites and roost disturbance.

5.2.2 All bat species are European Protected Species (EPS) under **Schedule 2** of the **Conservation of Habitats and Species Regulations (CHSR) 2017** (retained in UK law by **CHSR (Amendment) (EU Exit) 2019**), with additional protections under **Schedules 5 and 6** of the **Wildlife & Countryside Act (WCA) 1981 (as amended)**. Additionally, six species (including soprano pipistrelles and noctules) are priority species under **Section 41** (**S41**) of the **Natural Environment & Rural Communities (NERC) Act 2006**, designating them as species of principal importance for the purpose of conserving biodiversity.

5.2.3 Pipistrelles typically roost within structures, but also use tree holes and crevices, whereas noctules are primarily tree roosting species. Therefore, the types of bat boxes recommended for the Proposed Development will provide roosting opportunities for a range of bat species.

5.2.4 Box Selection & Positioning: There is a wide range of different bat boxes available, including both internal and external designs. External designs include the traditional wooden and woodcrete boxes. Internal designs include boxes that can be built into the walls, with a front that mimics the brickwork of the building, essentially becoming invisible. Other roost opportunities include cutting slots into soffit boxes, using bat bricks that lead into cavity walls and using lifted tiles to allow access into the loft.

5.2.5 **Bat Boxes** (on trees) should be positioned at least 5m high, with their front facing **south**. The selected boxes should be constructed of woodcrete or similar in order increase their life expectancy. A range of different designs should be selected in order to increase the likelihood of bats roosting within the site.

5.2.6 The specifications of all bat bricks/boxes recommended to be installed onsite post-development are detailed below in the table below.

Table 3: Bat roosting opportunities to be installed as part of the Proposed Development.

Bat Brick/Box	Number to be Installed	Description	Details
1FD Schwegler Bat Box (or a comparable design) 	10 (on trees)	The Schwegler 1FD has been developed specifically for smaller bats as both the interior and the type and size of the entrance hole match the requirements of smaller species. It features a special layout inside, such as a domed roof, an increased interior height and two grooved internal wooden front panels with precise spacing between them. This model has proved highly effective as a nursing area. The front panel can be removed for cleaning and inspection. This box is designed to be sited on trees using the galvanised steel hanger and aluminium nail provided. Schwegler bat boxes are backed by conservation organisations, government agencies and forestry experts and have the highest occupation rates of all nest boxes. They are carefully designed to mimic natural roost sites and to provide a stable environment.	Dimensions Height: 360mm Diameter: 160mm Weight: 4.8kg

5.3 Bird Nesting Provisions

5.3.1 In the UK there are approximately 600 species of bird, each occupying a different habitat and present in a different region of the country. Many birds regularly visit gardens and will quickly adopt to new nest boxes, but only when the right box design is selected and situated correctly. Each species prefers a specific nest box design, with different dimensions and hole sizes.

5.3.2 The specifications of all bird boxes recommended to be installed onsite post-development are detailed below in the table below.

Table 4: Bird nesting opportunities to be installed as part of the Proposed Development.

Bird Box	Number to be Installed	Description	Details
Vivara Pro Seville 32mm WoodStone Nest Box (or comparable design)	10 (on retained trees)	Unlike a traditional wooden nest box, these boxes will not rot away or deteriorate and are guaranteed for 10 years. This robust material safeguards against attacks from predators such as woodpeckers, cats and squirrels, whilst also providing a well-insulated interior with a consistent internal temperature (important for breeding). These 32mm hole nest boxes are suitable for blue tits, tree sparrows, house sparrows, great tits, blue tits, nuthatches, coal tits and pied flycatchers and they are available in brown, green or grey to	Dimensions Height: 310mm Width: 200mm Length: 200mm Weight: 6.9kg Entrance hole

		complement both natural woodland and garden settings.	diameter: 32mm

5.3.3 Bird boxes on **trees** should be installed facing in a **northerly** to **easterly** direction, thus avoiding strong sunlight and wet winds. Boxes should be installed as to ensure birds have a clear flight path to the bird box without any clutter directly in front of the entrance.

