

**BIODIVERSITY ENHANCEMENT
PLAN SURVEY & REPORT**

at

**Land off Cockley Hill Lane
Huddersfield
West Yorkshire
HD5 0HH**

**JCA Ref:
23469a/JF**

**Date of Report:
15/01/2026**



Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Checked:	
	Date	Name	Date	Name	Date	Name	Date	Name
Planning	N/A	N/A	N/A	N/A	12/01/26	James Foster	14/01/26	Alex Donovan

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*

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1. Introduction

1.1 Purpose of the Report

1.1.1 A Biodiversity Enhancement plan has been requested for **Land off Cockley Hill Lane**, by Kirklees City Council. This is described within Condition 18 of the Decision Notice:

Condition 18

18. Prior to the commencement of development, details of a bio-diversity habitat enhancement scheme shall be submitted for the written approval of the Local Planning Authority. The scheme shall include details and potential locations for bat / bird roost opportunities within the new development and surrounding retained trees. The approved scheme shall be implemented prior to the first occupation of any dwellings / plots containing such opportunities.

Reason: To accord with the guidance contained in Part 11 of the National Planning Policy Framework “Conserving and enhancing the natural environment”.

1.1.2 This report will aim to fulfil the planning conditions set by Kirklees City Council, with the ultimate aim of enhancing the site’s value to wildlife, through 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 **Gleeson** to produce a Biodiversity Enhancement Plan.

1.2.2 The following reports and plans have been used in the production of the BEP and should be read in conjunction with this report:

- Proposed Site Layout RM Application Site (2021/61/91507/W – DWG: C101-B).
- Proposed Site Layout Application Site (2021/62/92527/W – DWG: C201 - B).
- Brooks Ecological, Preliminary Ecological Appraisal, Cockley Lane, Kirkheaton. Report Reference: ER-5337-01. Report Date 20/04/2021.
- Brooks Ecological, Preliminary Ecological Appraisal, Cockley Lane, Kirkheaton. Report Reference: ER-6724-01. Report Date 11/07/2023.

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 83 residential properties.



1.5 Site Description

1.5.1 **Land off Cockley Hill Lane** is situated approximately 4 km west of the centre of Huddersfield, at grid reference: **SE 18323 17950**.

1.5.2 The site is located to the east of Kirkheaton, with residential properties bordering the Site's northern and western boundaries. There is mixed farmland to the southeast and scrub/young woodland further afield to the north and watercourses with woodland strips further afield to the west. Laneside Quarry is located to the southeast, with ecological mitigation land located along its southern boundary.

1.5.3 The site consists of the following habitats.

- g4 – Modified grassland.
- g3c – Other neutral grassland: 10 – Scattered scrub, 14 – Scattered rushes.
- w1g – Other woodland; broadleaved.
- u1b – Developed land sealed; surface.
- h2a – Native hedgerow.
- 33 – Line of trees.
- 34 – Ecological valuable line of trees.



2. Local Biodiversity Action Plan

2.1.1 If possible, JCA Ltd aim to incorporate Local Biodiversity Action Plan (LBAP) habitats within our enhancement plans. We 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 **Land off Cockley Hill Lane** is the Kirklees BAP.

2.1.2 The habitats listed within the Kirklees BAP are;

- Arable field margins.
- Blanket bog.
- Hedgerows.
- Inland rock outcrop and scree habitats.
- Lowland dry acid grassland.
- Lowland heathland.
- *Hay meadows.
- Lowland mixed deciduous woodland.
- Open mosaic habitats on previously developed land.
- Ponds
- Reedbeds
- Rivers
- Traditional orchards
- Upland flushes, fens and swamps.
- Upland heathland.
- **Upland mixed ashwoods.
- Upland oakwoodland.
- Wet woodland
- Wood-Pasture & parkland.
- Scrub.
- Other semi-natural grasslands (wet/rush pasture and rough grassland).
- Riverine.

2.1.3 The species listed within the Kirklees BAP are;

- Black grouse
- Bullfinch
- Cuckoo
- Grasshopper warbler
- Linnet
- Starling
- Corn bunting
- Corn crake
- Curlew
- Tree sparrow
- Nightjar
- Turtle dove
- Bittern
- Grey partridge



- Hawfinch
- Dunnock
- House sparrow
- Lesser redpoll
- Lapwing
- Red grouse
- Reed bunting
- Ring ouzel
- Skylark
- Song thrush
- Spotted flycatcher
- Tree pipit
- Twite
- Willow tit
- Wood warbler
- Yellow wagtail
- Yellowhammer
- Northern wood ant
- Small heath
- Wall brown
- White-letter hairstreak
- Salmon
- Brook lamprey
- Brown trout
- European eel
- River lamprey
- Adder
- Common lizard
- Common toad
- Grass snake
- Great crested newt
- Slow-worm
- Brown hare
- Brown long-eared bat
- Mountain hare
- Noctule
- Otter
- Polecat
- Soprano pipistrelle
- Water vole
- Hedgehog



3. Ecologically Valuable Features

3.1 Pre-development

3.1.1 For a comprehensive description of the site's current ecological value please see the accompanying Preliminary Ecological Appraisal report (Ref: ER-5337-01 & ER-6724-01) produced by Brooks Ecological. A summary of the habitats and features present in this report can be seen below.

3.1.2 The site consists of the following habitats.

- g4 – Modified grassland.
- g3c – Other neutral grassland: 10 – Scattered scrub, 14 – Scattered rushes.
- w1g – Other woodland; broadleaved.
- u1b – Developed land sealed; surface.
- h2a – Native hedgerow.
- 33 – Line of trees.
- 34 – Ecological valuable line of trees.

3.1.3 Report Results:

- Amphibians: The south of the site contains good quality terrestrial habitats and there is suitable breeding habitat within 500m with potentially suitable habitat connectivity. There is a good population of great crested newts within 480m – 980m of the site, however the likelihood of great crested newts being present on site was judged to be relatively low.
- Birds: The hedgerows and lines of trees on site provide nesting opportunities for common garden bird species and is unlikely to have value for ground nesting birds.
- Bats: Several trees present within the western treeline contain potential roosting features. However, these trees are not programmed to be impacted by the proposed development. The boundary tree lines were also judged to have importance for commuting and foraging bats. A bat activity survey was recommended.
- Badgers: No evidence of badger activity was observed. The absence of badgers can be reasonably concluded.
- Reptiles: No field evidence of reptiles was found. Reptiles are assessed to be likely absent from the site.
- Invasive non-native species: No invasive non-native species were found during the survey. Absence was not concluded due to the timing of the survey during sub-optimal seasons.



4. Faunal Boxes

4.1 Summary

4.1.1 In total **8** integrated bat boxes on the proposed buildings, **2** bat boxes on trees, **8** swift boxes on the proposed buildings, **4** standard bird boxes on trees, **7** insect boxes **4** hedgehog shelters, **37** hedgehog holes, and **1** amphibian hibernacula have been recommended. The location of each faunal box/wildlife feature to be created can be seen in **Appendix 2**. Examples of bat boxes, bird boxes, insect boxes, hedgehog shelters and amphibian hibernacula can be seen in **Appendix 3 – 8**.

4.2 Bat Roosting Opportunities

4.2.1 All British bat species are protected by both UK and EU 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.

4.2.2 The Common Pipistrelle is the most abundant species in the UK. It is also the species most likely to roost within modern buildings. The boxes incorporated into this enhancement plan are therefore aimed at attracting Common Pipistrelle bats.

4.2.3 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. Bat Boxes should be positioned at least 5m high, with their front facing south, southwest or southeast (as recommended by the BCT). 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.

4.2.4 Where lighting is required, conditions should be imposed to ensure the impact of the lighting on the bats is kept to a minimum. Lighting will be situated away from areas of both retained and new trees and shrubs. Any lighting should be of a low level of luminance. The use of low pressure sodium lamps or high pressure sodium lamps is recommended instead of mercury or metal halide lamps. Overall levels on site should be as low as planning permits. Lighting column height near hedgerows or trees should be kept to a minimum as this reduces the ecological impact. Where lighting can be directed downwards at a more acute angle, taller columns can be used. Please refer to the Bat Conservation Trust's Bats and Lighting in the UK (2009).

