

**PRELIMINARY ECOLOGICAL
APPRAISAL**

at

**Colne Vale Business Park
Huddersfield
West Yorkshire
HD3 4NY**

Client:

Colne Valley Contractors Ltd

Client Address:

**The Yard
Colne Vale Business Park
Colne Vale Road, Milnsbridge
Huddersfield
HD3 4NY**

Client Contact:

07778993305 (Tel)

JCA Ref:

21850/EIC

Date of Report:


22/03/2024



Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Reviewed:	
	Date	Name	Date	Name	Date	Name	Date	Name
001	11/03/24	Eleanor Clark	11/03/24	Eleanor Clark	19/03/24	Eleanor Clark	19/03/24	Rick Westwood
				Rick Westwood			22/03/24	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM’s Code of Professional Conduct*.

Risk Assessment Completed	
Bio-security Procedure Completed	
Lone Worker Procedure Completed	



Summary

JCA Limited has been commissioned by **Colne Valley Contractors Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Colne Vale Business Park**. The site is located at Ordnance Survey (OS) National Grid Reference SE 11163 15812 with nearby postcode HD3 4NY.

A desk study and field survey were undertaken to assess the potential of the site to support protected habitats and species and species of conservation concern. Recommendations for further survey, avoidance, mitigation, and enhancement – where appropriate - have been made and are summarised in Table 1 on the following page and are detailed in full in Chapter 6 of this report.



Table 1: Summary of ecological receptors at the site and recommended mitigation.

Receptor	Potential Risk to Project if No Action Taken	Cause of Impact Description of Effect	Further Survey Required	Mitigation Required
Designated sites				
Statutorily protected	None	N/A	N/A	N/A
Non-statutorily protected	Moderate	Pollution during the construction phase of the development will adversely impact the Huddersfield Narrow Canal LWS	None	A Landscape and Environment Management Plan (LEMP) is recommended relating to the Huddersfield Narrow Canal LWS
S41 habitat	None	N/A	N/A	N/A
Other habitats	Moderate	Pollution during the construction phase of the development will adversely impact the Huddersfield Narrow Canal and the River Colne		A LEMP is recommended relating to the River Colne and Huddersfield Narrow Canal
Protected species				
Flora (WCA Sch 8, CHSR Sch 5)	None	N/A	N/A	N/A
Invertebrates	None	N/A	N/A	N/A
White-clawed crayfish	None	N/A	N/A	N/A
Fish	Moderate	Pollution during the construction phase of the development will adversely impact the Huddersfield Narrow Canal and the River Colne	None	A LEMP is recommended relating to the River Colne and Huddersfield Narrow Canal
Reptiles	None	N/A	N/A	N/A
Birds	None	N/A	N/A	N/A
Bats	Low	Disturbance of commuting and foraging bats during	None	It is recommended that no night working take place



		the construction phase of the development		and no additional lighting be used at the site to avoid disturbance to commuting bats. If it is necessary to install additional lighting on site, guidance from the the Bat Conservation Trust and Institute of Lighting Professionals (2023)
Badgers	Moderate	Animals becoming entrapped in excavations during the construction phase of the development	None	Excavations to be covered at night or a means of escape provided
Otters	Moderate	Pollution during the construction phase of the development will adversely impact the Huddersfield Narrow Canal and the River Colne	None	A LEMP is recommended relating to the River Colne and Huddersfield Narrow Canal
Water voles	Moderate	Pollution during the construction phase of the development will adversely impact the Huddersfield Narrow Canal and the River Colne	None	A LEMP is recommended relating to the River Colne and Huddersfield Narrow Canal
Beaver	None	N/A	N/A	N/A
Other Species e.g. S41 species	Moderate	Prevention of the free movement of hedgehogs	None	The boundary treatments must contain at ground level to contain holes at ground level to allow hedgehogs to pass through the Site
Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959)				
Invasive species	None	N/A	N/A	N/A



Key: S41 habitat/species – habitats and species listed as priority for conservation importance under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.

WCA Sch – Wildlife and Countryside Act 1981 (as amended) Schedule

CHSR – Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019



Contents

1. Introduction	8
1.1 Background	8
1.2 Scheme Description and Location	8
1.3 Aims and Objectives	8
2. Methodology	10
2.1 Desktop Study	10
2.2 Field Survey	10
2.3 Survey Constraints	11
3. Desk Study Results	13
3.1 Statutory Designated Sites	13
3.2 Non-statutory Designated Sites	13
3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory	13
3.4 Protected and Notable Species	13
4. Field Survey Results	18
4.1 Habitats	18
4.2 Protected and Notable Species	18
5. Assessment	21
5.1 Designated Sites	21
5.2 Habitats	21
5.3 Protected and Notable Species	21
6.1 Habitats	24
6.2 Protected and Notable Species	24
Appendix 1: UKHab Habitat Map	30
Appendix 2: Proposed Development Plan	32
Appendix 3: Photographic Evidence	34
Appendix 4: Glossary	35
Appendix 5: Protected Species Information	37
Appendix 6: Survey Calendar	39
Appendix 7: Author Qualifications	40



1. Introduction

1.1 Background

1.1.1 In March 2024, JCA Limited was instructed by **Colne Valley Contractors Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Colne Vale Business Park**, hereafter referred to as 'the Site'. The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed works, hereafter referred to as 'the scheme', have the potential to adversely affect any protected or notable habitats or species.

1.2 Scheme Description and Location

1.2.1 The site is located at Ordnance Survey (OS) National Grid Reference SE 11163 15812, with nearby postcode HD3 4NY. The site is bordered to the north by the River Colne and the south by Huddersfield Narrow Canal. Industrial buildings lie west and east of the Site.

1.2.2 The scheme is the construction of three industrial units.

1.3 Aims and Objectives

1.3.1 The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed development activities have the potential to adversely affect any protected or notable habitats or species. The following tasks have been undertaken:

- Desktop study – a review of environmental records for the surrounding area to obtain existing information on statutory and non-statutory designated sites of nature conservation interest, and the presence of protected and notable habitats and species within the site and its environs.
- Field surveys – an Extended Phase 1 Habitat survey involving a site visit to record habitat types and dominant vegetation, including any invasive species. During this survey evidence of protected or notable fauna and habitats or habitat capable of supporting protected or notable fauna was recorded.
- Ecological report – an assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation, and enhancement where



appropriate. Locations of any features constituting ecological constraints or of other ecological interest and vegetation recorded on and around the development are included in an accompanying UK Hab Habitat Map (**Appendix 1**). This report and the maps are supported by photographs (**Appendix 3**) and information regarding current legislation (**Appendix 5**).



2. Methodology

2.1 Desktop Study

2.1.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites and European Protected Species (EPS) licensing applications within a 2km radius of the site. In addition, international sites designated for bats within 30km of the site were searched for. The baseline conditions are based on a review of existing available information including:

- MAGIC (Multi-Agency Geographical Information for the Countryside) website (to identify statutory designated sites and EPS licences).
- Ordnance Survey mapping (to identify potentially notable habitats including ponds).
- Aerial photography (to identify potentially notable habitats).
- Data search for records of protected/notable species on and within 2km of the site within the last ten years (exempting bat roosts, of which all records are included) obtained from West Yorkshire Ecology Service (WYES), the local environmental records centre for Huddersfield, along with information for non-statutory wildlife sites.