5.3.4 The installation of all bird boxes is to be undertaken immediately after the completion of the Proposed Development.

5.4 Invertebrate Provisions

5.4.1 Insects are the primary food source for many of the rare or protected animals that regularly visit gardens. Thus, encouraging insects into a site will then attract other species, such as birds and bats.

5.4.2 To ensure the Site maintains its' value for other invertebrate species**, two** insect towers should be placed attached to a suitable fence, post, or other structure. A suitable Insect Tower design by CJ Wildlife can be seen below in **Figure 1**. This particular model provides a variety of habitats for various insects, including butterflies, lacewings, and ladybirds.

Figure 1: Example of an Insect Tower by CJ Wildlife.

5.5 Hedgehog Provisions

5.5.1 Hedgehog numbers have declined by 90% over the past 50 years due to a number of factors including habitat loss, fragmentation and parasites. Providing shelter and a means of dispersal in gardens will encourage hedgehogs to visit the site and utilise the natural space.

5.5.2 Access to gardens has become increasingly limited for hedgehogs, as fences and walls block their dispersal. A simple solution is to create a 13x13cm access hole at ground level into fences to allow hedgehogs to freely move between green spaces (Bunnell, 2014).

5.5.3 Hedgehog shelters are simple to construct. Situate in a quiet corner of a garden, preferably under vegetation. Dried leaves or hay are placed inside for bedding (Bunnell, 2014).

5.5.4 Access to gardens has become increasingly limited for hedgehogs, as fences and walls block their dispersal. A simple solution is to create a 13x13cm access hole at ground level into fences in each garden to allow hedgehogs to freely move between green spaces (Bunnell 2014). These 'hedgehog highways' (PTES, 2018) should have appropriate signage installed to indicate their purpose and stipulate that they should remain open.

5.5.5 Providing shelter for hedgehogs within green spaces will encourage this species to visit the Site and utilise the natural space. Therefore, **two** hedgehog shelters should be placed in a sheltered position.

5.5.6 Hedgehog shelters are simple to construct and should be situated in a sheltered, undisturbed area preferably under vegetation with dried leaves or hay placed inside for bedding (Bunnell, 2014). An example of a hedgehog shelter is shown below in **Figure 2.**

Figure 2: Example of hedgehog shelter *in-situ.*

5.6 Management and monitoring

5.6.1 Monitoring of faunal boxes and wildlife features over a 5-year period is recommended. Monitoring is key to understanding how habitat and wildlife features are being used by wildlife on site after the development. Without monitoring, and effective and adaptive management scheme cannot be maintained and revised.

6. Ecological Recommendations

6.1 Lighting

6.1.1 The site is suitable for bats which are nocturnal species sensitive to lighting. This highlighted as the site sits within the Kirklees Bat Alert Zone.

6.1.2 As such, the following lighting guidance measures have been provided in line with recommendations provided by the Institute of lighting Professionals (ILP) and the Bat Conservation Trust (BCT) (ILP & BCT, 2023). The proposed development should seek to:

- Use lighting which is functional and directional only.
- Ensure lighting will not illuminate features of ecological interest such as retained hedgerows, trees or woodlands.
- Prohibit the use of floodlight style lighting on-site. Any lights present must be on timers/motion sensors and not permanently turned on during hours of darkness (from sunset to sunrise).
- Plant natural shrub buffers to minimise light spill onto the site's adjacent habitats.
- Maintain dark zones on site to preserve wildlife areas of low light pollution.
- Use the minimum light levels necessary for the relevant task/function, this may equate to reducing light intensity, and/or using the minimum number of light sources or minimum column height.
- Use hoods, louvres or other luminaire design features to avoid light spill onto retained and newly created areas of vegetation likely to be used by foraging and commuting bats.
- Use light sources that emit minimal ultra-violet light to avoid attracting night-flying invertebrate species which in turn may attract bats to the light (BCT, 2009).
- Use recessed internal light fixtures.

