

ECOLOGICAL IMPACT ASSESSMENT

PLOT B WINDRUSH INDUSTRIAL ESTATE, WITNEY, OXFORDSHIRE

carried out by



commissioned by

HALE ARCHITECTURE

on behalf of

CANMOOR ASSET MANAGEMENT

MARCH 2024



ECOLOGICAL IMPACT ASSESSMENT

PLOT B WINDRUSH INDUSTRIAL ESTATE, WITNEY, OXFORDSHIRE

CONTENTS

EXECUTIVE SUMMARY	2
1 INTRODUCTION.....	4
1.2 Report Aims.....	4
1.3 Site Description Summary.....	5
1.4 Development Proposals.....	5
1.5 Quality Assurance.....	6
2 BASELINE CONDITIONS	10
2.1 Introduction.....	10
2.2 Evaluation Methodology.....	10
2.3 Desk Study.....	10
2.4 Habitat Survey.....	13
2.5 Protected Species Survey and Species of Conservation Concern	18
2.6 Summary of Ecological Importance	24
3 ASSESSMENT OF EFFECTS	26
3.1 Methodology	26
3.2 Summary of Development Proposals.....	26
3.3 Designated Sites	26
3.4 Habitats	26
3.5 Protected Species and Species of Conservation Concern	27
3.6 Biodiversity Impact Assessment	29
4 CONCLUSIONS.....	32
APPENDIX A: WILDLIFE LEGISLATION & SPECIES INFORMATION	33
APPENDIX B: NON-STATUTORY DESIGNATED SITES WITHIN 1KM OF WINDRUSH INDUSTRIAL ESTATE	36

Project title:	Plot B, Windrush Industrial Park		
Document title:	Ecological Impact Assessment	Project number:	8260
Client:	Hale Architecture on behalf of Canmoor	Author:	Bryan Tan / Charlie Durigan
Version 1	Initial Report	Issued on:	17 th July 2023
Version 2	Final Report (including BIA)	Issued on:	8 th March
Quality Assurance	Checked by:	Approved by:	
	Charlie Durigan	Andrew Ross / Rebecca Sandey	

The information, data and advice which has been prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report and its contents remain the property of Clarkson and Woods Ltd. until payment has been made in full.



EXECUTIVE SUMMARY

- Clarkson and Woods Ltd. was commissioned by Hale Architecture on behalf of Canmoor to carry out an ecological survey of Plot B within Windrush Industrial Park, Witney, Oxfordshire, OX29 7DX (central grid ref SP333103).
- This report has been completed to inform a full planning application for this plot of land. Development plans include the demolition of B1 and the removal of areas of ornamental vegetation habitat. Seven new large industrial warehouse units will be created within the plot with corresponding lorry loading bays, access and parking requirements. Soft landscaping plans are not yet known.
- An extended Phase 1 habitats survey and building inspection was completed on 19th April 2023 by an experienced ecologist, to assess the habitats and the potential for protected species to occur within the Site. All structures due to be demolished were inspected as thoroughly as possible externally for their potential to support roosting bats and nesting birds.
- The habitats on Site predominantly comprised existing buildings and hardstanding, as well as some areas of ornamental shrub, which had low intrinsic value for biodiversity. Several small elder trees were present within the Site boundary, assessed as offering negligible potential for supporting roosting bats. An area of rough grassland and scrub to the south of the Site offered some suitability for use by foraging and sheltering wildlife, although appeared to be subject to regular disturbance.
- The building B1 was assessed as offering Low potential for use by individual crevice roosting bats and so a dusk emergence survey was undertaken on 6th June 2023. No bats were recorded associated with the building or the wider plot. A UKHabitats survey and condition assessment were undertaken at this time to inform the BNG metric.
- Mitigation measures comprise vegetation clearance and tree works to be undertaken outside of the bird nesting season, or to be preceded by a nesting bird check by an ecologist no more than 48 hours prior to works being undertaken.
- New soft landscaping proposals within the Site has been provided, including the planting of species-rich native hedgerows and ornamental fruiting trees, as well as sowing appropriate diverse grass seed mixes within areas of amenity planting.
- Enhancement recommendations have been made, comprising the installation of bird and bat boxes within the new buildings.



-
- It is recommended that a Construction Environmental Management Plan in relation to biodiversity (CEMP: Biodiversity) be produced for the Site to detail best practice measures and a precautionary approach to habitat removal.
 - A Landscape and Environmental Management Plan (LEMP) has been produced for the operational Site, which covers how newly planted areas will be managed so as to maximise their biodiversity value and achieve the objectives of ecological mitigation and compensation. The LEMP also sets out any measures necessary to ensure protected species are appropriately accommodated within the operational Site, as well as ongoing monitoring of proposed ecological enhancements.



1 INTRODUCTION

- 1.1.1 Clarkson and Woods Ltd. was commissioned by Hale Architecture on behalf of Canmoor to carry out an Ecological Impact Assessment at 'Plot B' within Windrush Industrial Estate, Witney, Oxfordshire, OX29 7DX, hereafter referred to as 'the Site'.
- 1.1.2 This report has been prepared to support a full planning application for redevelopment of this plot within the wider industrial estate.
- 1.1.3 An ecological walkover survey and building survey was undertaken on 19th April 2023 by Paul Kennedy, an experienced ecologist, who is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). At the time of the survey the weather was sunny and 18°C with a light breeze. Only those species considered likely to be present are discussed in the report and, therefore, assessments for badger *Meles meles*, dormouse *Muscardinus avellanarius*, otter *Lutra lutra* and water vole *Arvicola amphibius* are not included due to a lack of suitable habitat identified within or adjacent to the Site.
- 1.1.4 An Extended Phase 1 Habitat survey of the Site and of adjacent plots was previously undertaken in March 2021 to inform planning applications for the redevelopment of Plots A, B and C. A report of findings for Plot B was not compiled at the time of the initial survey, as a planning application was not submitted. However, where relevant, these results have been discussed within this report.
- 1.1.5 The following documents were referred to, to inform this impact assessment:
- Plot B, Windrush Industrial Estate. Arboricultural Impact Assessment to BS 5837:2012. BEA Landscape Design Ltd., July 2023.
 - Plot B, Windrush Industrial Estate. Tree Retention & Removal Plan (23-043-P-04). BEA Landscape Design Ltd., July 2023.
 - Plot B, Windrush Industrial Estate. Planting Plan (23-043-P-06). BEA Landscape Design Ltd., July 2023.
- 1.1.6 Unless the client indicates to the contrary, information on the presence of species collected during the surveys will be passed to the county biological records centre in order to augment their records for the area. This is in line with the CIEEM code of professional conduct¹.
- 1.1.7 If no action or development of the Site takes place within 18 months of the date of this report, then the findings of the assessment and supporting surveys should be reviewed. An update of the surveys and / or assessment may be required.

1.2 Report Aims

- 1.2.1 The aims of this report are:
- To establish, as far as possible, the baseline ecological conditions existing on Site at the time of survey and to identify any likely future changes in the baseline conditions up to the point of commencement.
 - To determine likely significant effects resulting from the proposals upon the ecological features identified within the assessment.
 - To assess whether the proposals are likely to be in accordance with relevant nature conservation legislation and planning policies.
 - To identify where further surveys to establish baseline conditions, inform assessment or develop mitigation or compensatory measures are required.
 - To identify how mitigation or compensation measures will be secured, maintained and monitored.
 - To identify ecological enhancements to be carried out and how they will be implemented, maintained and monitored.