4.2.5 **8** integrated bat boxes on the proposed buildings and **2** bat boxes should be placed on suitable trees, in a sheltered position with a southerly positioning (see **Appendix 2**).

Table 1: Suggested Bat roosting opportunities to be installed as part of the proposed development.



Bat Box	Description	Details
<p>lbstock Enclosed Bat Box 'C' (or a comparable design)</p> <p>8 on proposed buildings</p> 	<p>The Enclosed Bat Box 'C' from lbstock is designed for the pipistrelle bat. It is ideal for new builds as it can be integrated directly into the brickwork to produce a discrete but attractive home for bats.</p> <p>The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats. The bottom entrance means that no maintenance is required as droppings will simply fall out the bottom.</p> <p>This lbstock Bat Box C is available in two sizes and three colours (red, blue or cream). The box is both durable and fully frost resistant.</p>	<p>Dimensions:</p> <p><u>Small Box</u></p> <p>Height: 215mm Width: 215mm Depth: 105mm Weight: 6.7kg</p> <p><u>Large Box</u></p> <p>Height: 290mm Width: 215mm Depth: 105mm Weight: 9.2kg</p>
<p>1FD Schwegler Bat Box (or a comparable design)</p> <p>2 on existing mature trees</p> 	<p>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.</p> <p>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.</p> <p>This box is designed to be sited on trees using the galvanised steel hanger and aluminium nail provided.</p> <p>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.</p>	<p>Dimensions:</p> <p>160 x 360 mm</p> <p>Weight: 4.8kg</p>

4.3 Bird Boxes

4.3.1 In the UK there are approximately 600 species of bird, each occupying a different habitat and present in a different region of the country. A small number of these regularly visit gardens and will quickly adopt 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. It is recommended that a breeding bird survey is carried out on site to inform and produce a robust and tailored Biodiversity Enhancement Report for this site.


4.3.2 **Swift boxes:** Swift boxes should be positioned directly under the building’s eaves, at least 5m from ground level and out of direct sunlight. The openings should not be obstructed by vegetation or other structures. The openings should face north, north-east or north-west. Boxes should ideally be constructed out of woodcrete to increase their life expectancy, or could be in the form of internal ‘swift bricks’. The entrance hole should be around 3cm by 5cm. Swift boxes can also be used by other species such as house sparrow and starling.

4.3.3 **Standard bird boxes:** Birds such as most tit species, tree sparrows and nuthatches prefer standard nest boxes with a small hole opening and a perch at the entrance. The size of hole can vary depending on the bird species.

4.3.4 **8** swift boxes on the buildings and **4** standard bird boxes should be placed on suitable trees, in a sheltered position (see **Appendix 2**).

Bird Box	Description	Details
<p>Woodstone Build-in Swift Nest Box (or comparable design)</p> <p>8 on proposed buildings</p> 	<p>The swift nests at over 5m in height inside cavities in roof spaces. Maintenance and renovation of roofs often leads to a lack of suitable nesting opportunities. Providing specially adapted nest boxes is a practical way of increasing nesting opportunities for swifts.</p> <p>The nest box is constructed of woodstone which is very durable and will not rot away like traditional nest boxes. The entrance type is preferred by swifts and discourages use by other species.</p>	<p>Dimension</p> <p>Height: 180mm</p> <p>Width: 420mm</p> <p>Depth: 155mm</p>
<p>Vivara Pro Seville 32mm WoodStone Nest Box (or comparable design)</p> <p>4 on existing mature trees</p>	<p>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).</p>	<p>Dimensions</p> <p>Height: 310mm</p> <p>Width: 200mm</p> <p>Length: 200mm</p> <p>Weight: 6.9kg</p> <p>Entrance hole diameter: 32mm</p>



	<p>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 complement both natural woodland and garden settings.</p>	
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4.4 Insect Boxes

- 4.4.1 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 their predators, such as birds and bats.
- 4.4.2 Many insect species will hibernate over winter in their adult state, such as butterflies, ladybirds and lacewings. In nature, these insects would hibernate within features such as leaf litter or other plant debris. However, gardeners tend to over-maintain their gardens, often tidying these features away in the autumn. Therefore, these species can be encouraged to stay at the site all year round by erecting suitably designed boxes (Kirby 2003).



Figure 1: Insect Shelter (can be created through own design).



4.4.3 **7** boxes should be placed on fences, walls or posts between 0.5 to 2m, in a sheltered position (see **Appendix 2**).

4.5 Hedgehog shelter

4.5.1 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.

4.5.2 Hedgehog shelters are simple to construct. Situate in a quiet, sheltered corner of a garden, preferably under vegetation or covered with dried leaves, twigs and other vegetation. Dried leaves or hay are placed inside for bedding (Bunnell, 2014). Care should be made not to disturb the shelter during the summer – if it is being used as a nursery the female could potential abandon the nest.

4.5.3 Clean shelter once a year, preferably after winter use (late March to Early April).

4.5.4 If the house is treated for fleas use only organic pyrethrum powers. Dog and cat treatments are too strong and may kill hedgehogs.

4.5.5 **4** hedgehog shelters should be placed in gardens in a sheltered position (see **Appendix 2**).

4.5.6 An Example of a hedgehog shelter can be seen in **Appendix 6**.

4.6 Hedgehog Holes

4.6.1 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).

4.6.2 Hedgehog holes should be placed in the fences of the gardens preferably in a vegetated and sheltered position.

4.6.3 **37** hedgehog holes have been recommended (see **Appendix 2**).

4.7 Amphibian Hibernacula

4.7.1 Dead wood and a thick litter layer provides a moist stable environment for overwintering amphibians. Providing a deep litter layer (100mm or more) of mainly deciduous bark mulch artificially creates a litter layer. Composted bark mulch is even better as it compacts well and holds moisture more effectively.

4.7.2 Fallen dead wood under which newts can shelter and feed may be supplemented with cut logs. These can be placed directly on the ground or in a shallow excavation with spoil and turf in between and on top of the logs. Where possible, log piles should be positioned in shady places where sunlight will not allow the logs to dry out.



- 4.7.3 Stone, rock, clean brick rubble (without cement residues) and old or misfired bricks can be used in a similar way to logs to provide shelter and feeding areas. Building successful rock and log piles can be time consuming and requires careful attention to the timing of delivery and spreading of materials. As with log piles, stone can be placed in shallow excavations made by taking spoil to spread amongst and over the logs or stones. On clay or slow-draining soils, great care must be taken to ensure drainage is adequate and the refuge is not in a flood zone, as the lower part could become waterlogged in heavy rain.
- 4.7.4 The position for rubble heaps can be anywhere within 200 metres of a pond, but in general, the closer they are to the ponds, the better. Refuges that blend into the environment are best. Avoid unattractive, messy heaps which have the appearance of fly-tipping as these may generate complaints. Encouraging moss and grass to grow on wood/stone piles by adding soil to the top and inside of heaps may increase the humidity and stability of the environment.
- 4.7.5 **1** amphibian hibernacula has been recommended (see **Appendix 2**).
- 4.7.6 An example of an amphibian hibernacula can be seen in **Appendix 7**.



5. Conclusion

5.1 Retention of Ecologically Valuable Features

5.1.1 The site contains habitats of moderate conservation value but are deemed to be common in the local vicinity. The planting of individual trees and shrubs and creation of species-rich grasslands will mitigate for the lost habitats and increase foraging and sheltering opportunities for bats, birds and invertebrates.