6.1.3 **Note:** Special attention should be made to ensure that no light spill falls upon any of the trees within Ings Grove Park that is directly adjacent to the site, either pre- or post-development.

6.1.4 Proposed dark corridors containing all bat bricks and boxes, and connecting the site to Ings Grove Park can be seen in **Appendix 3**.

7. Conclusion

7.1.1 JCA Limited (Ltd.) have been instructed by PPJ Developments to produce an Ecological Design Strategy (EDS) in association with the planning application proposed for **Land off Moor Lane**.

7.1.2 The development proposed at this site is for the construction of an extra care residential development with associated garden and parking areas.

7.1.3 The site is predominantly hard standing, meaning the site has high potential to increase its biodiversity value through planting of new wildflowers, shrubs and trees. New habitat creation will deliver a biodiversity net loss of **-63.77%** whilst also satisfying the metric Trading Rules.

7.1.4 In accordance with Chapter 15 of the NPPF and the BS 42020 (BSI, 2013) developments should follow the mitigation hierarchy, thereby retaining habitats as the first option, minimising impact as the second and, if these options are not available, providing compensatory measures.

7.1.5 The site has potential to support bats, birds, invertebrates, and hedgehogs. As a result, **10** bat boxes (on trees), **10** bird boxes on trees, **2** insect towers, and **2** hedgehog shelters have been recommended. The location of each faunal provision to be installed can be seen in **Appendix 3.**

7.1.6 Monitoring of faunal boxes and wildlife features over a 5-year period is recommended to ensure they are being effective. Should it be identified that the ecological provisions are no longer fit for purpose, revisions should be made to the management plan of the site.

7.1.7 The site is suitable for bats, which are nocturnal species sensitive to lighting. As such, guidance relating to appropriate lighting on site has been provided in **Section 6.1**.

8. References

External References

JCA Ltd. – Small Site Metric & Report, Jul 2021 (14607g/JE).

JCA Ltd. – Bat Emergence Survey Report, Aug 2024 (22040b/ADo).

JCA Ltd. - 22040a Statutory Biodiversity Metric Calculation Tool.

Fda Landscape – Landscape Masterplan DRAFT, Nov 2024 (Dwg No: R/2815/1).

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Websites:

Bat Conservation Trust (BCT). http://www.bats.org.uk

Multiple-Agency Geographic Information for the Countryside (MAGIC). http://www.magic.gov.uk

Natural England. http://www.naturalengland.org.uk/

Relevant Legislation:

Wildlife and Countryside Act (WCA) 1981 (as amended)

- http://jncc.defra.gov.uk/page-3614
- https://www.legislation.gov.uk/ukpga/1981/69/contents

The Conservation of Habitats and Regulations (CHSR) 2017.

- https://www.legislation.gov.uk/uksi/2017/1012/contents/made

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

- https://www.legislation.gov.uk/uksi/2019/579/contents/made

Natural Environment and Rural Communities (NERC) Act 2006

- https://www.legislation.gov.uk/ukpga/2006/16/contents

Environment Act 2011

- https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

Protection of Badgers Act 1992

- https://www.legislation.gov.uk/ukpga/1992/51/contents

Countryside and Rights of Way Act 2000

- https://www.legislation.gov.uk/ukpga/2000/37/contents

Appendices

Appendix 1: UKHab Habitat Map

Taken from the Preliminary Ecological Appraisal (PEA) by Brooks Ecological, Mar 2022 (ER-5754-01).

Appendix 1 Habitats and Ecological Features

Appendix 2: Landscaping Plans

Drawn Scale 1:50

00m 02m 05m

Drawn Scale 1:100

00m 02m 05m 10m

N

Issue Purpose: PLANNING APPLICATION

AHJ architects

The Courtyard
12a Commercial Road
Skelmanthorpe
Huddersfield
HD8 9AA

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AHJ architects

Client	PPJ Developments
Project	2539 : Moor Lane : Residential
Title	Proposed Site Plan
-	
Drawing Number	2539 – D – 20 – 002 –
Revision	–
Issued From	
Date	August 2025
Scale	1:250 @ A1
Drawn	BH Auth BH

Do not scale from this drawing. Work to figured dimensions, and any discrepancy to be reported to the Architect.