¹ Code of Professional Conduct. CIEEM, January 2019.

1.3 Site Description Summary

- 1.3.1 The Site is located within Windrush Industrial Estate on the western outskirts of Witney in West Oxfordshire.
- 1.3.2 The Site is approximately 2.14ha in area, and the approximate centre of the Site is at OS Grid Ref. SP 33279 10304, as shown in Figure 1.
- 1.3.3 The Site comprised a single building, currently in use as a furniture warehouse with offices. A tarmacked access road was present to the east of the unit, leading to a hardstanding yard to the south. An area of amenity grassland is present within the southeast corner of the plot. Ornamental planting, including species-poor hedges, were recorded along the north and east boundaries of the plot. One small semi-mature tree was present along the northern Site boundary.



Figure 1: Aerial Image of Site, Plot B (©2023 Google), showing Site Boundary (red) and Inaccessible area for survey (blue)

1.4 Development Proposals

- 1.4.1 The proposed works comprise the demolition of the existing building and its replacement with 7no. industrial units within two terraces, having mixed uses, with ancillary offices and service area, together with car, bicycle and motorcycle parking, and soft landscaping.
- 1.4.2 At this time, it is unknown whether the area of amenity planting to the north of the existing warehouse and the hedge to the east will be removed, although it is recommended that they are retained wherever possible. A single semi-mature tree to the north (front) of the building will be retained in situ.
- 1.4.3 Soft landscaping has been proposed for the Site, which includes new, native hedgerows, trees and shrub planting, and discrete areas of diverse grassland.
- 1.4.4 Figure 3 shows the most recent development proposals for the Site, while Figure 4 shows the landscaping proposals.
- 1.4.5 Any changes to the building design and layout and landscaping made subsequent to publication of this report should be issued to Clarkson and Woods for review. Ecological impacts and mitigation opportunities may be affected by any such changes.



1.5 Quality Assurance

- 1.5.1 All ecologists employed by Clarkson and Woods are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow the Institute's Code of Professional Conduct² when undertaking ecological work.
- 1.5.2 The competence of all field surveyors has been assessed by Clarkson and Woods with respect to the CIEEM Competencies for Species Survey (CSS)³.
- 1.5.3 This report has been prepared in accordance with the relevant British Standard: *BS42020: 2013 – Biodiversity: Code of Practice for Planning and Development*⁴. It has been prepared by an experienced ecologist who is a member of CIEEM. The report has also been subject to a two-stage quality assurance review by appropriately experienced ecologists who are members of CIEEM.

² CIEEM (2013). *Code of Professional Conduct*. www.cieem.net/professional-conduct.

³ CIEEM (2013). *Competencies for Species Survey (CSS)*. www.cieem.net/competencies-for-species-survey-css.

⁴ The British Standards Institution (2013). *BS42020: 2013 – Biodiversity: Code of Practice for Planning and Development*. BSI Standards Ltd.



Figure 2: Existing Site Plan



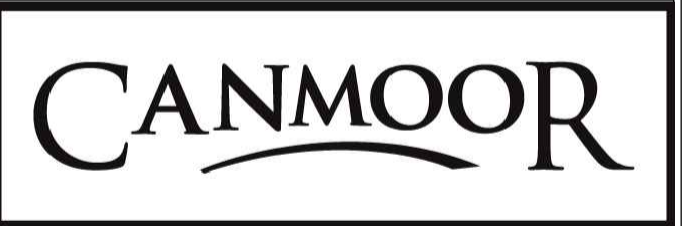
Disclaimer:
Subject to survey.

SCALE
0 10 20 50m

Notes:

- Ownership Boundary
(113,650m² / 28.08 acres / 11.37ha)
- Plot B Planning Application Boundary
(21,497m² / 5.31 acres / 2.15 ha)
- - - Footprint of existing building
- - - Smurfit yard line

-	First Issue	12.04.2023	HT	HA
Rev:	Notes:	Date:	Dwn:	Iss:
Suitability Code:				



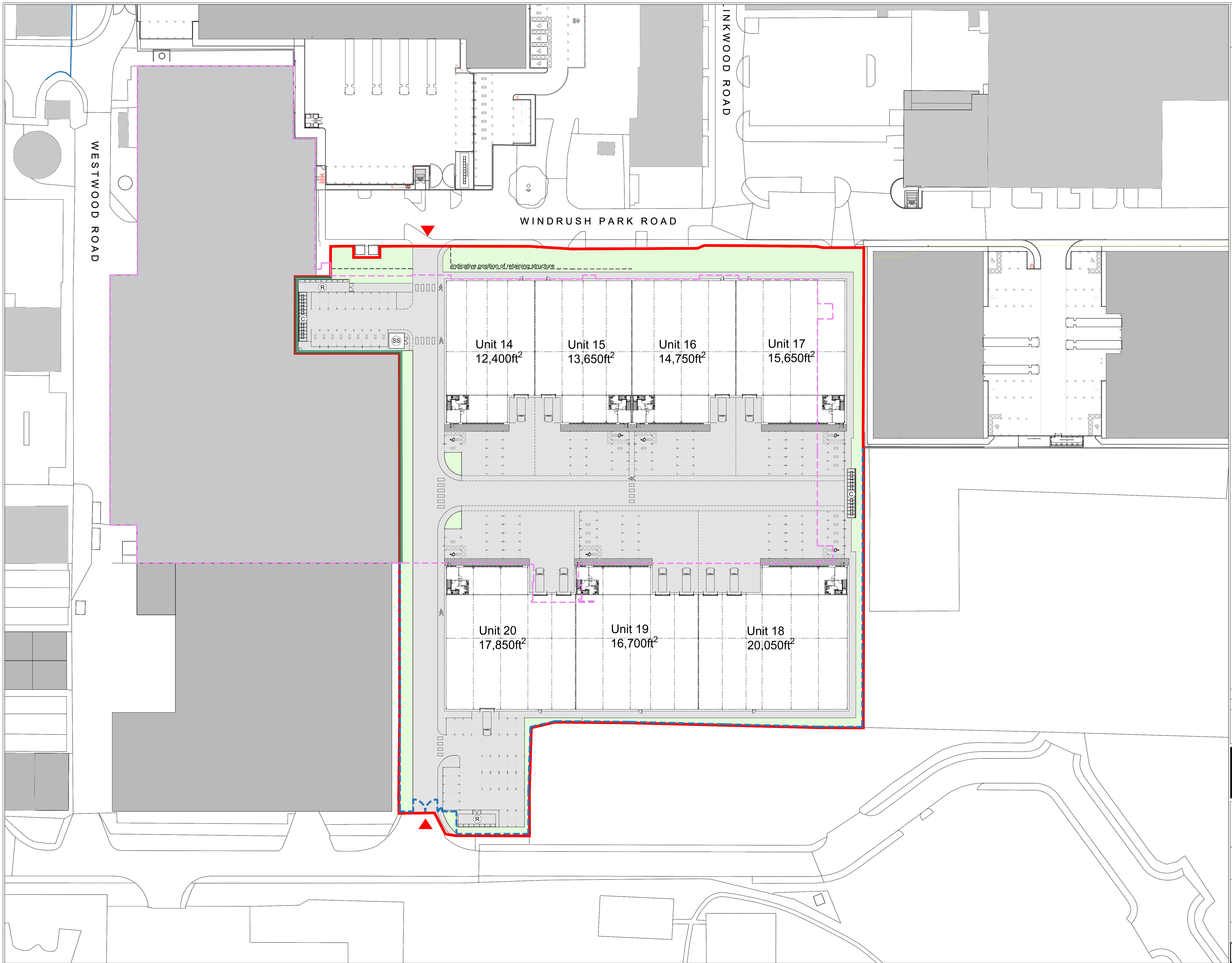
hale
ARCHITECTURE
22c Leathermarket Street, London, SE1 3HP

Project:
**Windrush, Witney
Plot B**

Drawing Title: Existing Site Plan		
Project No: 23052	Scale @ A1/A3 1:1250/1:2500	Revision: -
Drawing No: SKB2007		



Figure 3: Proposed Site Plan



Disclaimer:
Subject to survey.