2.1.2 The records were checked against species listed as priority species under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and the Kirklees Biodiversity Action Plan to assess national and regional habitat and species status.

2.2 Field Survey

2.2.1 A UK Hab survey of the site was conducted on 11/03/2024. All areas of the site were investigated and areas around the site where access permitted.

2.2.2 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Vegetation and Habitat Survey (The UK Habitat Classification, Habitat Definitions Version 2.01, UKHab, 2023). Dominant and abundant plant species were recorded for each habitat present.



2.2.3 The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Wildlife & Countryside Act (WCA) 1981 (as amended), including those given a higher level of legal protection under the NERC Act 2006 and Countryside & Rights of Way (CRoW) Act 2000, and those listed on the LBAP. The following species were considered:

- Invertebrates (including white-clawed crayfish *Austropotamobius pallipes*).
- Reptile habitat within the site.
- Nesting and foraging habitat for birds within the site.
- Bat roost potential and foraging habitat within the site.
- Otters *Lutra lutra* and suitable habitat within 30m of the site, where accessible.
- Water vole *Arvicola amphibius* habitat within 20m of the site, where accessible.
- Eurasian beaver *Castor fiber* habitat within 30m of the site, where accessible.
- Other notable species.
- Invasive species.

2.3 Survey Constraints

2.3.1 To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, the survey undertaken focused on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2018), especially those given protection under UK wildlife legislation.



- 2.3.2 The optimum time of year for completing the survey is between April and September, as many plant species have a seasonal expression in spring and summer only. The survey was undertaken on 11/03/2024.
- 2.3.3 The weather on the days leading up to the surveys was 6°C with heavy rain. During the survey the weather was 6°C, overcast with light rain. The heavy rain leading up to the survey had the potential to obscure any field signs of protected species which may have been present.
- 2.3.4 The details of this report will remain valid for a period of 18 months. If works have not commenced within this period or land use on site changes, it is recommended that a new review of the ecological conditions is undertaken.



3. Desk Study Results

3.1 Statutory Designated Sites

3.1.1 The MAGIC website revealed no internationally designated sites within 2km of the site. The closest internationally designated site is the South Pennine Moors Special Area of Conservation (SAC) and the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) located approximately 6.8km west of the Site.

3.1.2 The MAGIC website revealed one nationally designated site within 2km of the site. Gledholt Woods Local Nature Reserve (LNR) is located approximately 1.83km northeast of the Site. The LNR includes areas of meadow and woodland, some of which being ancient woodland. The Site is located within a SSSI Impact Risk Zone.

3.2 Non-statutory Designated Sites

3.2.1 Records received from WYES revealed four non-statutory designated sites within 2km of the site, detailed in **Table 2** below.

Table 2: Non-statutory designated sites within 2km of the site, returned from WYES.

Site Name	Distance (m) from Site	Reasons for Designation
Huddersfield Narrow Canal LWS	0.03km south	Open standing water and its value for the appreciation of nature
John Wellfield Quarries LGS	1.78km south	Historical associations, education value and aesthetic characteristics
Gledholt Woods LWS	1.83km northeast	Local Nature Reserve (LNR)
Low Westwood Pond LWS	1.87km southwest	Species rich standing water
Key: LWS – Local Wildlife Site LGS – Local Geological Site		

3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory

3.3.1 The MAGIC website revealed no priority habitats on-Site, however deciduous woodland is located on the northeast boundary of the Site.

3.4 Protected and Notable Species



3.4.1 European Protected Species (EPS) Licence Applications

The MAGIC website revealed three EPS licence application within 2km of the site;

- A licence granted on 18/09/2009 and ending on 17/09/2011 to allow for the destruction of a resting place used by common pipistrelle bats. Licence reference: EPSM2009-1162.
- A licence granted on 08/04/2014 and ending on 30/09/2015 to allow for the damage and destruction of a resting place used by common pipistrelle bats. Licence reference: 2014-1010-EPS-MIT.
- A licence granted on 02/01/2013 and ending on 01/12/2014 to allow for the damage and destruction of a resting place used by common pipistrelle bats. Licence reference: EPSM2012-5292.

3.4.2 Records of Protected and Notable Species

3.4.3 Flora

One record of bluebell *Hyacinthoides non-scripta*, a Schedule 8 (WCA, 1981) and Kirklees BAP species, was received from WYES. The record is from 2022, located approximately 1573m west of the Site.

3.4.4 Invertebrates (including white-clawed crayfish)

One record of white ermine moth *Spilosoma lubricipeda*, a NERC S41 and WYBAP species, was received from WYES. The record is from 2016, located approximately 1498m southwest of the Site.

3.4.5 Fish

Records of brown trout *Salmo trutta*, a NERC S41, WYBAP and Kirklees BAP species, and Grayling, a species listed under Schedule 4 of the Conservation of Habitats and Species Regulations 2017, were received from WYES. The closest and most recent record for both species is from 2015, located approximately 856m east of the Site.

3.4.6 Amphibians

One record of common frog *Rana temporaria*, a WYBAP species, was received from WYES. The record is from 2015, located 1610m southwest of the Site.

3.4.7 Reptiles



No records of reptiles were received from WYES.

3.4.8 Birds

The following records were received from WYES.

Table 3: Bird records received from WYES.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
<i>Alcedo atthis</i>	Kingfisher	LBAP	2015	1	1336
<i>Apus apus</i>	Swift	WYBAP	2021	1	1232
<i>Passer domesticus</i>	House sparrow	S41, KBAP, WYBAP	2017	1	635
<i>Passer montanus</i>	Tree sparrow	LBAP	2015	1	930

Key:

S41: Section 41 of the NERC Act 2006

KBAP: Kirklees Biodiversity Action Plan

WYBAP: West Yorkshire Priority Species List

3.4.9 Bats

The following records were received from WYES.

Table 4: Bat records received from WYES.

Scientific Name	Common Name	Designation	Latest Date	Number of records	Distance from Site
<i>Myotis</i>	Unidentified <i>Myotis</i> sp	EPS	2023	1	982
<i>Myotis daubentonii</i>	Daubenton's bat	EPS, KBAP, WYBAP	2019	1	837
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	EPS, KBAP, WYBAP	2023	7	837
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	EPS, S41, KBAP, WYBAP	2021	2	837
<i>Plecotus auritus</i>	Brown long-eared bat	EPS, S41, KBAP, WYBAP	2021	1	1865

Key:

EPS: European Protected Species: Species listed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

S41: Section 41 of the NERC Act 2006

KBAP: Kirklees Biodiversity Action Plan

WYBAP: West Yorkshire Priority Species List



3.4.10 Bat Roosts

The following records were received from WYES.

Table 5: Bat records received from WYES.