Refer to larger scale drawings where available.

Appendix 3: Faunal Enhancement Plan

JCA LIMITED

Site name & address

Land Off Moor Lane
Cleckheaton
West Yorkshire
BD19 4LF

Key

Faunal Boxes -

- Bird Boxes
- Bat Boxes
- Insect Towers
- Hedgehog Shelters

Scale

0 10 20 m

Site	Client
Land Off Moor Lane	PPJ Developments
Project	**Author**
23091 BEMP	Rebecca Petch-Smith
Plan ref	**Revision**
23091/RPS	1

Appendix 4: Proposed Development Plan

Drawn Scale 1:50

00m 02m 05m

Drawn Scale 1:100

00m 02m 05m 10m

N

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Drawn	BH Auth BH

Do not scale from this drawing. Work to figured dimensions, and any discrepancy to be reported to the Architect.

Refer to larger scale drawings where available.

Appendix 5: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management.

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Grace Bramley, Graduate Ecologist

BSc (Hons) Design and Innovation with Environmental Science

Grace joined JCA in 2024 after completing her degree from The Open University with a first-class honour's degree in design and environmental science. Prior to this she spent six years working in the automotive industry followed by three years in the chemical industry. She is conducting Preliminary Ecological Appraisal and Biodiversity Net Gain Assessments and working towards her protected species licenses.

The Information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed

.....

Grace Bramley *BSc (Hons)*

12/12/2024

Approved by

.....

Adam West *BSc (Hons), ACIEEM*

29/08/2025

For and on behalf of ***JCA Ltd***

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Email : info@jcaac.com
Web : www.jcaac.com

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

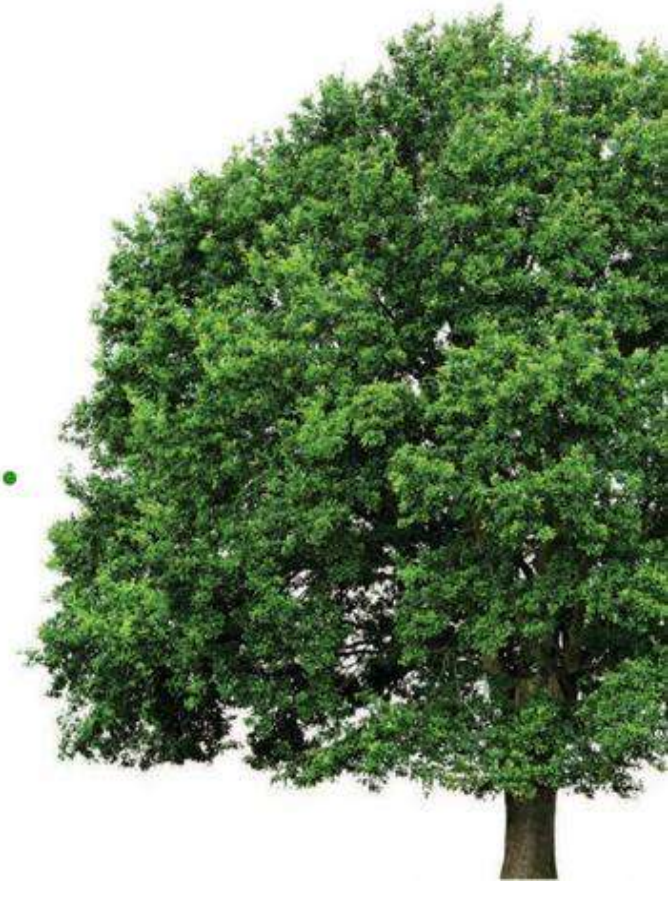
- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

JCA Limited

Arboricultural & Ecological Consultants



HEAD QUARTERS

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