SCALE
0 5 10 25m

Notes:

- Plot B Application Boundary (21,075m² / 5.20 acres / 2.10 ha)
- Footprint of existing building
- Proposed palisade fence 2.2m height
- New structure and facade to exposed existing internal wall
- Soft Landscape Area
Refer to BEA landscape plan
- In-situ concrete with a light brush finish
- Block Paving

AREA SCHEDULE (GIA)

UNIT 14 (GIA)	12,400ft²
Warehouse (Incl. office Undercroft)	10,900ft ²
Office (1st Floor)	1,500ft ²
Car parking spaces (incl disabled)	7
UNIT 15 (GIA)	13,650ft²
Warehouse (Incl. office Undercroft)	11,950ft ²
Office (1st Floor)	1,700ft ²
Car parking spaces (incl disabled)	9
UNIT 16 (GIA)	14,750ft²
Warehouse (Incl. office Undercroft)	12,850ft ²
Office (1st Floor)	1,900ft ²
Car parking spaces (incl disabled)	9
UNIT 17 (GIA)	15,650ft²
Warehouse (Incl. office Undercroft)	13,600ft ²
Office (1st Floor)	2,050ft ²
Car parking spaces (incl disabled)	14
UNIT 18 (GIA)	20,050ft²
Warehouse (Incl. office Undercroft)	17,950ft ²
Office (1st Floor)	2,100ft ²
Car parking spaces (incl disabled)	15
UNIT 19 (GIA)	16,700ft²
Warehouse (Incl. office Undercroft)	14,840ft ²
Office (1st Floor)	1,860ft ²
Car parking spaces (incl disabled)	10
UNIT 20 (GIA)	17,850ft²
Warehouse (Incl. office Undercroft)	15,800ft ²
Office (1st Floor)	2,050ft ²
Car parking spaces (incl disabled)	13
Additional car parking spread across all units	43
Total car parking spaces	120
TOTAL (GIA)	111,050ft²

© Cycle Parking
 Ⓡ Recycling/ Refuse Area
 Ⓢ Substation

EVCP charging points
(Planning Requirement is minimum 25%)

EV charging spaces: 30
(25% of total proposed 120 car parking spaces)

A Planning Issue 04.03.2024 SK HA
 Rev: Notes: Date: Dwn: Iss:
 Suitability Code:
PLANNING

CANMOOR

hale
ARCHITECTURE
22c Leathermarket Street, London, SE1 3HP

Project:
Windrush, Witney
Plot B

Drawing Title:
Proposed Hard and Soft Landscape

Project No: 23052	Scale @ A1/A3 1:500/1:1000	Revision: A
----------------------	-------------------------------	-----------------------

Drawing No:
PL-1004



Figure 4: Planting Plan



2 BASELINE CONDITIONS

2.1 Introduction

- 2.1.1 This section sets out the results of the Desk Study and ecological field surveys along with an evaluation of their relative importance in order to inform the Impact Assessment. The methodologies associated with the baseline assessment are summarised with each ecological feature's subheading below.
- 2.1.2 The specific surveys carried out were chosen on the basis of the likelihood, in our considered opinion, of each protected species or Species of Conservation Concern being present on or within the vicinity of the Site. This is informed by the Site's geographic location and the habitat types present within and around the Site. Species-specific baseline surveys for bats were chosen.
- 2.1.3 Details of the legislative protection afforded to those protected species which have been identified as occurring or potentially occurring on the Site are given in Appendix A. Species of Conservation Concern are defined as those appearing in any of the following; Priority Habitats and Species under Section 41 of the Natural Environment and Rural Communities Act (2006); red or amber-listed birds within the British Trust for Ornithology's Birds of Conservation Concern (2015); and any specific local conservation priority species such as those listed in Red Data Books.

2.2 Evaluation Methodology

- 2.2.1 Each recorded ecological feature, whether it is a species, a habitat or a site designated for nature conservation, is described in turn in this section to provide the pre-development baseline conditions on Site. Subsequently, an evaluation of each feature's 'ecological importance' is made. The evaluation of ecological importance is informed by the criteria provided within the CIEEM Guidelines for Ecological Impact Assessment (2018)⁵.
- 2.2.2 With due consideration to the criteria, each feature is classified on a geographical scale of ascending importance as follows; Negligible, Site, Local, District, County, National and International. The chosen geographic level of importance is considered that which best represents the scale at which the loss of the Site's area or population of the feature would have the greatest impact. Where sufficient survey information not available to determine the importance of a species or habitat present on the Site, the importance of the receptor is marked as 'uncertain' and based upon the professional judgement of the author together with available relevant desk study information.
- 2.2.3 Once importance has been determined for each feature, those of Local importance or above will be considered to be Important Ecological Features (IEFs). Non-IEFs will typically not be considered further within the impact assessment. However, where a feature does not qualify as an IEF but is afforded specific legal protection or coverage under a particular legislation or planning policy it will also be assessed in order to ensure the scheme's legal and policy compliance.

2.3 Desk Study

Methodology

- 2.3.1 Statutory designated sites for nature conservation were identified using DEFRA's web-based MAGIC map database (www.MAGIC.gov.uk). International-level sites such as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) within 5km from the Site were searched for. National-level sites such as National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) within 2km of the Site were searched for.
- 2.3.2 The Thames Valley Environmental Records Centre (TVERC) was consulted in 2021 for records of protected species and species of conservation concern within 1km of the Site, with an extended search for bats records within 2km. TVERC was also asked to provide details of locally-designated and non-statutory sites for nature conservation within 1km of the Site.

⁵ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management. www.cieem.net



- 2.3.3 Clarkson and Woods' own database of ecological records derived from past survey work was also consulted for further locally-relevant data.
- 2.3.4 The Natural England/DEFRA web-based MAGIC map database was also consulted for records of European Protected Species (EPS) licences issued for mitigation projects concerning EPS within 2km of the Site.
- 2.3.5 The West Oxfordshire Local Plan 2031 (Adopted September 2018) was consulted for details of planning policies relevant to designated sites, protected species and habitats, and general ecological and environmental protection.
- 2.3.6 The Oxfordshire Biodiversity Action Plan (BAP) and Conservation Target Areas was consulted for information on conservation priority species and habitats which may require further consideration and weight within Ecological Impact Assessments.
- 2.3.7 Ordnance Survey maps (1:25,000) and aerial images of the Site were examined online (bing.com/maps and maps.google.co.uk) to allow a better understanding of the context of the Site and its connections to potentially important habitats, known species records and protected sites.