Scientific Name	Common Name	Roost type	Date	Distance from Site (m)
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Single adult	2021	1865
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Single adult	2018	1219
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Single adult	2018	1222
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Two adults	2018	1203
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Single adult	2018	1277
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Not recorded	2006	492
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Five adults	2013	1493
<i>Pipistrellus</i>	Pipistrelle bat	Not recorded	2000	1927
<i>Pipistrellus</i>	Pipistrelle bat	No recorded	2006	492
<i>Pipistrellus</i>	Pipistrelle bat	Maternity	2019	1336
<i>Pipistrellus</i>	Pipistrelle bat	45 adults	2004	1457
<i>Plecotus auritus</i>	Brown long-eared bat	Single adult	2021	1865
<i>Plecotus auritus</i>	Brown long-eared bat	Single adult	2022	1865
<i>Vespertilionidae</i>	Unidentified bat	Not recorded	2007	1926
<i>Vespertilionidae</i>	Unidentified bat	Maternity	2002	791
<i>Vespertilionidae</i>	Unidentified bat	Not recorded	1993	1127
<i>Vespertilionidae</i>	Unidentified bat	Possible	2004	1679
<i>Vespertilionidae</i>	Unidentified bat	Not recorded	2004	1456



3.4.12 Otters

No records of otter were received from WYES.

3.4.13 Water Voles

No records of water vole were received from WYES.

3.4.14 Beaver

No records of beaver were received from WYES.

3.4.15 Other Notable Species

One record of hedgehog *Erinaceus europaeus* was received from WYES. The record is from 2021, located approximately 1561m northwest of the Site.

3.4.16 Invasive Species

The following records of invasive non-native species were received from WYES.

Table 6: Invasive non-native species records received from WYES.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
<i>Fallopia japonica</i>	Japanese Knotweed	WCA9	2022	20	166
<i>Impatiens glandulifera</i>	Himalayan Balsam	WCA9	2022	6	1134
<i>Rhododendron ponticum</i>	Rhododendron ponticum	WCA9	2018	1	1387

Key:

WCA9: Schedule 9 of the Wildlife and Countryside Act 1961 (as amended)



4. Field Survey Results

4.1 Habitats

4.1.1 u1b – Developed land; sealed surface 81 ruderal or ephemeral, 202 young trees – self-set

Hardstanding used for storage is located in the northeastern section of the Site. Ruderal vegetation and young self-set trees are growing on the peripheries in the northeastern section of the Site. Species include sycamore *Acer pseudoplatanus*, willow species *Salix* sp., elm *Ulmus* sp., silver birch *Betula pendula*, buddleja *Buddleja* sp., bramble *Rubus fruticosus*, willowherb *Epilobium* sp., moss, coltsfoot *Tussilago farfara*, dandelion *Taraxacum officinale*, common sow-thistle *Sonchus oleraceus*, and herb-Robert *Geranium robertianum*.

4.1.2 u1b – Developed land; sealed surface

A strip of hardstanding, providing vehicular access to the Site is located along the western boundary.

4.1.3 u1b5 – Other developed land, 32 scattered trees, 81 ruderal or ephemeral

Two islands with scattered trees and ruderal vegetation are located on the eastern boundary of the Site. Species include rowan *Sorbus aucuparia*, dandelion, ribwort plantain *Plantago lanceolata*, common mouse-ear *Cerastium fontanum*.

4.2 Protected and Notable Species

4.2.1 Flora

Records of bluebell were received from WYES. No evidence of protected and notable species, including bluebell, was identified on-Site. The habitat present on Site are not suitable for supporting bluebell. As such, flora will not be mentioned further in this report.

4.2.2 Invertebrates (including white-clawed crayfish)

One protected and notable species of invertebrate was received from WYES. The habitats on Site do not provide the mosaic of habitats needed to support important assemblages of invertebrates. Therefore, invertebrates will not be mentioned further in this report.



4.2.3 Fish

Records of brown trout and grayling were received from WYES. There are no habitats on Site suitable for supporting fish, however, the Site is bordered to the South by the Huddersfield Narrow Canal and to the north by the River Colne.

4.2.4 Amphibians

One record of common frog was received from WYES. One pond is within 500m of the Site, located approximately 300m northeast. The River Colne lies between the Site and the pond, acting as a significant barrier for dispersal. Additionally, the habitats on site are limited and so not provide suitable terrestrial habitat for amphibians. As such, amphibians will not be mentioned further in this report.

4.2.5 Reptiles

No records of reptiles were received from WYES. The habitats on Site are limited and do not provide the mosaic of habitats needed to support reptiles. Therefore, reptiles will not be mentioned further in this report.

4.2.6 Birds

Four species of protected and notable bird species were received from WYES, including Kingfisher. The habitats on site are not suitable for support bird species due to all trees on Site being young. However, the Site is bordered by the River Colne and woodland which has the potential to support nesting birds.

4.2.7 Bats

There are no building on Site and the trees present do not provide roosting opportunities for bats. There is no suitable foraging and commuting habitat for bats within the red line boundary. However, the Site is bordered by the River Colne, Huddersfield Narrow Canal, and woodland which does provide suitable foraging and roosting habitat and potential roosting opportunities for bats.

4.2.9 Otters



No records of otter were received from WYES. There are no habitats on Site suitable for supporting otter, however the Site is bordered to the South by the Huddersfield Narrow Canal and to the north by the River Colne.

4.2.10 Water Voles

No records of water vole were received from WYES. There are no habitats on Site suitable for supporting water voles, however, the Site is bordered to the South by the Huddersfield Narrow Canal and to the north by the River Colne.

4.2.11 Beaver

No records of beaver were received from WYES. There are no habitats on Site suitable for supporting beaver and the Site is not located within an area where beaver reintroduction has taken place.

4.2.12 Other Notable Species

Records of hedgehog were received from WYES. The habitats on site do not provide suitable sheltering and foraging habitat for hedgehog. However, the woodland adjacent to the site provide suitable habitat. Hedgehogs can travel several kilometres in a night, therefore, the Site may be used by commuting hedgehogs.

4.2.13 Invasive Species

Records of three invasive non-native species (INNS) listed under Schedule 9 of the Wildlife and Countryside Act 1981 were received from WYES. There was no evidence of INNS found on Site during the survey, however the survey was undertaken outside of the primary growing season for INNS.



5. Assessment

5.1 Designated Sites

5.1.1 Statutory designated sites

There are no internationally designated sites within 2km of the site, with the closest being over 6km to the west. Due to the distance of these designated sites from the site itself, sites under these designations are not considered vulnerable to adverse impacts from the proposed scheme.

There is one nationally designated site within 2km of the Site and it is located within a SSSI Impact risk Zone. The proposed development does not fall under the criteria listed as likely impacts to sites under this level of designation. As such, sites under these designations are not considered vulnerable and will not be mentioned further in this report.

5.1.2 Non-statutory designated sites

There are four non-statutory designated sites within 2km of the Site with the closest being Huddersfield Narrow Canal LWS located approximately 0.03km south of the Site. Due to the proximity of the Site to Huddersfield Narrow Canal, the LWS is considered vulnerable to the development.