5.2 Faunal Boxes and Wildlife Features

5.2.1 **8** integrated bat boxes on the proposed buildings, **2** bat boxes on trees, **8** swift boxes on the proposed buildings, **4** standard bird boxes on trees, **7** insect boxes **4** hedgehog shelters, **37** hedgehog holes, and **1** amphibian hibernacula have been recommended. The location of each faunal box/wildlife feature to be created can be seen in **Appendix 2**. Examples of bat boxes, bird boxes, insect boxes, hedgehog shelters and amphibian hibernacula can be seen in **Appendix 3 – 8**.

5.3 Management and monitoring

5.3.1 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 a scheme can't be maintained and revised.

5.3.2 It is recommended that a full management plan is created to inform people what is required on site to maintain biodiversity. Management plans can also be useful at later stages for fund bidding, by demonstrating that the proposed actions are a product of a logical decision-making process.



6. References

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Bat Survey Guidelines: Good Practice Guidelines (2007). Bat Conservation Trust (BCT).

Bat Workers Manual (3rd Edition 2004). A. J. Mitchell-Jones & A. P. McLeish. Joint Nature Conservation Committee (JNCC).

Bunnell, T. (2014) *The disappearing Hedgehog*. United Kingdom: Independent Publishing Network.

Kirby, P. (2013) *Habitat management for invertebrates: A practical handbook*. Exeter: Pelagic Publishing.

Perrow, M.R. (2008) *Handbook of ecological restoration: Volume 1, principles of restoration: V. 1: Principles of restoration*. Edited by Martin R. Perrow and Anthony J. Davy. Cambridge, United Kingdom: Cambridge University Press.

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Reports:

Brooks Ecological, Preliminary Ecological Appraisal, Cockley Lane, Kirkheaton. Report Reference: ER-5337-01.

Brooks Ecological, Preliminary Ecological Appraisal, Cockley Lane, Kirkheaton. Report Reference: ER-6724-01.

Websites:

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

Google Maps. <<http://maps.google.co.uk/>>

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

National Biodiversity Network (NBN) Gateway. <data.nbn.org.uk>

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

Nature on the Map. Natural England. <www.natureonthemap.org.uk>

Relevant Legislation:

Wildlife and Countryside Act 1981 <<http://jncc.defra.gov.uk/page-3614>>

Conservation (Natural Habitats, &c.) Regulations 1994 (The Habitats Directive) (Amended 2010) <<http://www.legislation.gov.uk/ukxi/2010/490/contents/made>>

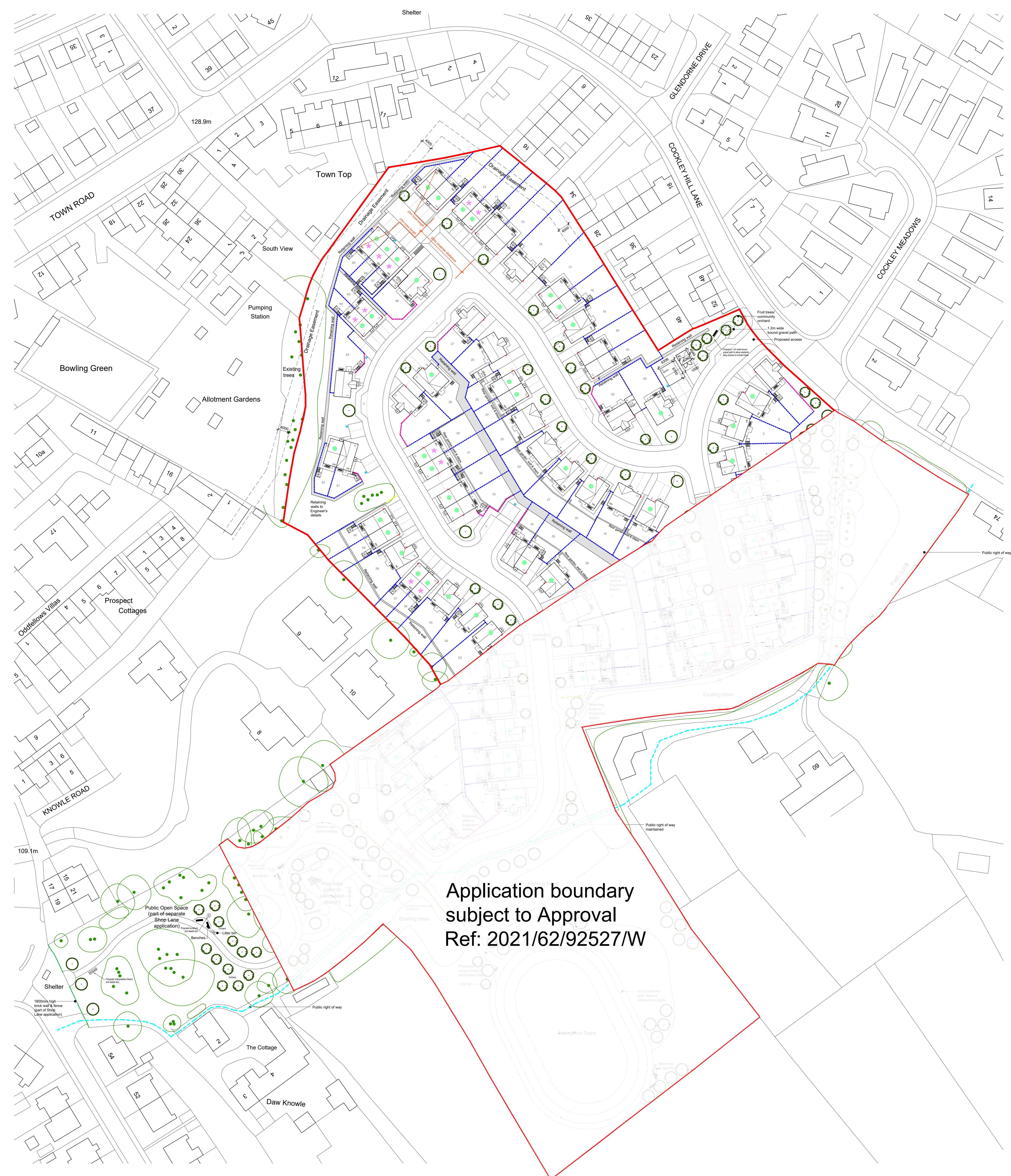
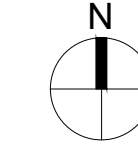
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Appendices




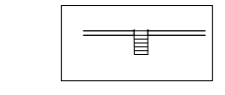



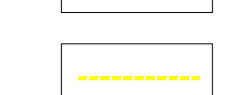
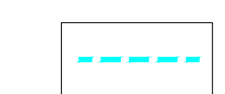
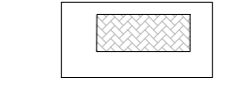
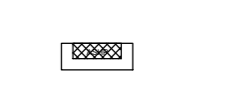
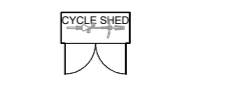




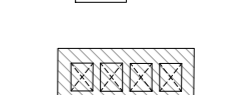


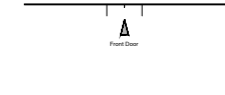

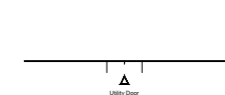
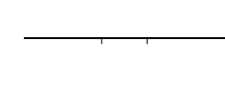