Limitations

- 2.3.8 An update of the TVERC data was not requested at this time as the data was less than two years old and the potential impacts associated with the proposed development are considered to be minimal given the industrial nature of the existing site.
- 2.3.9 The data presented within this report constitutes a summary of the data obtained from the local records centre. Should additional detail be required on any of the records described within this report Clarkson and Woods Ltd. should be contacted.
- 2.3.10 It should be noted that the data obtained from within the search area will not constitute a complete record of habitats and species present within the search area. It is therefore possible that protected species may occur within the vicinity of the proposed development site that have not been identified within the desk study.

Desk Study Findings

Designated Sites

Statutory Designated Sites

- 2.3.11 The Site does not lie within 5km of any internationally designated sites, or within 2km of any nationally designated sites.

Local and Non-statutory Designated Sites

- 2.3.12 Data from TVERC identified six locally important sites for nature conservation within 1km of Windrush Industrial Estate in which the current Site is situated, and these are listed in Table 1 and shown in map form in Appendix B.

Table 1: Summary of local and non-statutory designated sites for nature conservation

Site Name	Size, Distance and Direction from Site	Reason for Designation	Importance
Crawley Mead Local Wildlife Site (LWS)	4.2ha, 670m north	Floodplain grazing marsh area covering two fields separated by a ditch.	County
Maggots Grove Wood LWS	2.5ha, 500m north	Broadleaved semi-natural woodland on west and northwest facing slope above the River Windrush.	County
Minster Lovell Bank LWS	5.1 ha, 820m northwest	Wetland area adjacent to the River Windrush, being largely wooded with small open areas of pond sedge-dominated fen.	County
Minster Lovell Meadows LWS	34.3ha, 780m north	Lowland meadow and floodplain grazing marsh along the River Windrush.	County



Site Name	Size, Distance and Direction from Site	Reason for Designation	Importance
Crawley Marsh LWS	6.1 ha, 850m northeast	Unimproved lowland meadow with a high botanical diversity.	County
Upper Windrush Conservation Target Area	1280ha, 500m north	Lowland meadows and floodplain grazing marsh along the riverside, including steeper valley slopes of limestone grassland.	County

Local BAP

2.3.13 The following species and habitats relevant to the Site are listed within the Oxfordshire Biodiversity Action Plan (BAP) and Conservation Target Areas

- Woodland and hedgerows

Planning Policy

2.3.14 The following planning policy was identified within the West Oxfordshire Local Plan 2031 (Adopted September 2018).

Policy EH3: Biodiversity and Geodiversity

The biodiversity of West Oxfordshire shall be protected and enhanced to achieve an overall net gain in biodiversity and minimise impacts on geodiversity, including by:

- *giving sites and species of international nature conservation importance and nationally important sites of special scientific interest the highest level of protection from any development that will have an adverse impact;*
- *protecting and mitigating for impacts on priority habitats, protected species and priority species, both for their importance individually and as part of a wider network;*
- *avoiding loss, deterioration or harm to locally important wildlife and geological sites and sites supporting irreplaceable habitats (including ancient woodland, Plantations on Ancient Woodland Sites and aged or veteran trees), UK priority habitats and priority species, except in exceptional circumstances where the importance of the development significantly and demonstrably outweighs the harm and the harm can be mitigated through appropriate measures and a net gain in biodiversity is secured;*
- *ensuring development works towards achieving the aims and objectives of the Conservation Target Areas (CTAs) and Nature Improvement Areas (NIAs);*
- *promoting the conservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations, particularly within the CTAs and NIAs;*
- *taking all opportunities to enhance the biodiversity of the site or the locality, especially where this will help deliver networks of biodiversity and green infrastructure and UK priority habitats and species targets and meet the aims of CTAs;*
- *ensuring that all applications that might adversely affect biodiversity are accompanied by adequate ecological survey information in accordance with BS 42020:2013 unless alternative approaches are agreed as being appropriate with the District Council's ecologist;*
- *all major and minor applications demonstrating a net gain in biodiversity where possible. For major applications this should be demonstrated in a quantifiable way through the use of a Biodiversity Impact Assessment Calculator (BIAC) based on that described in the DEFRA Biodiversity Offsetting guidance or a suitably amended version. For minor applications a BIAC will not usually be required but might be requested at the Council's discretion;*
- *all development incorporating biodiversity enhancement features. All developments will be expected to provide towards the provision of necessary enhancements in areas of biodiversity importance.*



2.4 Habitat Survey

Habitat Survey Methodology

- 2.4.1 A habitat survey was carried out based on standard field methodology set out in the Handbook for Phase 1 Habitat Survey (2010 edition)⁶. The survey was completed by Paul Kennedy ACIEEM. Paul has nine years' experience undertaking ecological surveys and over 20 years' experience surveying for bats. Paul holds a personal survey licence for bats (NE Level 2 Reg. No. 2015-14471-CLS-CLS).
- 2.4.2 Botanical names follow Stace (1997)⁷ for higher plants and Edwards (1999)⁸ for bryophytes.
- 2.4.3 The results of the Phase 1 Habitats Survey are included in map form on Figure 4. Habitats are mapped following the codes and conventions described within the Phase 1 Habitat Survey Handbook and Target Notes (Table 2) are used to describe habitats not readily conforming to recognised types and evidence of, or potential for, protected species and species of conservation concern. Photographs of the Site are provided below.

Habitat Assessment Limitations

- 2.4.4 A small, fenced area of vegetation (outlined in blue within Figure 1), measuring approx. 0.3ha within the southeast of the redline boundary, could not be accessed during the survey due to stored materials, which blocked the gate. A best effort was made to assess the vegetation within this area from the fenceline, which was considered generally appropriate given the overall lack of diversity and disturbed nature of the area.
- 2.4.5 Two small, standalone buildings were present within the south of the Site, which were essentially small concrete sheds and were generally featureless (Photograph 1 refers). These could not be fully accessed, although did not appear to offer potential for wildlife, including roosting bats, from an external inspection and from the doorway.



Photograph 1: Concrete sheds that could not be fully accessed.

⁶ Nature Conservancy Council. (1990 - 2010 edition). *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*. Joint Nature Conservation Committee

⁷ Stace, C. (1997). *New Flora of the British Isles Second Edition*. Cambridge University Press

⁸ Edwards, S.R. (1999). *English Names for British Bryophytes*. BBS, Cardiff



Hardstanding

Field Survey Results

- 2.4.6 The Site comprised extensive hardstanding, including pavements, existing car parks and access roads which were all in regular use.

Evaluation

- 2.4.7 The hardstanding across the Site is considered to be of **Negligible** importance to biodiversity.

Trees

Field Survey Results

- 2.4.8 Two semi-mature elder *Sambucus nigra* tree were present at the northern Site boundary. The western tree will not be affected by development proposals, although the eastern tree will be removed. These features may provide habitat for a range of wildlife.

- 2.4.9 Other young native and non-native trees were noted within the boundary habitat; none were assessed as offering potential for roosting by bats, although may be utilised by nesting birds.

Evaluation

- 2.4.10 The trees on Site are considered to be of **Site** importance for biodiversity.