5.2 Habitats

5.2.1 The most valuable habitats for biodiversity within the development site boundary are scattered trees. The proposed works will be removed to facilitate the development.

5.2.2 The other habitats described in Chapter 4, Section 4.1 have lower biodiversity and provide less opportunity to support protected or notable species. The flora recorded in these habitats is locally common and widespread and they do not fall into any of the NERC S41 or Local BAP Priority Habitat descriptions.

5.3 Protected and Notable Species

5.3.1 Fish

The River Colne and Huddersfield Narrow Canal border the Site to the north and south, respectively. Pollution as a result of the proposed development could



impact the river and therefore brown trout may be impacted. Recommendations regarding fish have been made in paragraph 6.2.1.

5.3.2 Bats

The proposed developed could lead to the disturbance of foraging and commuting bats using the woodland and waterways adjacent to the Site. Recommendations regarding bats have been made in paragraph 6.2.2.

5.3.4 Otters

The river and bordering woodland have the potential to support otters. The storage of machinery on the banks of the river could result in the destruction of the resting place of otters. Pollution as a result of the proposed development could impact the river. This has the potential to adversely impact otters through a reduction in the number of fish present in the watercourse. As such, otters may be impacted by the proposed development. Recommendations regarding otters will be made in paragraph 6.2.4.

5.3.5 Water Voles

The river and bordering woodland have the potential to support water vole. The storage of machinery on the banks of the river could result in the destruction of the resting place of water vole. Pollution as a result of the proposed development could impact the river, which may be used by water vole for foraging and commuting and as a resting place. As such, water vole may be impacted by the proposed development. Recommendations regarding water vole will be made in paragraph 6.2.5.

5.3.6 Other Notable Species

The development is likely to restrict the movement of hedgehogs locally and reduce the amount of available nesting and foraging habitat. As such, recommendations regarding hedgehogs will be made in paragraph 6.2.6.

5.3.7 Invasive Species



No INNS were identified during the survey; however the survey was undertaken outside of the primary growing season for INNS. Therefore, recommendations regarding INNS will be made in paragraph 6.2.7.



6. Recommendations

6.1 Habitats

2.3.1 A Landscape and Environment Management Plan (LEMP) is recommended relating to the River Colne and Huddersfield Narrow Canal LWS. This is to ensure that these habitats are not adversely impacted during the works.

6.1.1 The proposed works provide an opportunity to institute enhancement for biodiversity such as the inclusion of more native plant species. A landscaping plan should be devised which incorporates, as far as practicable, native species with known benefits to wildlife common in the area.

6.2 Protected and Notable Species

6.2.1 Fish

A Landscape and Environment Management Plan (LEMP) is recommended in relation to any fish present in the river on site.

6.2.2 Bats

It is recommended that no night working take place and no additional lighting be used at the site to avoid disturbance to commuting bats. If it is necessary to install additional lighting on site, these should be fitted with hoods, cowls or shields to direct light into the working areas only.

Inappropriate lighting in the vicinity of bat roosts or on commuting and foraging routes can cause disturbance to bat populations and individuals. As such, guidance in line with the information provided by the Bat Conservation Trust and Institute of Lighting Professionals (2023) will aid in planning lighting schemes with the aim of limiting the impact that lighting may have on local bat populations. New lighting schemes should be approved by an appropriately experienced ecologist prior to construction.



such as a plank placed from the bottom of the excavation to the rim at a 45 degree angle, must be provided

6.2.4 Otter

A LEMP is recommended in relation to any otter present in the river on site.

6.2.5 Water vole

A LEMP is recommended in relation to any water vole present in the river on site.

6.2.6 Other notable species

To prevent the free movement of hedgehogs from becoming obstructed, the boundary treatments of the proposed development must contain holes at ground level measuring 13 x 13cm to allow hedgehogs to pass through the site.

6.2.7 Invasive species

No INNS were identified during the survey, however, if species listed under Schedule 9 of the Wildlife and Countryside Act 1981 are identified on Site works must cease immediately and an Invasive Species Method Statement is recommended.



7. References

Guidelines for surveys and report writing:

British Standards Institute (BSI), (2013) *BS 42020:2013, Biodiversity - Code of practice for planning and development*. London.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2015) *Guidelines for Ecological Report Writing*. Winchester.

UKHab Ltd (2023) *UK Habitat Classification Version 2.01* (at <https://www.ukhab.org>).

Websites:

Advice on protected species is consolidated at:

Environmental management: Wildlife and habitat conservation - GOV.UK (2016) *Gov.uk*. Available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

Magic Map Application (2016) *Magic.defra.gov.uk*. Available at: <http://magic.defra.gov.uk/MagicMap.aspx>

The RSPB (2016). Available at: <http://www.rspb.org.uk/>

Surveys and mitigation plans: protected species - Detailed guidance (2015) *Gov.uk*. Available at: <https://www.gov.uk/guidance/surveys-and-mitigation-plans-protected-species>

Within this detailed guidance on surveys and mitigation information is available on the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

Wildlife licences: when you need to apply - Detailed guidance (2014) *Gov.uk*. Available at: <https://www.gov.uk/guidance/wildlife-licences>

Within this detailed guidance on licensing information is available on licences for the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

As well as:

- Non-native Bumblebee species
- Deer
- Freshwater fish
- Invertebrates
- Mink, coypu, muskrat and gr squirrel
- Plants

Species Specific Information:

Badgers:



Natural England, (2007) *Badgers and Development: A Guide to Best Practice and Licensing*.

Competencies for Species Survey: Badger, Chartered Institute of Ecology and Environmental Management CIEEM, 2013

Bats:

Bat Conservation Trust, (2007) *Bats, Development & Planning in England*. London.

Bat Conservation Trust and Institute of Lighting Professionals (2018) *Guidance Note 08/18: Bats and artificial lighting in the UK*. ILP, Rugby

Collins, J. (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th edition. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. (2012) *The Bat Workers' Manual*. Pelagic Publishing, Exeter.

Bats: surveys and mitigation for development projects, <https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects> Accessed 2018-06-21

Dormice:

Bright, P., Morris, P. and Mitchell-Jones, A. (1996) *The dormouse conservation handbook*. Peterborough: English Nature.

Great Crested Newts:

Langton, T., Beckett, C. and Foster, J. (2001) *Great Crested Newt Conservation Handbook*. Halesworth: Froglife. pdf

Advice note 4 (revised) - *Amphibian Disease Precautions, A Guide for UK Fieldworkers, Amphibian and Reptile Conservation trust*, 2017. Accessed 2018-06-21

Otters:

Natural England, (2007) *Species Information Note SIN006, Otter: European protected species*.

Reptiles and Amphibians:

Baker, J., Beebee, T., Buckley, J., Gent, T. and Orchard, D. (2011) *Amphibian Habitat Management Handbook*. 1st ed. Bournemouth: Amphibian and Reptile Conservation.

Edgar, P., Foster, J. and Baker, J. (2010) *Reptile Habitat Management Handbook*. 1st ed. Bournemouth: Amphibian and Reptile Conservation.