Appendix 1: Proposed Development Plan



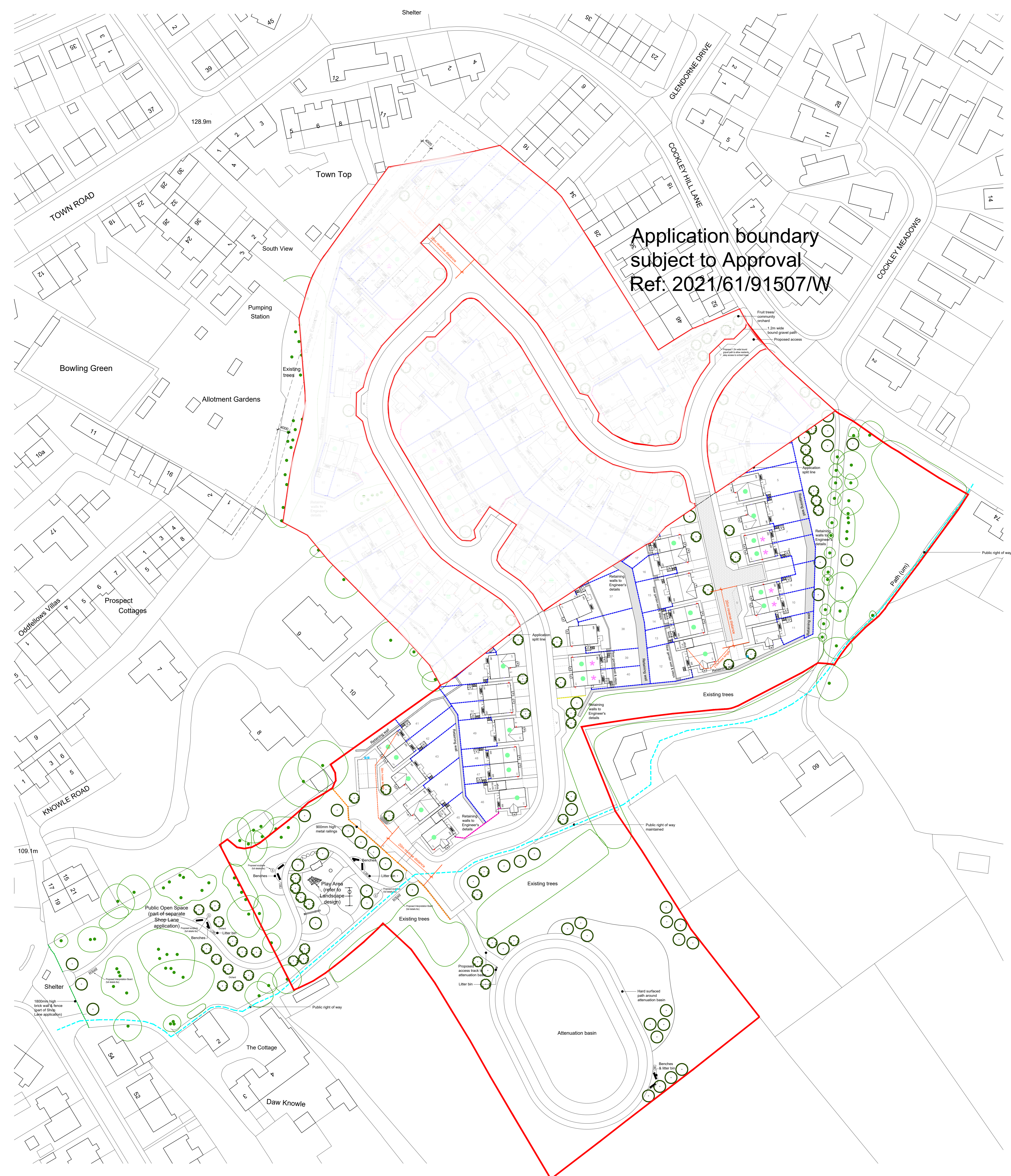
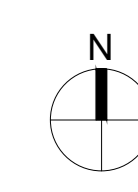


**Application boundary
subject to Approval
Ref: 2021/62/92527/W**

Boundary Treatments & Materials Key

-  Facing Stone - Forticrete Pitched Face Buff Walling
-  Roof Tiles - Sandtoft Calderdale Dark Grey Tiles
-  Retaining walls (details to be confirmed by Engineer)
-  Rear garden walls with steps
-  1800mm high timber fence
-  1800mm high brick wall
-  1800mm high brick wall & fence
-  900mm high metal railings
-  600mm high timber knee rail
-  Public Right of Way (KIR/8/40)
-  Block paving (All other roads and hard surfaces in tarmac with concrete edges)
-  Air Source Heat Pump (ASHP)
-  1.83 x 0.83m (x1.04m high) Lockable timber shed with cycling anchorage point (Plots with garages don't require cycle storage)
-  External wall mounted Electric Vehicle charging point (shown red)
7.2kW, Single-phase, un-lithered Universal Type 2, wall mounted charger
-  Free standing Electric Vehicle (EV) charging point (shown blue)
7.2kW, Single-phase, un-lithered Universal Type 2, floor mounted charger
-  1.8m high lockable timber gate.
(0.8m opening for M4(1) 0.65m with 0.3m nib to the leading edge for M4(2))
-  Affordable Unit
-  Paths and patios - precast concrete paving slabs (natural grey)
-  Bin storage area - on precast concrete paving slabs (natural grey)
-  Refuse collection points (RCP) to private drives
-  Trees and hedges
-  M4(2) House types
-  Front Door
-  Garage Door
-  Patio Door
-  Utility Door
-  Window

B	SS moved 0.5m. Ret walls reinstated (12-40)	OS	07.01.26
A	Orchard, path & landscape shown indicatively	OS	04.11.25
	Sub station moved. Ret walls omitted (12-40)		
Rev	Description	Drawn	Date
edwardarchitects			
025: Marshalls Mill, Marshall Street, Leeds, LS11 8YJ 0113 819 8061 100: 320 City Road, Angel, London, EC1Y 2NE edwardarchitects.co.uk			
Gleeson Cockley Hill Lane, Kirkheaton			
Planning		S2	
Proposed Site Layout		OS	
RM Application Site (2021/61/91507/W)		CR	
1187 - EA - A - C101 - B		14.07.25	1:500 (A0)



Application boundary
subject to Approval
Ref: 2021/61/91507/W

Boundary Treatments & Materials Key

- Facing Stone - Forticrete Pitched Face Buff Walling
- Roof Tiles - Sandtoft Calderdale Dark Grey Tiles
- Retaining walls (details to be confirmed by Engineer)
- Rear garden walls with steps
- 1800mm high timber fence
- 1800mm high brick wall
- 1800mm high brick wall & fence
- 900mm high metal railings
- 600mm high timber knee rail
- Public Right of Way (KIR/8/40)
- Block paving (All other roads and hard surfaces in tarmac with concrete edges)
- Air Source Heat Pump (ASHP)
- 1.83 x 0.83m (x1.64m high) Lockable timber shed with cycling anchorage point (Plots with garages don't require cycle storage)
- External wall mounted Electric Vehicle charging point (shown red) 7.2kW, Single-phase, un-lithered Universal Type 2, wall mounted charger
- Free standing Electric Vehicle (EV) charging point (shown blue) 7.2kW, Single-phase, un-lithered Universal Type 2, floor mounted charger
- 1.8m high lockable timber gate, (0.8m opening for M4(1) 0.65m with 0.3m nib to the leading edge for M4(2))
- Affordable Unit
- Paths and patios - precast concrete paving slabs (natural grey)
- Bin storage area - on precast concrete paving slabs (natural grey)
- Refuse collection points (RCP) to private drives
- Trees and hedges
- M4(2) House types
- Front Door
- Garage Door
- Patio Door
- Utility Door
- Window

B	SS moved 0.5m. Ret walls reinstated (12-40)	OS	07.01.20
A	Path to basin, Benches, bins, Ret wall (12-40)	OS	04.11.20
Rev	Description	Drawn	Date
edwardarchitects			
105, Marshalls Mill, Marshall Street, Leeds, LS11 9YJ 0113 819 8061 105, 105 City Road, Angel, London, EC1Y 2NE edwardarchitects.co.uk			
Gleeson Cockley Hill Lane, Kirkheaton			
Planning		S2	
Proposed Site Layout		OS	
Application Site (2021/62/92527/W)		CR	
1187 - EA - A - C201 - B		14.07.25 1:500 (A0)	

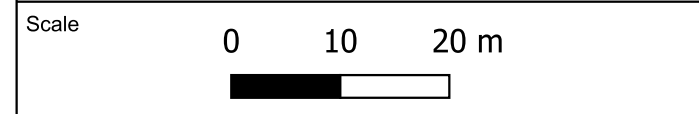
Appendix 2: Faunal Boxes and Wildlife Features Plan