Hedgerow and Ornamental Shrub

Field Survey Results

- 2.4.11 There were several small areas of ornamental shrub planting present along the northern elevation, and a long stretch of ornamental shrub on the western border of building B1, all of which is due to be removed within the proposed development plans. Many of the ornamental shrub species were non-native (Photographs 2 and 3), including species such as *Pyracantha* and *Cotoneaster sp.* The ornamental shrub habitat totalled approximately 440m² and was isolated from other habitats outside of the Site boundary due to the surrounding pavement and road hardstanding.

Evaluation

- 2.4.12 The ornamental shrub habitat on Site is likely to be of **Site** importance due to the presence of low diversity, frequently managed, amenity non-native plants and their isolation both within the Site itself and within the wider landscape.

Grassland

Field Survey Results

- 2.4.13 Discrete sections of amenity grass were present around the Site at the base of ornamental shrub planting, with species such as bristly oxtongue *Helminthotheca echioides*, selfheal *Prunella vulgaris*, broadleaf plantain *Plantago major* and creeping buttercup *Ranunculus repens* recorded.

- 2.4.14 There was a small area of rough grassland with dense bramble scrub around the periphery, scattered scrub throughout and piles of rubble present along the southeastern boundary of Plot B (Photograph 3 refers). This area appeared to be used for materials storage and subject to regular vehicular disturbance. The grassland habitat totalled approximately 0.3ha and extended outside of the Site boundary to the south and southeast, though it was separated by metal fence along the boundary edge.

Evaluation

- 2.4.15 The grassland habitat on Site is likely to be of **Site** importance due to the presence of low diversity and ornamental non-native plants, their isolation both within the Site itself and within the wider landscape and the existing levels of disturbance within the Site.



Photograph 2: Ornamental shrub habitat along northern elevation of building B1



Photograph 2: Ornamental shrub habitat along the eastern boundary.



Photograph 3: Grassland with rubble pile at southeast boundary of Plot B

Buildings

Field Survey Results

- 2.4.16 There was one building on Site with Figure 4 showing their location.
- 2.4.17 Building B1 took up the majority of the Site. It was a large multipurpose storage unit constructed of brick, with a metal-frame, saw-toothed roof made from asbestos (or similar) with Perspex roof lights present. A mezzanine office with a flat roof was located at the northern side of the building. An open metal structure used as a shelter and vehicle loading area was present along the southern elevation. The building was occupied at the time of survey, although the busyness had scaled back somewhat since a previous survey in 2021. The hardstanding areas around the plot were in constant vehicular use.

Evaluation

- 2.4.18 The evaluation of buildings for biodiversity is discussed in 'bats and 'birds' sections below.