English Nature, (2004). *Reptiles: guidelines for developers*. Peterborough.

Gent, T. and Gibson, S. (ed.) (2003) *Herpetofauna Workers Manual*. Bournemouth: JNCC.

Water Voles:

Natural England, (2008) *Water voles - the law in practice. Guidance for planners and developers*.

Water Vole Conservation and Management: Lessons From Four Case Studies, Jemma Louise Gaskin, 2016

Stoddart, D.M. (1970), *Individual range, dispersal in a population of water voles (Arvicola terrestris (L.))*. *Journal of Animal Ecology* 39, 403-425.

Strachan, R. (2009), *Populations and Persistence – Developing a Strategy for Conserving Water Voles in the UK*, Presentation to Warwickshire Wildlife Trust, 2nd April 2009, Environment Agency, Wales



Strachan, R. and Holmes-Ling, P (2003), *Restoring water voles and other biodiversity to the wider countryside*. Wildlife Conservation Research Unit, Oxford.

Strachan, R., Moorehouse, T. and Gelling, M. (2011), *Water Vole Conservation Handbook*, 3rd Edn, WILDCRU

White-clawed Crayfish:

Peay, S. (2002) *Guidance on Habitat for White-clawed Crayfish and its Restoration*. Kendal: English Nature

Relevant Legislation:

Wildlife and Countryside Act 1981, (c. 69) (as amended). Available at:
<http://www.legislation.gov.uk/ukpga/1981/69>

Countryside and Rights of Way Act 2000 (c.37). Available at:
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at:
<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Conservation of natural habitats and of wild fauna and flora Council Directive (92/43/EEC) (The Habitats Directive) (as amended) Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

Protection of Badgers Act 1992 (c. 51). Available at:
<http://www.legislation.gov.uk/ukpga/1992/51/contents>

The Hedgerow Regulations 1997 (No. 1160). Available at:
<http://www.legislation.gov.uk/uksi/1997/1160/contents/made>



Appendices

Appendix 1: UKHab Habitat Map





Site name & address
Colne Vale Business Park
Huddersfield
West Yorkshire
England
HD3 4NY

Key

□ Site boundary

Primary habitats

▨ u1b - developed land, sealed surface

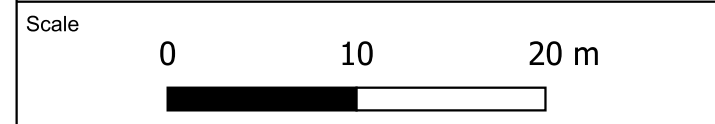
◆ u1b6 - other developed land

Secondary codes

32 scattered trees

81 ruderal or ephemeral

202 young trees - self-set



Site Colne Vale Business Park	Client Colne Valley Contractors Ltd.
Project 21850 Preliminary Ecological Appraisal	Author EIC
Plan ref 21850/EIC	Revision 001

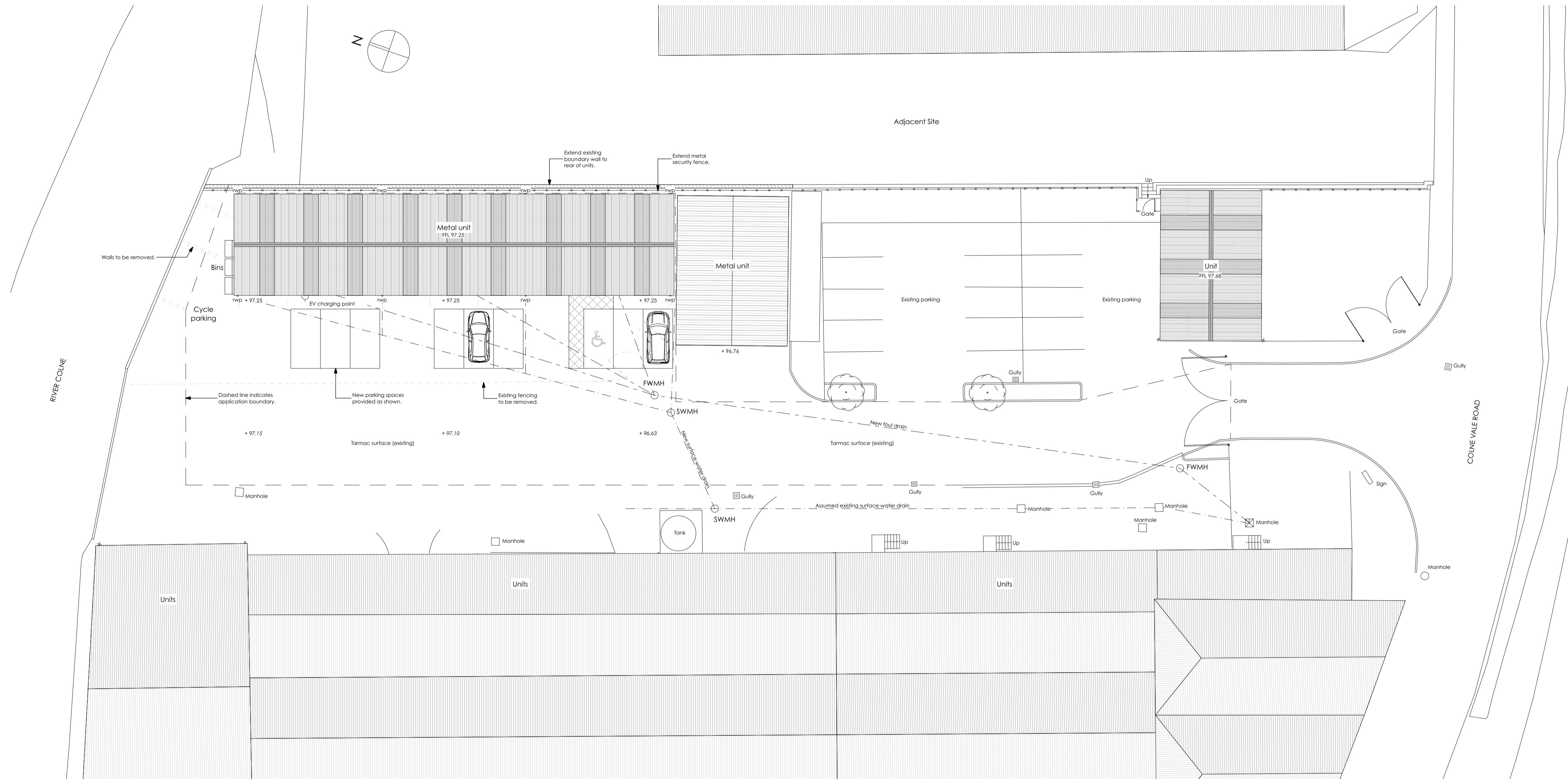
Contains Ordnance Survey data © Crown copyright and database right 2024

Appendix 2: Proposed Development Plan



General Notes

ALL DIMENSIONS MUST BE CHECKED AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK AND DESIGNER TO BE NOTIFIED OF ANY DISCREPANCIES.