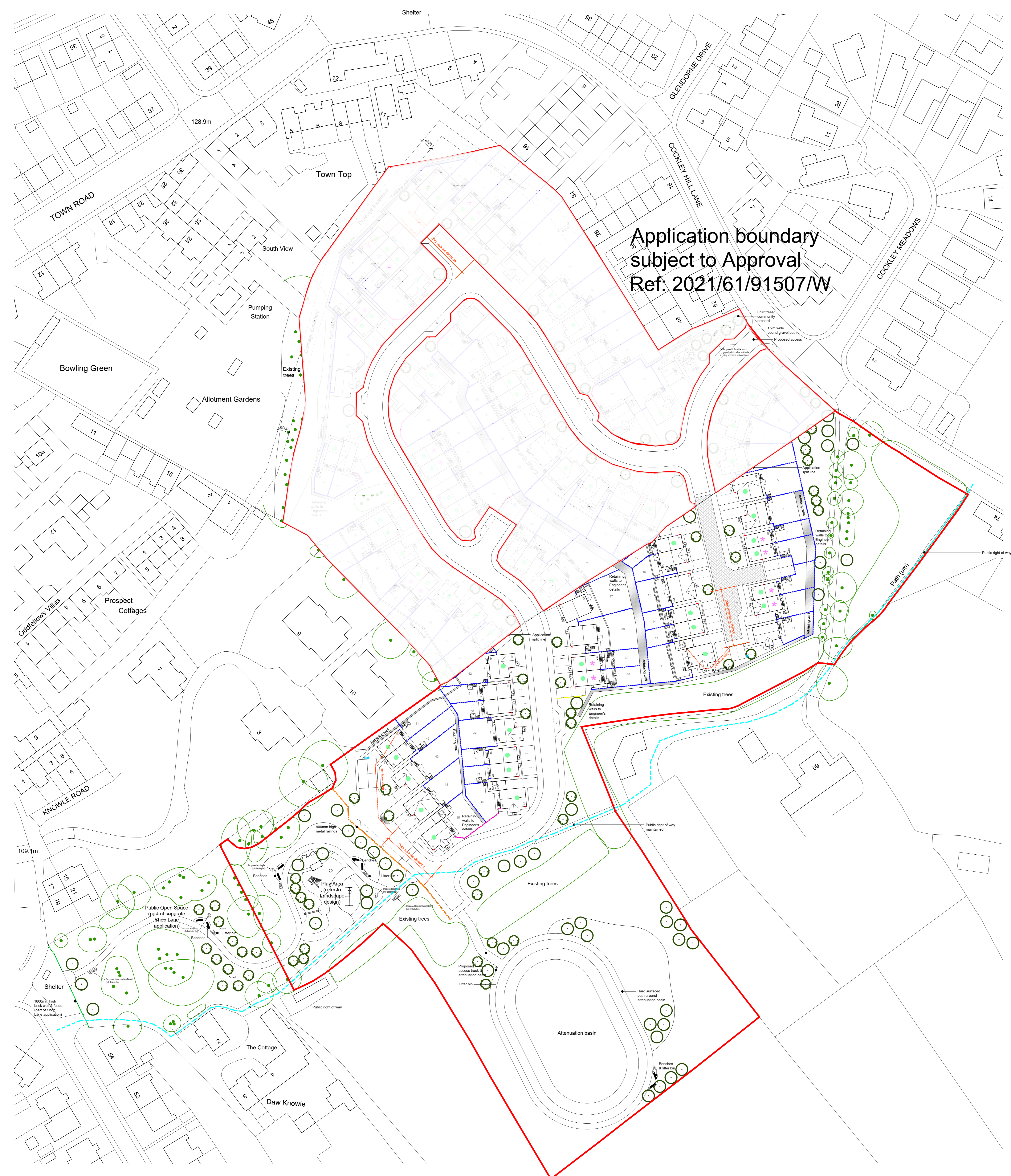
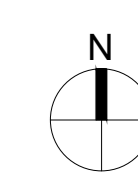
Site name & address
**Land off Cockley Hill Lane,
 Huddersfield, West Yorkshire
 HD5 0HH.**

- Key**
- Red Line Boundary
 - Wildlife Features**
 - ◆ Bat Box
 - Bird Box
 - Insect Shelter
 - ▲ Hedgehog Shelter
 - Hedgehog Hole






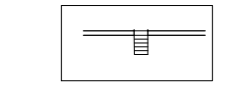



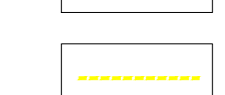
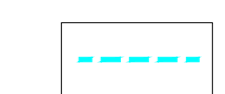
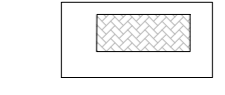
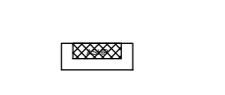
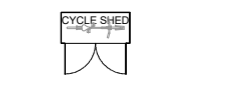




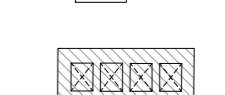


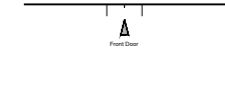

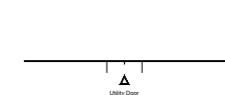





Site Land off Cockley Hill Lane	Client Gleeson
Project Biodiversity Enhancement Plan	Author JF
Plan ref 23469a/JF	Revision 0