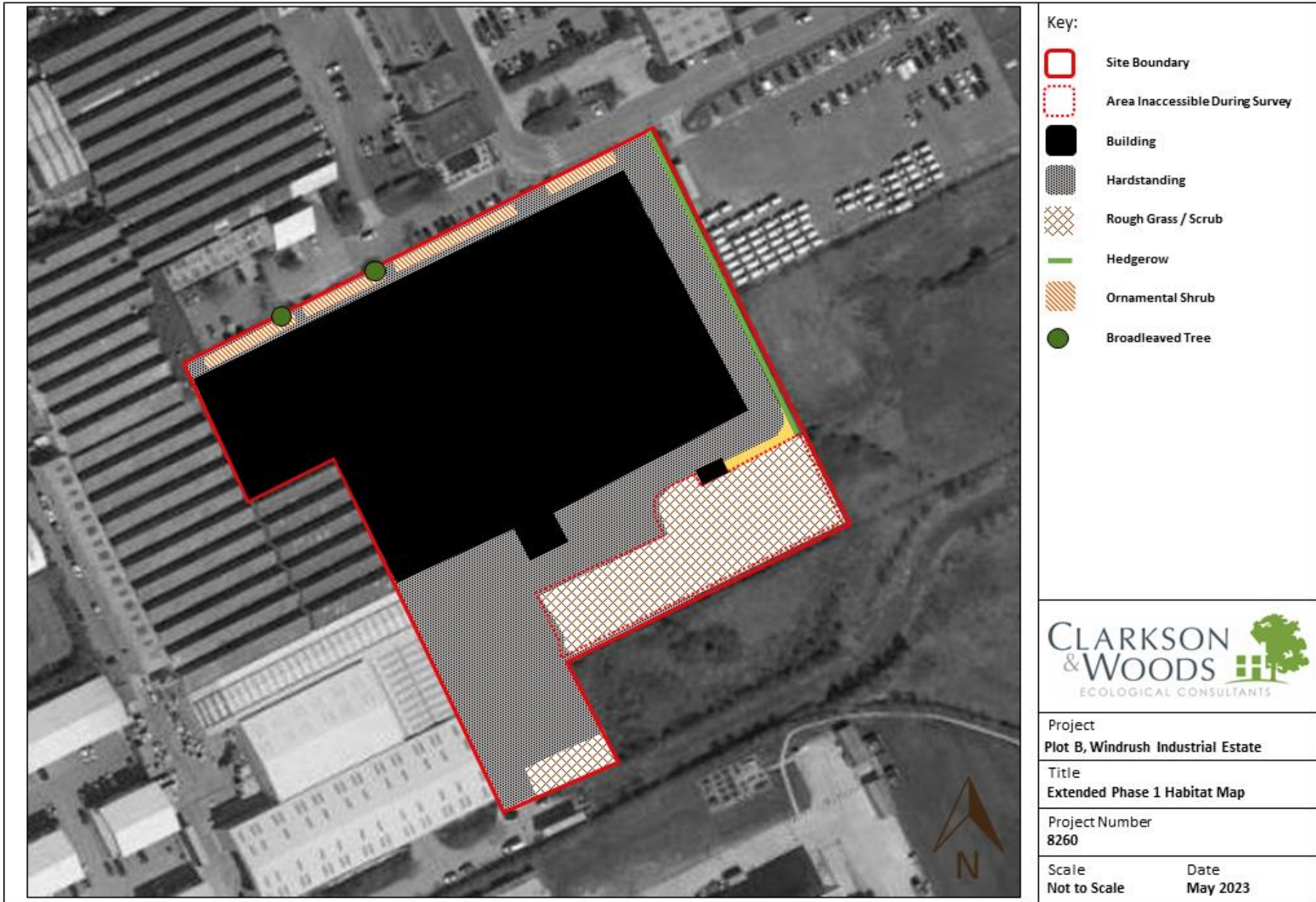


Figure 4: Extended Phase 1 Habitat Plan



2.5 Protected Species Survey and Species of Conservation Concern

Bats

Methodology

- 2.5.1 The assessment of the suitability of the site for foraging and roosting bats was based on current guidance set out by the Bat Conservation Trust⁹.
- 2.5.2 *Buildings*: the exteriors of the buildings were examined through the use of ladders, torches and binoculars for potential roosting features (PRFs). Wherever possible, these points were thoroughly investigated using ladders and a video fibrescope to determine the likelihood of their occupation and evidence of presence. Extra factors taken into consideration included the potential for noise disturbance to the potential roost feature, exposure to the elements, lighting levels, proximity/connectivity of vegetation and water and whether these PRFs led on to cavities further into the structure.
- 2.5.3 Internally, all accessible roof voids and accessible parts of the building were entered where safe and possible to do so in order to describe their characteristics and to look for PRFs. A 1 million candle-power torch, ladders and a video fibrescope were used where necessary. Any signs of occupation including urine staining, prey remains, fur rubbing marks and droppings were noted where found.
- 2.5.4 Following the inspections, each building was assigned a 'high', 'medium', 'low' or 'negligible' category as a guide to inform any necessary further survey effort as stipulated in the Bat Surveys Good Practice Guidelines (Bat Conservation Trust, 2016).
- 2.5.5 *Trees*: an inspection of trees on Site was carried out from the ground, using binoculars, to record any signs of use of the tree by bat species. A ladder, powerful torch and a video fibrescope were available. Features such as frost cracks, rot cavities, flush cuts, split or decaying limbs (including hazard beams), loose bark and dense plates of ivy were inspected and recorded. Any signs of staining (from urine or fur rubbing) and scratch marks below potential access points were noted, and a search was made for droppings underneath these features.
- 2.5.6 *Habitat*: the habitats within the Site were appraised for their suitability for use by foraging and commuting bats. In particular, the connectivity of the habitats on Site to those lying beyond was taken into account. Vegetated linear features are typically important for many species to navigate around the landscape, while the presence of woodland, scrub, gardens, grassland and wetland features increases a site's foraging resource value to bats. The potential for noise or lighting disturbance which may affect commuting links was also recorded.
- 2.5.7 *Dusk Emergence Survey*: The survey was undertaken on 6th June 2023 on a warm and cloudy evening (>10°C; 8/8 cloud cover) with light breeze, to ensure optimal conditions for emergence and foraging activity (insect activity being significantly reduced at lower temperatures and during higher winds).
- 2.5.8 During the survey, ecologists were positioned around the buildings to ensure all elevations requiring monitoring could be adequately observed (Figure 6). The dusk survey commenced 15 minutes before sunset (21:05) and continued until at least 1.5 hours after sunset (22:50). The ecologists were equipped with handheld bat detectors (Anabat Scout or an iPad with Echo Meter Touch). Recordings made were subsequently analysed using computer software (Kaleidoscope) to confirm or identify bat species recorded.
- 2.5.9 The survey was carried out by Andrew Ross MCIEEM, Heather Parris ACIEEM, and Bryan Tan. Andrew has 15 years' experience undertaking ecological surveys, has a BSc and Msc in relevant subjects and holds a licence for the survey of bats in England (Natural England Level 2 Reg. No. 2015-13114-CLS-CLS). Heather has eight years of experience in nature conservation and ecological surveys. Heather holds a BSc (Hons) in Conservation Biology and Ecology. Bryan has a MBiolSci in Zoology and has over 1 years' survey experience with the Wildlife Trusts. Bryan is an assistant ecologist with less than one years' industry experience. All three

⁹ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

surveyors have been assessed under the Clarkson and Woods QA processes as competent to complete the survey.

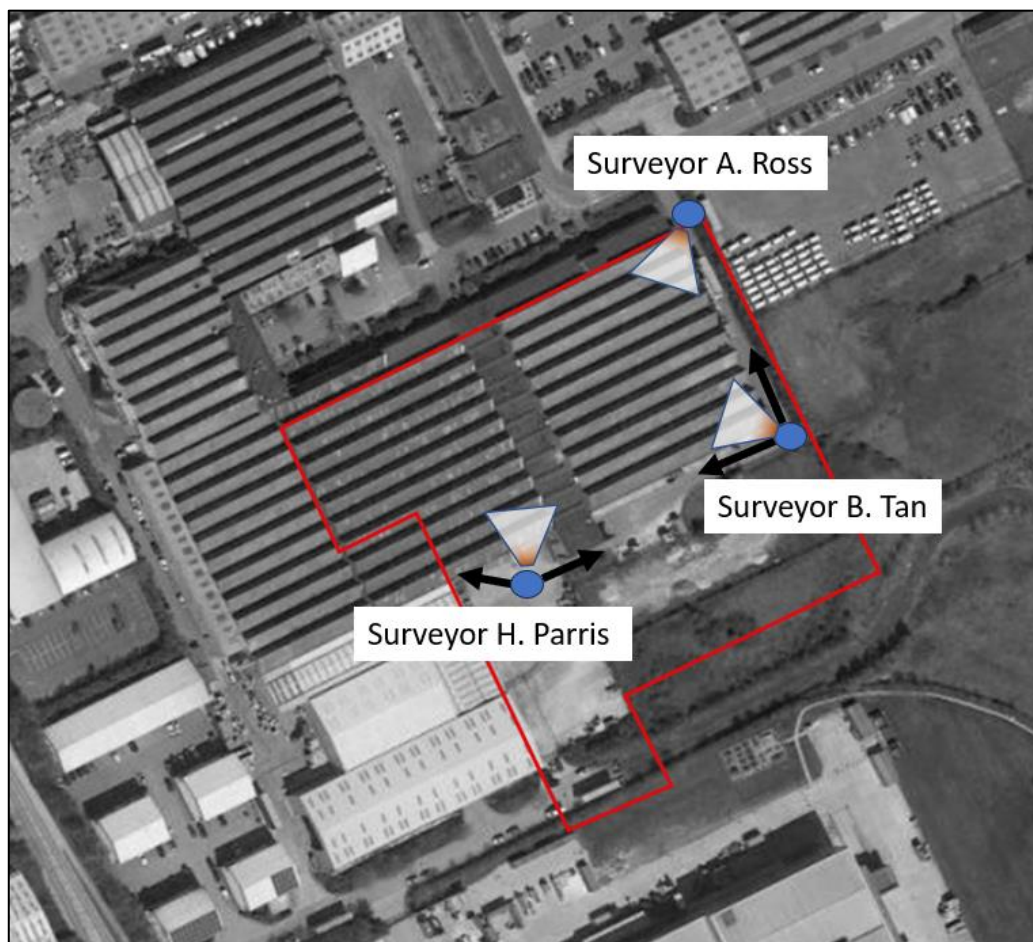


Figure 5: Surveyor locations during dusk emergence survey with movement patterns to cover as much of the building as possible

Limitations

- 2.5.10 Bats are very small creatures, capable of secreting themselves away into extremely small spaces and it is possible that these animals, or their signs, might have been missed during the survey if they are normally present opportunistically or in small numbers for a short period of time each year.
- 2.5.11 Not all features in trees or buildings suitable for use by bats are visible from the ground and there can be no external evidence of use of features by bats; consequently, it is only possible to make a best effort when carrying out such a survey.
- 2.5.12 Due to the large scale of the existing building, the dusk emergence survey was undertaken to target only those features that were observed to offer suitability for roosting bats. It was not possible to observe the roof of the main building during the survey, given its height, however, a best effort was made to ensure that any bats emerging from features that were out of sight and had not been identified were covered. Given that no bats were recorded during the survey, it is considered highly unlikely that any were missed as a result.

Desk Study Information

- 2.5.13 No Natural England bat mitigation licences have been granted within 2km of the Site and no other in-house records exist for bats in the immediate area surrounding the Site.
- 2.5.14 TVERC returned records of bats within 2km of the Site within the last 20 years, summarised in Table 2.