Plan 1:200

0 1 2 3 4 5

Revision	Description	Issued	Checked	Date
----------	-------------	--------	---------	------

Client: Mr C. Thwaites
Project: Coine Vale Business Park, Coine Vale Road, Milsbridge
Drawing: Proposed Units - Site Plan

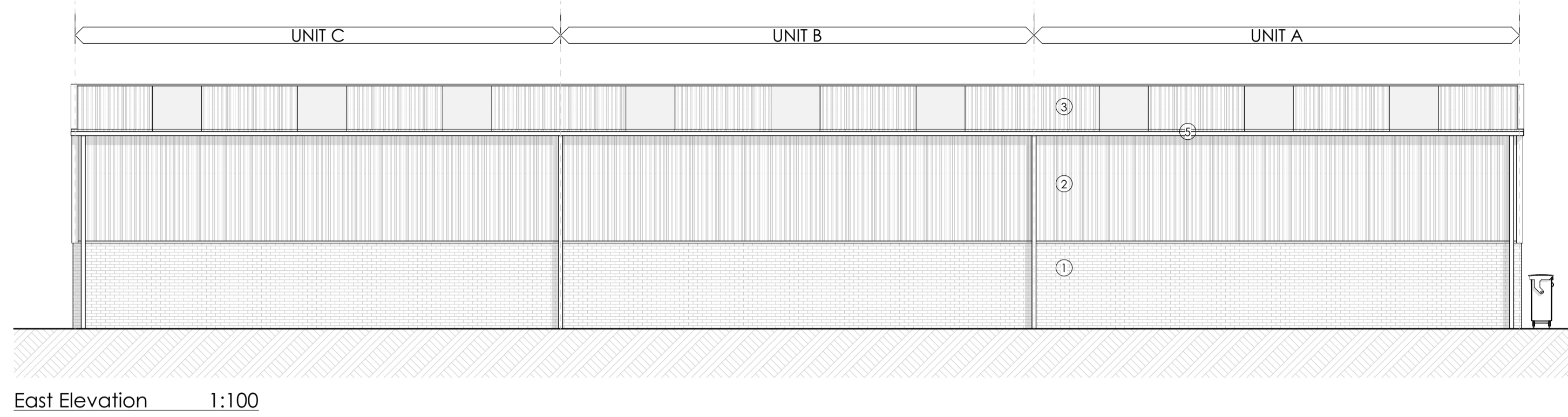
Drawing Status:

PLANNING

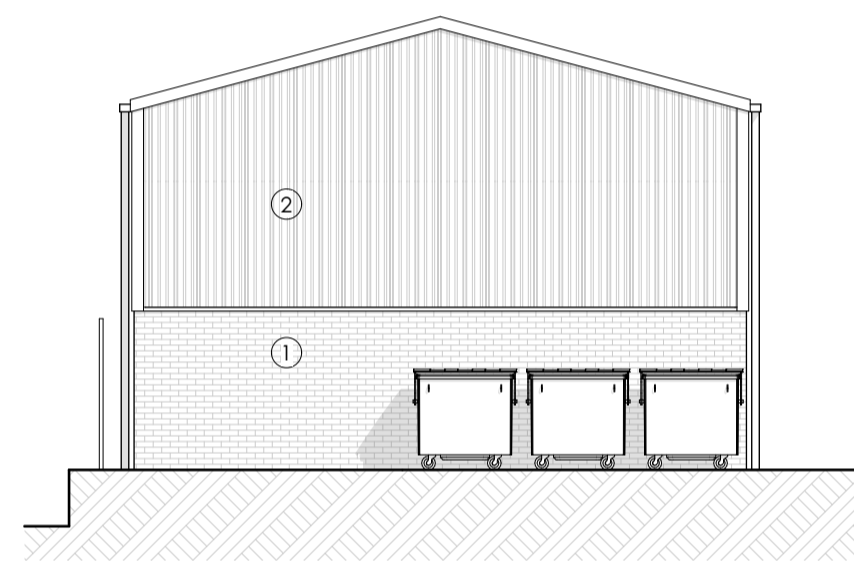
Date: JUL 23	Scale @ A1: 1:200	Drawn by: AB
Project No: 237	Drawing No: (0-) 02	Revision:

General Notes

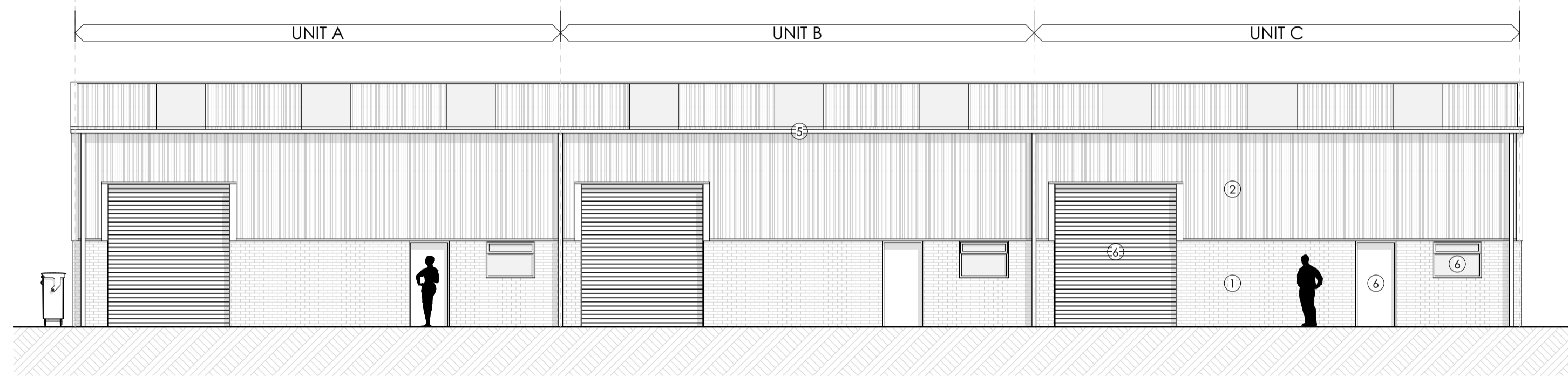
ALL DIMENSIONS MUST BE CHECKED AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK AND DESIGNER TO BE NOTIFIED OF ANY DISCREPANCIES.