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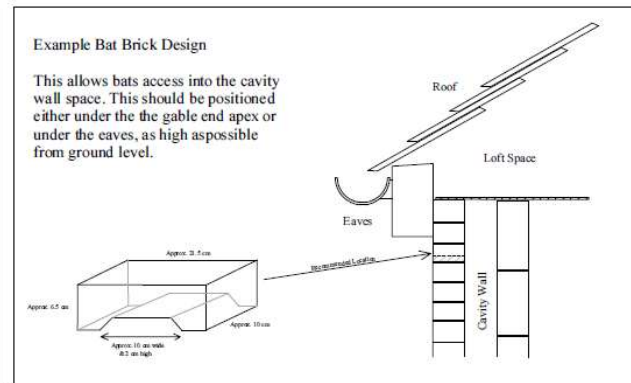
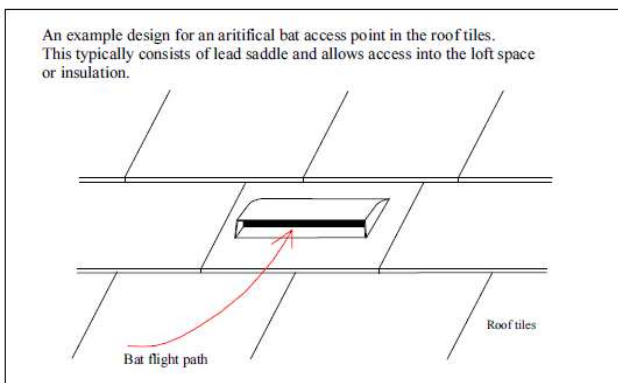
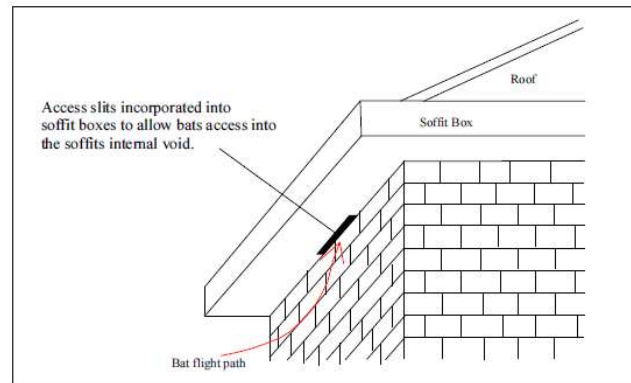
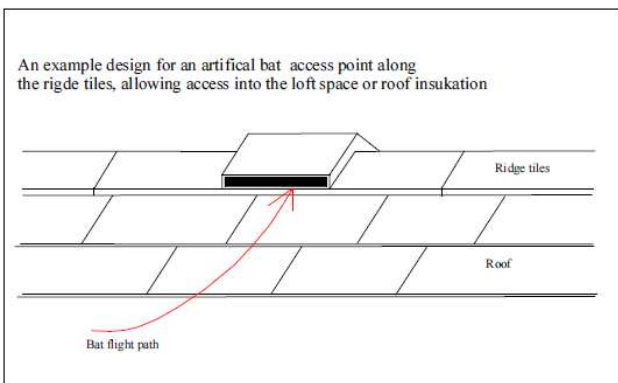
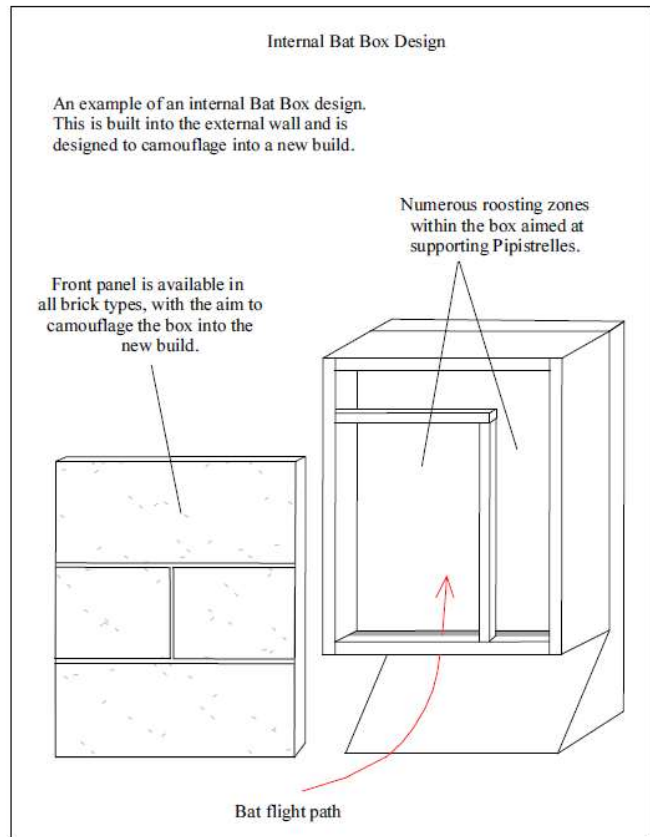
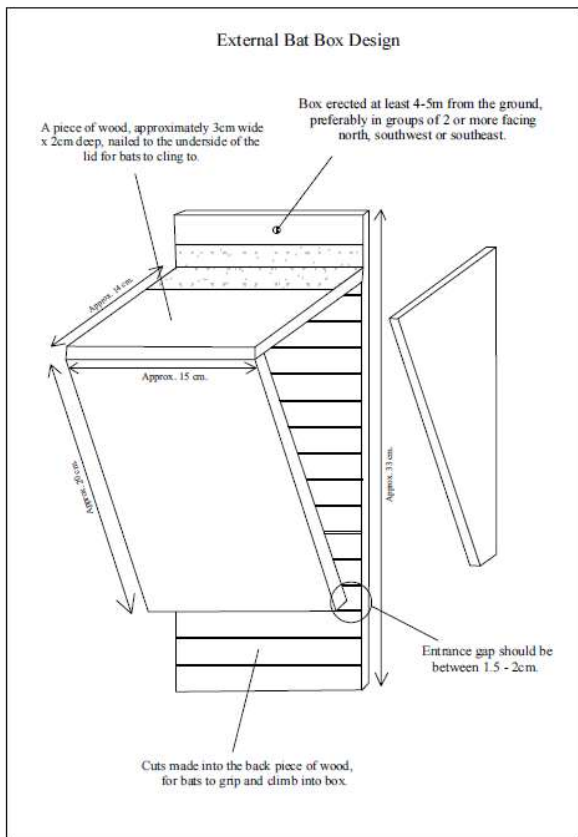
Application boundary
subject to Approval
Ref: 2021/61/91507/W

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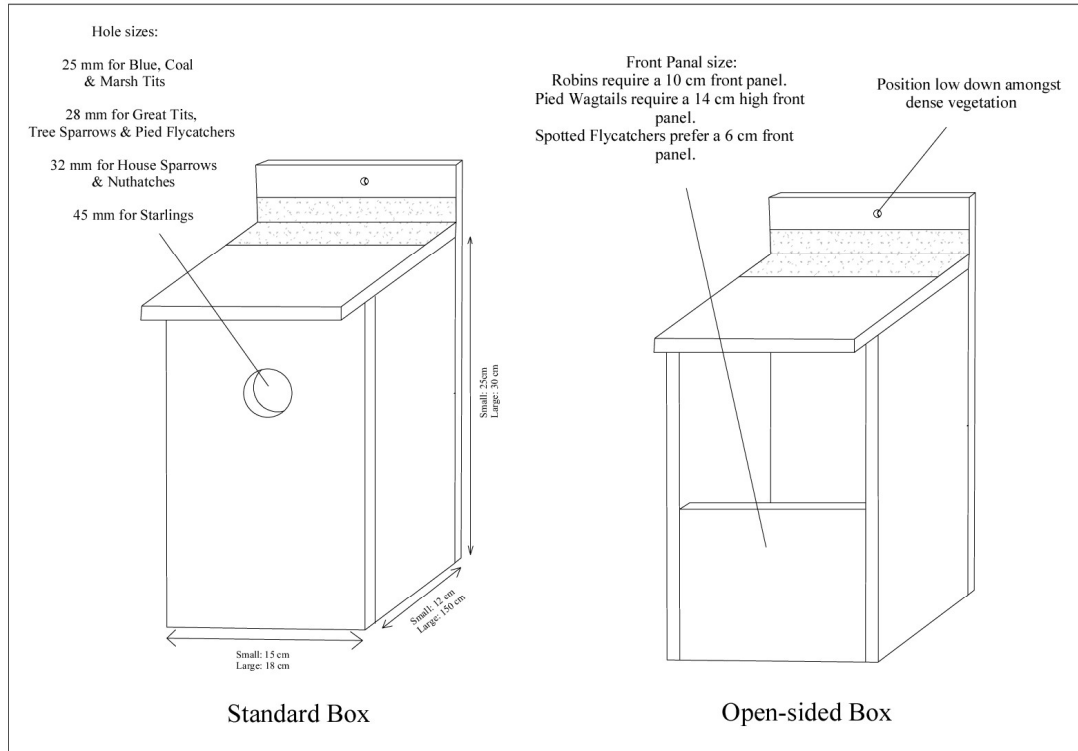
B	SS moved 0.5m. Ret walls reinstated (12-40)	OS	07.01.20
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Rev	Description	Drawn	Date
edwardarchitects			
<small>105, Marshalls Mill, Marshall Street, Leeds, LS11 9YJ 0113 819 8061 105, City Road, Angel, London, EC1Y 2NE edwardarchitects.co.uk</small>			
Gleeson Cockley Hill Lane, Kirkheaton			
Planning Proposed Site Layout Application Site (2021/62/92527/W)		S2 OS CR	
1187 - EA - A - C201 - B		14.07.25 1:500 (A0)	