Table 2: Bat species recorded within 2km of the Site since 2003

Common name	Scientific name	Details
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	22 individual records between 2010 and 2019
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	22 individual records between 2010 and 2019
Pipistrelle species	<i>Pipistrellus sp.</i>	38 individual records between 2003 and 2017, with 35 of these being injured bat records
Noctule	<i>Nyctalus noctula</i>	18 individual records between 2010 and 2018
Leisler's	<i>Nyctalus leisleri</i>	3 individual records between 2016 and 2018
Serotine	<i>Eptesicus serotinus</i>	6 individual records between 2010 and 2017
Whiskered	<i>Myotis mystacinus</i>	3 individual records between 2014 and 2018
Daubenton's	<i>Myotis daubentonii</i>	10 individual records between 2012 and 2017
Natterer's	<i>Myotis nattereri</i>	3 individual records between 2005 and 2016
Brown long-eared	<i>Plecotus auritus</i>	9 individual records and 2 roost records between 2010 and 2019
Barbastelle	<i>Barbastella barbastellus</i>	3 individual records between 2017 and 2019

Field Survey Results

Habitat

- 2.5.15 The Site offered a generally poor diversity of habitats, although it was adjacent to more suitable off-site habitats. The Site itself was sub-optimal for foraging bats as it mainly comprised buildings and hardstanding, with only discrete areas of vegetation. The hedgerow may act as a suitable commuting feature for bats.
- 2.5.16 There was a small group of young elder trees in front of the northern office entrance of the building. These were surrounded by pavement and hardstanding road surfaces and did not offer potential roosting features for bats.
- 2.5.17 Few floodlights were noted around the warehouse; and it is assumed that these are regularly illuminated.

Buildings

- 2.5.18 **Building B1** was a large double-storey, single-skinned brick structure with unlined asbestos or cement fibre sheet roofing, and security light present at the northeastern corner. Most of the external features of the building were tight and in good condition, however minor gaps were present beneath soffits and fascia panels of the roof of the eastern and southern edges (Photograph 4 and 5).



Photograph 4 and 5: Southern and eastern elevations of B1, respectively

- 2.5.19 These gaps may provide potential roosting features for individual/small numbers of crevice-dwelling bats such as *Pipistrelle* species. The building held no potential for night roosting due to the lack of open entrances, and the fluctuating temperatures of the single-skinned asbestos type roof meant that the building held no potential for hibernation roosting either.
- 2.5.20 Internally, there was no roof void and the building comprised one large room with an office mezzanine (Photographs 6 and 7). No evidence of bats was noted within the building and there were no features that could be used as entry points nor roosting features identified. The glazed roofing gave rise to high light levels internally.
- 2.5.21 Overall, the building was considered to be of **Low** potential for individual crevice roosting bats during the day, and was assessed as offering **Negligible** potential for hibernating bats or for maternity roosting.





Photograph 6 and 7: Internal views of mezzanine office and main warehouse of B1

Emergence Surveys

- 2.5.22 No bats were recorded emerging from the building. In addition, no bat activity was recorded during the survey by any surveyor.

Evaluation

- 2.5.23 Bats on Site are considered to be of **Negligible** importance, as the Site offered limited suitability for foraging / commuting bats and for roosting bats within B1. However, further survey did not record any bats utilising the Site following appropriate survey.

Birds

Methodology

- 2.5.24 Any buildings and vegetation were surveyed for signs of use by nesting birds and any birds seen or heard during the survey were noted. The Site's potential to support bird species of particular conservation concern (i.e. Schedule 1, NERC S41 and Red List species) was assessed, taking into consideration the bird species assemblage observed during the survey, the habitats present on and around the site, the context of the site in the wider landscape and the results of the desk study.

Desk Study Information

- 2.5.25 The TVERC data search returned 37 BTO red and amber listed bird species within 2km of the Site within the last 20 years; including bullfinch *Pyrrhula pyrrhula*, dunnock *Prunella modularis*, fieldfare *Turdus pilaris*, house sparrow *Passer domesticus*, redwing *Turdus iliacus*, song thrush *Turdus philomelos*, starling *Sturnus vulgaris* and swift *Apus apus*. Although exact details of the bird sighting locations were not provided it is likely that these (and other birds) were noted using the surrounding arable land to the north of the Site, or were sighted along the River Windrush to the north and north west as the Site itself does not offer much in the way of foraging and nesting habitat for a wide variety of species.

Field Survey Results

- 2.5.26 A blue tit *Cyanistes caeruleus* was seen entering and exiting a small gap above a window at the northeastern elevation, next to the spiral stairs. One wood pigeon *Columba palumbus* nest was found in the hedgerow of the eastern hedgerow (Photograph 8 refers). A little owl *Athene noctua* was also sighted by existing occupants of the building within the Site and reported (pers. comms.).

- 2.5.27 Habitats within the Site offer some potential for foraging, limited to discrete areas of amenity grass, scrub and rough grass to the south of the Site.



Photograph 8: Wood pigeon nest in hedgerow at eastern boundary.

Evaluation

- 2.5.28 Birds are considered to be of **Site** importance due to the possibility of them nesting in features within the buildings, as well as the shrubs present on Site.

Amphibians

Methods

- 2.5.29 All waterbodies within 250m of the Site were identified using Ordnance Survey maps and aerial imagery. Waterbodies within the site ownership and on publicly accessible land were assessed during the field survey for their suitability to support amphibian species where access was possible.
- 2.5.30 Where suitable water bodies were identified on accessible land a Habitat Suitability Index (HSI) score was calculated for each one following the methodology described by Oldham et al¹⁰. HSI scores give a relative indication of the likelihood that a water body would support breeding great crested newts. Factors which increase these scores include the presence of other ponds nearby, water quality, pond size, absence of fish/waterfowl, vegetation cover and shading.
- 2.5.31 Terrestrial habitats were also assessed for their suitability for foraging and sheltering great crested newts. This species requires habitats such as grassland, scrub, woodland and hedgerows for dispersal and hibernation. Further hibernation features include buried rubble and logs, or mammal burrows.

Desk Study Information

- 2.5.32 TVERC returned two records of common frog *Rana temporaria*, one approximately 600m north from 2011 and another approximately 1km northwest in 2009. No other amphibian records were returned within the desk study. No Natural England mitigation licences relating to great crested newts were identified within 2km of the Site.

¹⁰ Oldham, R.S., Keeble L., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155.



Field Survey Results

- 2.5.33 There were no waterbodies on or within 250m of Site, with the nearest one identified being a pond approximately 950m to the southwest. There was little in the way of terrestrial habitat available within the Site, with the ornamental shrubs and discrete area of regularly disturbed rough grass offering minimal, isolated terrestrial habitat.

Evaluation

- 2.5.34 Given the above findings, it is considered highly unlikely that any amphibians, particularly great crested newt, would be present within the Site or impacted by the development and will not be considered further within this assessment.

Widespread Reptiles

Methods

- 2.5.35 Features on site were assessed for their potential to provide suitable habitats for use by reptile species. These include rough, tussocky grassland, scrub, disturbed land or refugia such as wood piles, rubble or compost heaps. Where present, suitable existing refugia were inspected for sheltering reptiles, and the ground was scanned whilst walking to look for basking species.

Desk Study Information

- 2.5.36 No records of any reptiles were returned within the desk study.