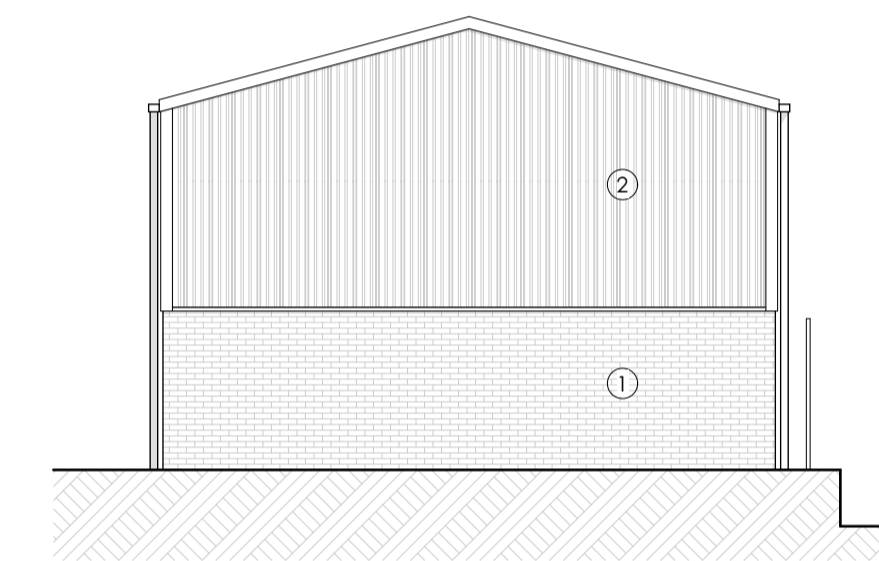
East Elevation 1:100



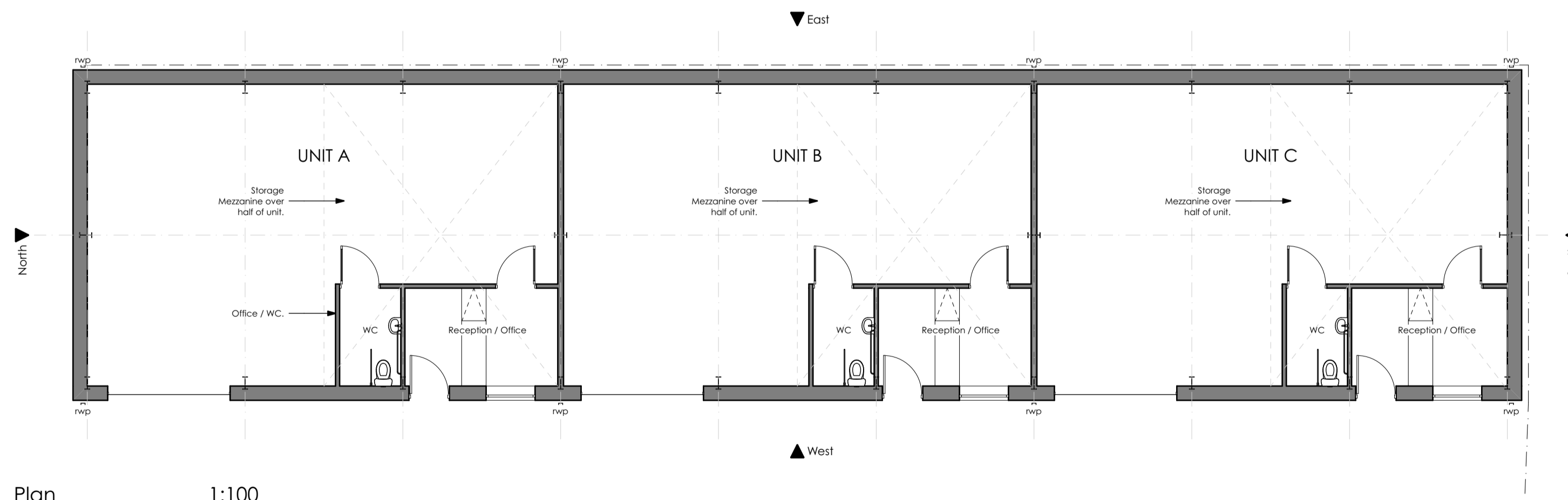
North Elevation 1:100



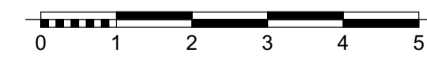
West Elevation 1:100



South Elevation 1:100



Plan 1:100



Revision	Description	Issued	Checked	Date
----------	-------------	--------	---------	------

Client: Mr C. Thwaites
Project: Colne Vale Business Park, Colne Vale Road, Millsbridge
Drawing: Proposed Units - Plans and Elevations

Drawing Status:

PLANNING

Date: JUL 23	Scale @ A1: 1:100	Drawn by: AB
Project No: 237	Drawing No: (0-) 01	Revision:

Appendix 3: Photographic Evidence



Photo 1: Access to the Site from the southern boundary.



Photo 2: Island with scattered trees on the eastern boundary of the Site.



Photo 3: Hardstanding in the northwest of the Site.



Photo 4: Hardstanding in the northeast of the Site.



Photo 5: Scattered trees on the peripheries of the Site.



Appendix 4: Glossary

Activity surveys - are used to assess the level of bat activity at a site. This can be done either by using equipment such as an AnaBat device, or manually walking around a site with a heterodyne detector, documenting the number of bat passes and interceptions.

Dawn surveys - begin around 2 hours before and up to sunrise when bats are returning to their roosts from foraging, and swarming behaviour can be seen close to roost entrances.

Dusk surveys - begin around 30 minutes before sunset and up to 2 hours afterwards. These are done in order to see bats emerging from their roost sites at night.

Echolocation – is a system similar to sonar that allows bats to travel and forage even in total darkness. Bats make a call and then listen to the returning echoes in order to build up a map of their surrounding area. This allows bats to gauge the identity and distance of an object by how long the echo takes to return to them.

Habitat - the ecological or environmental area that is inhabited by a particular species of animal, plant or other type of organism.

Hibernation - is a state of inactivity and metabolic depression characterized by lower body temperature, slower breathing, and lower metabolic rate. Hibernating animals conserve energy, especially during winter when food is short, tapping energy reserves, i.e. body fat, at a slow rate.

Hibernacula - typically consist of underground sites, such as caves and cellars, which remain relatively cold and humid. Bats will hibernate to conserve energy over the winter months when falling temperatures cause a drop in the abundance of insects. These will typically be colonised around November to around March.

Insectivorous – is when an organism feeds exclusively on insects.

Nocturnal - a behaviour characterized by being active during the night and sleeping during the day.

Maternity roosts – colonised around late May early June and consist of mature females and their young. These roosts need to be warm and quiet, and are used up until around August, with females typically leaving first and then the young.

Mating roosts – mating begins around late October to November. Males of most species use special mating calls to attract females. These can include purrs, clicks and buzzing.

Roost – a site where bats live during the day, rear young and hibernate. These can be in man made structures, such as buildings, bridges, tunnels, cellars and mines, or natural features such as mature trees and caves.

Roosts in buildings – many types of buildings will be used by bats. The most likely sites are agricultural buildings (e.g. farmhouses and barns), buildings with exposed wooden beams (greater than 20cm thick), buildings with weather boarding and/or hanging tiles, and buildings close to woodland and/or water.

Roosts in trees – these are typically in mature trees with deep sheltered cracks, under loose sections of bark, or in woodpecker holes.

Species – a group of organisms in which all members can interbreed and produce viable offspring.

Summer roosts (non-breeding) - these are generally occupied by groups of males and immature females during the summer, and are usually only occupied for a short period before the group moves to another location.