Appendix 3: Examples Artificial Bat Box Designs

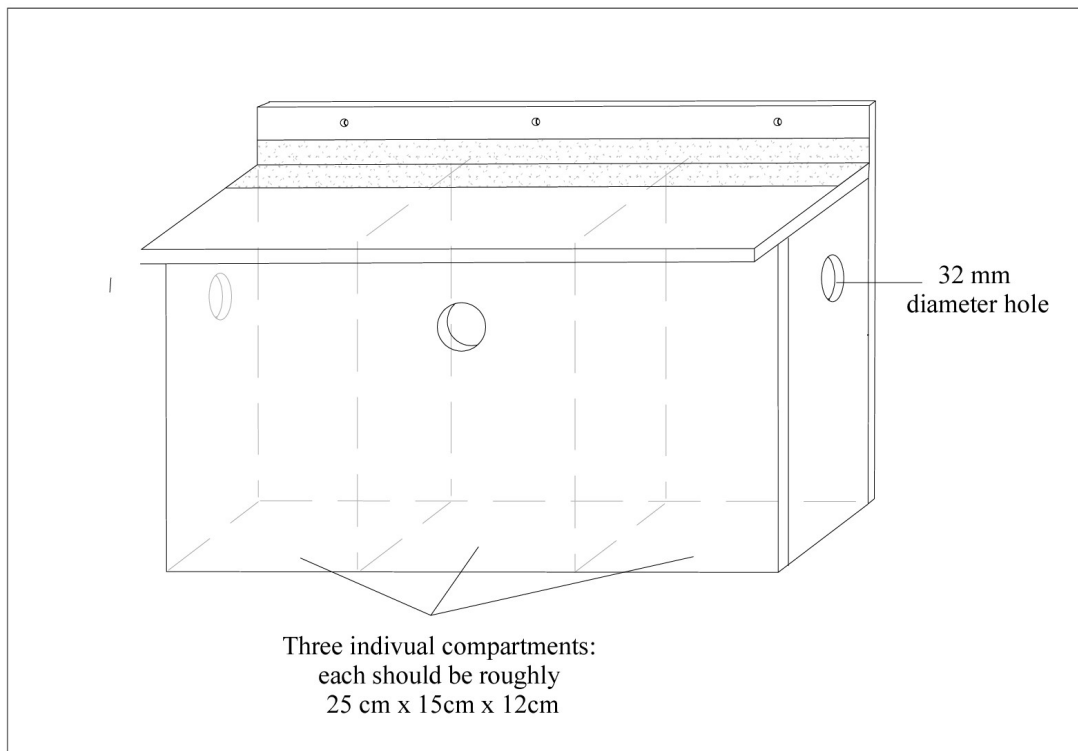


Appendix 4: Examples Artificial Bird Box Designs

An example of two different bird box designs

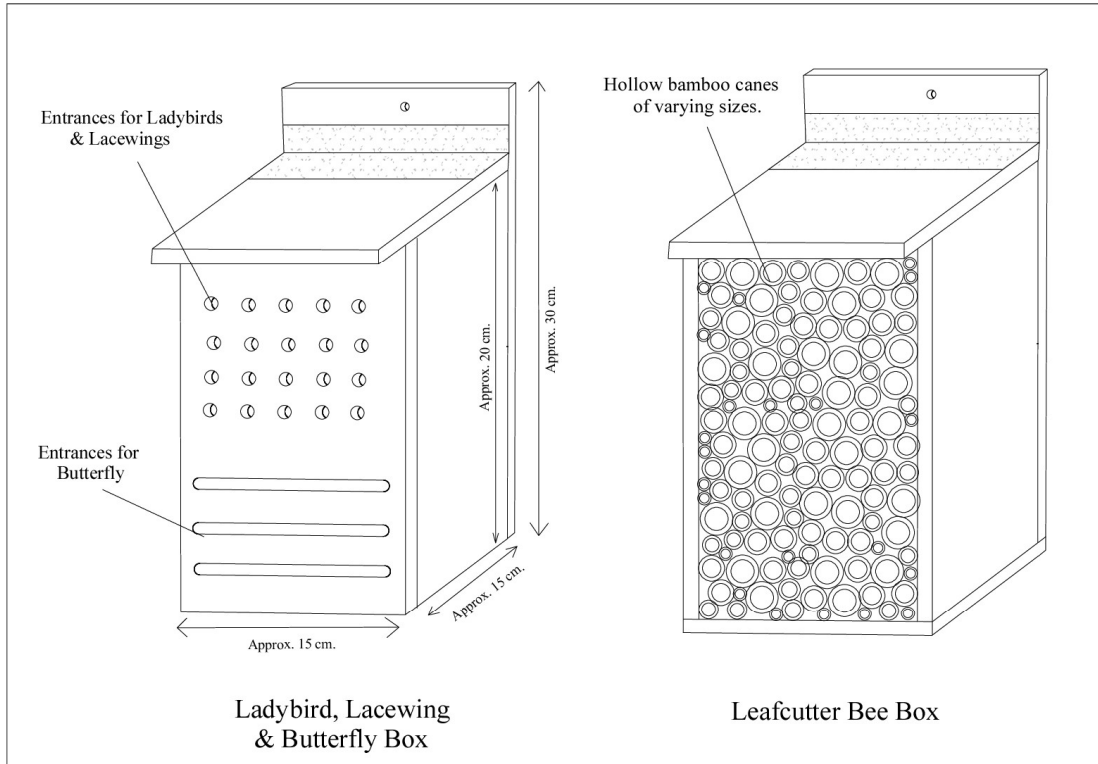


An example of a House sparrow box design

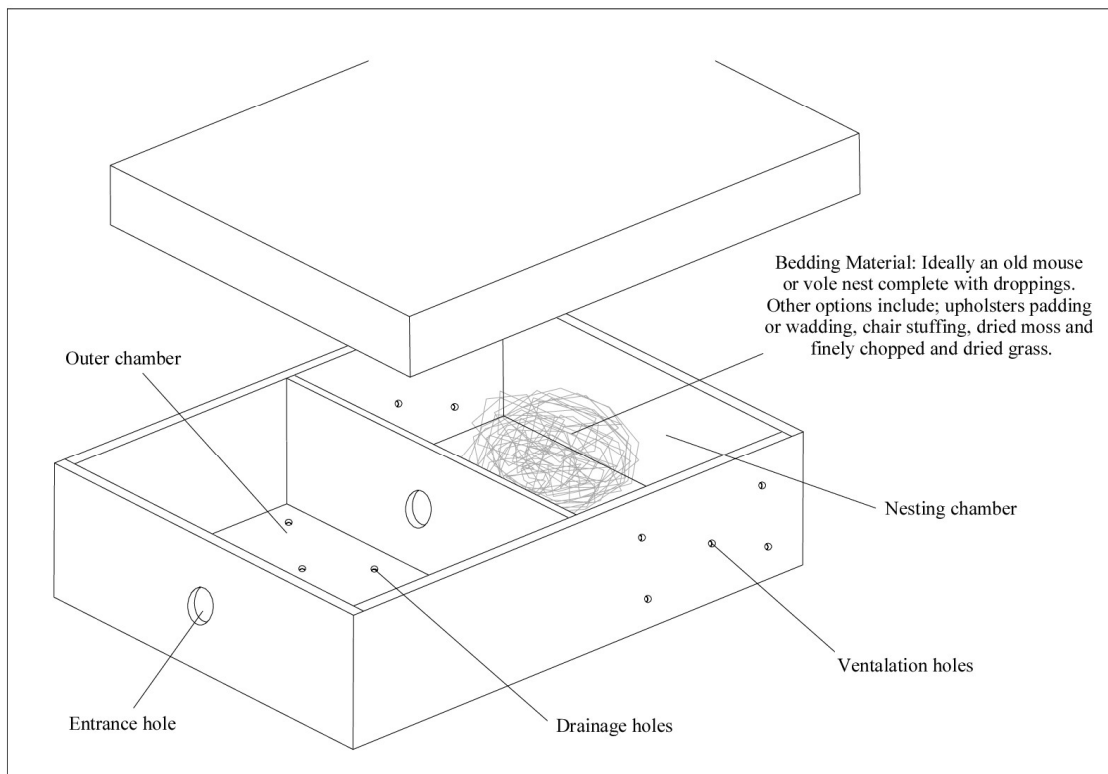


Appendix 5: Examples of Insect Shelter Designs

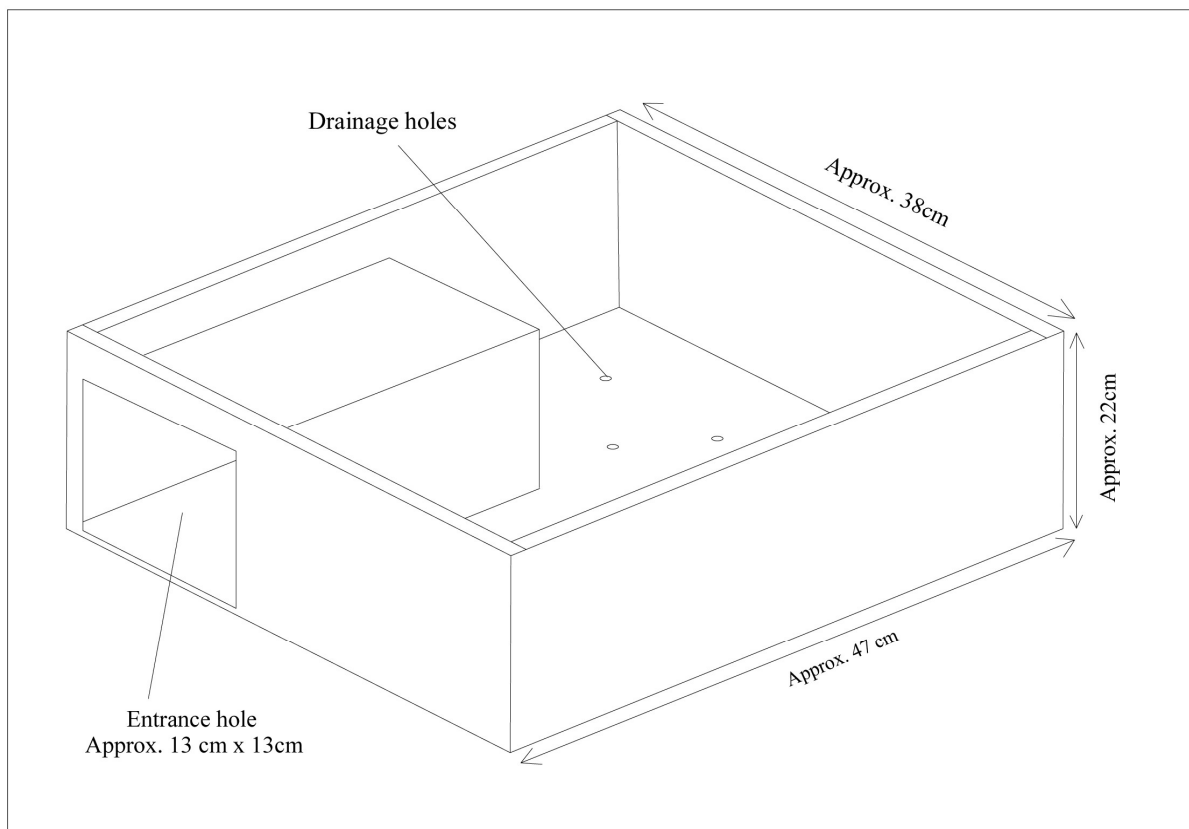
An example of two different insect box designs



An example of a Bumblebee box design

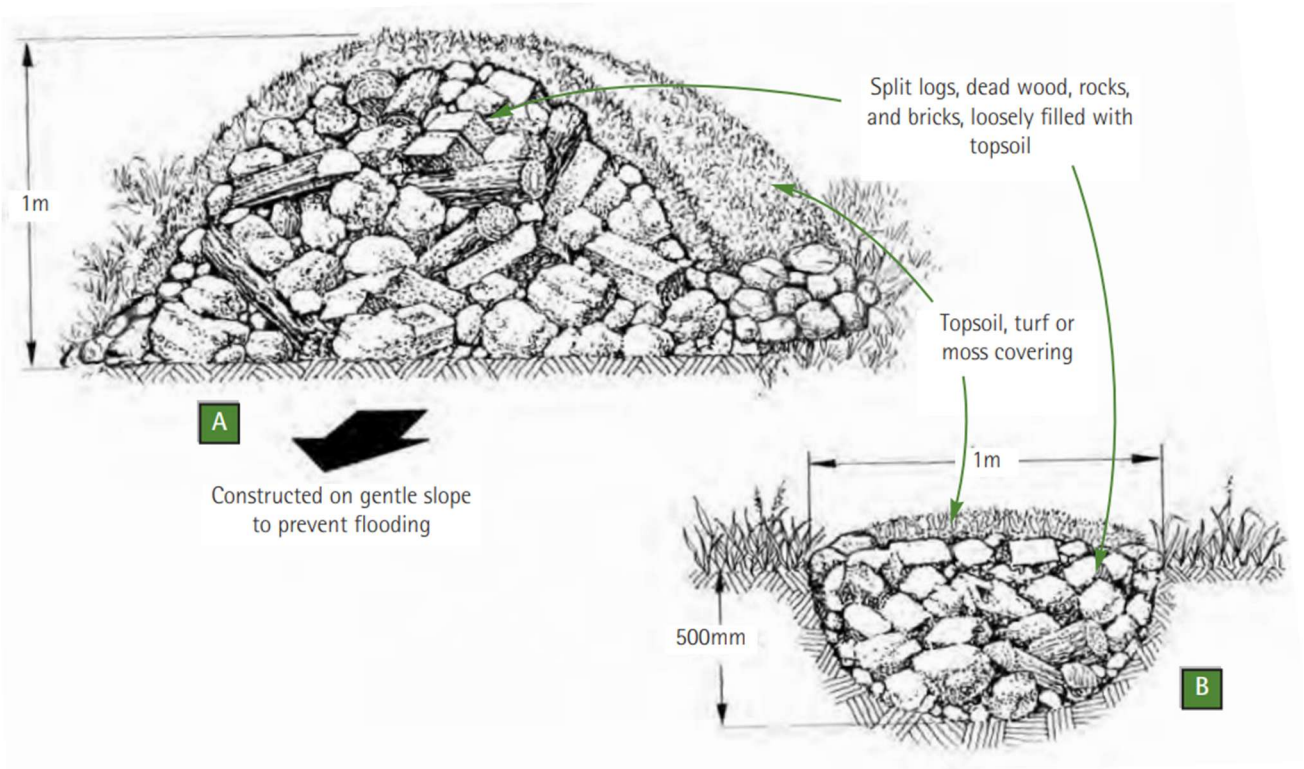


Appendix 6: Example of Hedgehog Shelter Design



Appendix 7: Examples of Amphibian Hibernacula

- A) On impermeable ground
- B) On free-draining soil



Appendix 8: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management, ACIEEM.

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 Bachelor's degree in Animal and Wildlife Management, 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 and a Natural England Level 2 bat survey class licence.

James Foster, Assistant Ecologist

BSc (Hons) Biology.

James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has 11 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

Alex Donovan, Assistant Ecologist

MBiol BSc (Hons) Biology (Industrial), MRSB.

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology, including an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust. Alex is a Qualifying Member of CIEEM, a Member of the Royal Society of Biology, and a member of the BTO's Bird Ringing Scheme and Nest Record Scheme. Alex holds Natural England licences for barn owls (CL29) and great crested newts (level 1, CL08) and is working towards additional survey licences for bats and white-clawed crayfish.



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

James Foster *BSc (Hons)*

13/01/2026

Reviewed by

Alex Donovan *MBIOL BSc (Hons), MRSB*

14/01/2026

For and on behalf of **JCA Ltd**

Registered Office:

Unit 80

Bowers Mill

Branch Road

Barkisland

Halifax

HX4 0AD

Tel. 01422 376335

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



HEAD QUARTERS

Unit 80 Bowers Mill,
Branch Road,
Barkisland
Halifax, HX4 0AD

Company Reg No: 05005041
VAT No: 686 4674 78