Swarming – a behaviour exhibited by bats returning to their roost sites at dawn. Bats can be seen repeatedly flying to and from the roost entrance, making it much easier for consultants to identify where roosts are on a building or structure.



Temporary/Transitory roosts – These are used after hibernation (March – April) before mature females disperse to maternity roosts and male/immature females colonise summer (non-breeding) roosts. Similarly, temporary roosts form before hibernation (August -October).

Underground Roosts – these are typically used during the winter and can be mines, caves, tunnels or cellars.



Appendix 5: Protected Species Information

The following species are fully protected in UK law, under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019:

- All UK bat species
- Dormouse
- Great Crested Newt and Natterjack Toad
- Large Blue Butterfly
- Otter
- Pine Marten
- Polecat
- Scottish Wild Cat
- Smooth Snake and Sand Lizard
- Various aquatic and plant species

These species are afforded the highest protection in the UK. Under this protection it is an offence to; deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animal of any such species; deliberately take or destroy the eggs of such an animal, or damage or destroy a breeding site or resting place of such an animal.

In addition to this it is an offence to be in possession of, or to control, transport, sell or exchange, or to offer for sale or exchange, a European Protected species.

The following species are protected under UK law, such as the Wildlife and Countryside Act 1981 (as amended):

- Badger
- Nesting birds
- Red Squirrel
- Reptiles (Adder, Common lizard, Grass snake, Slow worm)
- Water Vole
- White Clawed Crayfish
- Various bird species i.e. Barn Owl
- Various plant species

Therefore under this protection it is an offence to; kill, injure or take any of the above species.

Nesting birds are only protected during the breeding season whilst on their nest. In addition to the adults being protected, the eggs, young and nest itself whilst in use are protected.

The Wildlife and Countryside Act 1981 also contains measures to prevent the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales (e.g. Japanese Knotweed and Himalayan Balsam).



Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

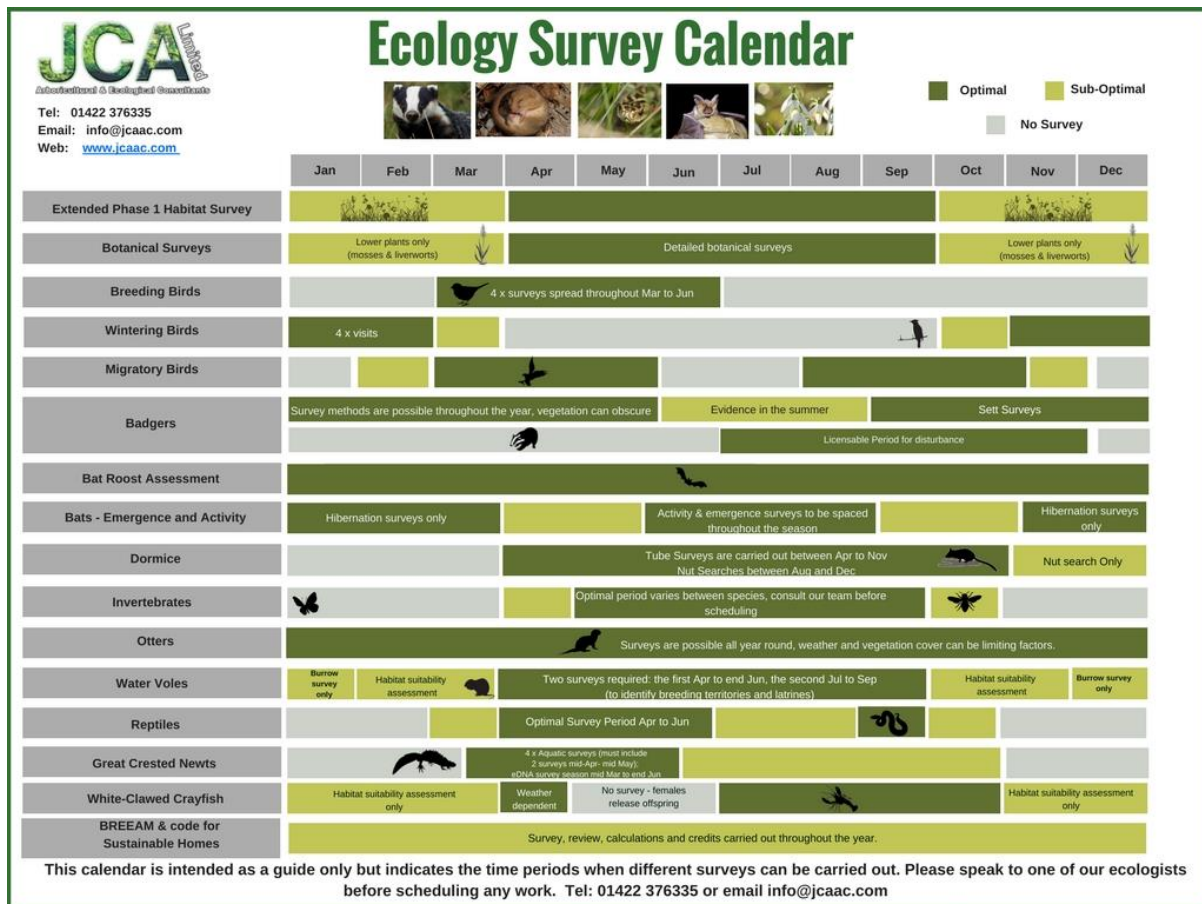
The following habitat types are protected under UK Law:

- Habitats that are used by protected species
- Habitats that fall within designated sites
- Hedgerows
- Individual trees/woods can be protected under Tree Preservation Orders



Appendix 6: Survey Calendar

Figure 2: Survey calendar for protected species and habitat surveys.



Appendix 7: 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, 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.

Eleanor Clark, Consultant Ecologist

BSc (Hons) Biology, MSc Biodiversity, Ecology & Ecosystems, MRSB.

Eleanor gained her undergraduate degree in biology in 2017 from the University of Portsmouth before going on to complete an MSc in Biodiversity, Ecology & Ecosystems at the University of York in 2019. Eleanor has 3 years of experience in ecological consultancy with experience surveying for a range of protected species. Eleanor holds a Natural England Level 1 great crested newt licence and is working towards her bat licence.

Rick Westwood, Graduate Ecologist

BA (Hons) History and Politics

Rick gained his undergraduate degree in History and Politics in 2001 from Leeds Metropolitan University before going on to complete a PGCE in History at the University of Leeds in 2003. After 18 years in secondary education and the NHS, Rick began assisting on bat emergence surveys in 2023, after which, he gained employment as a Graduate Ecologist at JCA Ltd.



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



.....
Eleanor Clark *BSc (Hons) MSc MRSB*

19/03/2024

Reviewed by



.....
19/03/2024

Approved by



.....
Adam West *BSc (Hons) ACIEEM*

22/03/2024



For and on behalf of **JCA Ltd**

Registered Office:

Unit 80

Bowers Mill

Branch Road

Barkisland

Halifax

HX4 OAD

Tel. 01422 376335

Fax. 01422 376232

Email: adam@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