Field Survey Results

- 2.5.37 No signs of reptiles were noted within the survey, and much of the Site itself was considered unsuitable for reptiles due to the abundance of hardstanding, although the rough grassland and scrub to the south of the Site had the potential to support low numbers of widespread reptiles, such as slow-worms *Anguis fragilis*.

Evaluation

- 2.5.38 It is unlikely that any reptiles will be present on Site given the habitats present and the lack of nearby records so they will not be considered further within this assessment.

Invertebrates

Methods

- 2.5.39 Any notable invertebrates identified during the survey were recorded. The habitat was also assessed for its suitability for notable invertebrates, including the presence of specific species known to be foodplants or larval plants or habitats which may be favoured by invertebrates (such as bare ground, deadwood or grass tussocks). The habitat structure was also considered, such as mosaics, brownfield or unmanaged areas.

Field Survey Results

- 2.5.40 No invertebrates were noted incidentally within the survey and the Site possessed limited habitat for invertebrates, with all grass on Site being mown regularly and kept short. The trees and ornamental shrubs within the Site boundary, rough grassland, and trees could provide some areas suitable for common and widespread invertebrates, however.

Evaluation

- 2.5.41 Invertebrates are considered to be of **Site** level importance.

2.6 Summary of Ecological Importance

- 2.6.1 Table 3 gives all the identified ecological features on Site and their individual assessment of importance. Those coloured green are considered to be Important Ecological Features and will form the basis of the Assessment of Effects in Section 3. Those coloured yellow will be included on the basis of their specific legal protection or applicable planning policies.



Table 3: Ecological Importance

Feature	Importance
Designated Sites	
Local Wildlife Sites	Local
Habitats	
Ornamental shrub	Site
Hardstanding	Negligible
Trees	Site
Buildings	Site
Species	
Bats	Negligible
Widespread Amphibians and Reptiles	Site, if present
Birds	Site
Invertebrates	Site



3 ASSESSMENT OF EFFECTS

3.1 Methodology

- 3.1.1 Continuing from the valuation of Important Ecological Features (IEFs), this section lists each IEF in turn together with a characterisation of any potential impacts upon them likely to arise from the proposals. This takes into consideration any measures inherent to the designed scheme which seek to avoid such impacts altogether. Next, any agreed mitigation measures chosen to reduce likely impacts are then set out, along with the mechanism(s) through which these would be secured.
- 3.1.2 Residual effects, being those effects that would likely still arise despite any avoidance measures or agreed mitigation efforts, are subsequently discussed. Residual effects are determined to be either significant or not significant and any significant residual effects are given a geographical scale at which they might be felt. This assessment methodology is in accordance with that set out in the CIEEM Guidelines for Ecological Impact Assessment, 2018.
- 3.1.3 Where residual effects are identified compensatory measures may be proposed to make up for the loss or permanent damage to an IEF, as far as possible. Monitoring or management schemes which may be necessary to ensure the long-term achievement of all intended mitigation and compensation are discussed.
- 3.1.4 Where potential for cumulative impacts upon IEFs in association with other proposed or ongoing local development are identified these are described as appropriate for the affected IEF. The Zone of Influence for each IEF, together with their level of ecological importance will be of relevance when considering the scope of a cumulative impact assessment.
- 3.1.5 Ecological enhancement measures that will be incorporated into the development are given in line with the National Planning Policy Framework.

3.2 Summary of Development Proposals

- 3.2.1 The proposed development will involve the demolition of building B1, as well result in the loss of existing areas of vegetation, including areas of ornamental shrub planting to north and east of Site, amenity grassland borders and approx. 0.3ha of rough grassland to the south of B1.
- 3.2.2 Plans include the construction of seven new warehouse units, which will be constructed in two linear phases and will occupy the majority of the Site. The northernmost warehouse group will cover approx. 0.52ha and the southernmost warehouse group will cover 0.50ha. There will also be additional hardstanding car parking areas at the northern and southern entrances and in between the new warehouses, as well as several lorry loading bays and associated access and turning areas.
- 3.2.3 New areas of soft landscaping are recommended, including native, species-rich hedgerows and appropriate grass and wildflower seeding. Six trees will be retained within the development proposals, and approximately 26 new trees planted around the Site.

3.3 Designated Sites

Potential Impacts

- 3.3.1 The proposed development is relatively small-scale in the context of the local landscape and will be situated on land previously occupied by hardstanding and buildings, with minimal habitat diversity. It is therefore considered unlikely that the proposed development will have any significant impacts, either directly or indirectly, on the sites designated in the desk study.

Residual Effects

- 3.3.2 It is expected that there will be no residual effects on any of the designated sites identified within the desk study.

3.4 Habitats

- 3.4.1 The habitats within the Site were noted to be of lower (Site level or below) conservation importance. Losses are restricted to rough grassland, individual small trees, buildings, and discrete areas of ornamental shrub and amenity grassland.



- 3.4.2 Soft landscaping proposals comprise the creation of new species-rich and native planting around the site periphery, including hedgerows and shrubs, planting of locally appropriate ornamental trees, and wildflower seeding of grassland areas.
- 3.4.3 A Landscape and Environmental Management Plan (LEMP) will be prepared for the operational Site that will cover how retained habitats and newly planted areas will be managed so as to maximise their biodiversity value and achieve the objectives of ecological mitigation and compensation. The LEMP will also set out any measures necessary to ensure protected species are appropriately accommodated within the operational Site as well as ongoing monitoring of proposed ecological enhancements.

3.5 Protected Species and Species of Conservation Concern

Bats

- 3.5.1 B1 was assessed as offering Low roosting potential for small numbers of crevice roosting bats, however, no evidence of use by bats was found during the surveys, and the dusk emergence survey confirmed that the Site was generally unused by bats, likely due to high levels of night-time lighting. The Site itself offered little in the way of habitat that may support foraging and was subject to high levels of artificial nighttime lighting due to security lights around the building.

Potential Impacts

- 3.5.2 Although unlikely, the demolition of building B1 may result in the loss of potential roosting features, which may be used where artificial lighting around the Site is not in use.

Mitigation, Compensation, Enhancement and Monitoring

- 3.5.3 No roosting bats were recorded during night-time emergence surveys. However, as a precaution, a proportionate mitigation strategy is proposed. This will comprise the demolition of the building during winter between November to February (inclusive) due to the negligible hibernation potential of the structure. If this is not possible, it is recommended that a tool-box talk be delivered to contractors by an appropriately licensed ecologist, which will include details of the bat species that could use the structure, bat legislation, where bats may be found within the building, how to undertake the works to minimise risks to bats, and what to do in the highly unlikely event that a bat is found. The ecologist will then identify potential areas within the roof that may require further inspection, such as the areas of flashing along the gable ends of the building. Provided no evidence of bat activity is found (which is considered likely) demolition of the building can then proceed.
- 3.5.4 In the highly unlikely event that evidence of bats is found, demolition would need to occur under a European protected Species mitigation licence.
- 3.5.5 In order to mitigate the loss of potential roosting features, four bat boxes will be installed within the fabric of the new buildings or on external walls in order to provide opportunities for crevice-dwelling bats. These may include the Green & Blue Bat Block or Schwegler 1WQ Summer & Winter Bat Roost. Designs of woodstone or woodcrete construction will be used for proven longevity. Suggested positions for these and monitoring requirements will be outlined within the LEMP.
- 3.5.6 It is recommended that any proposed external lighting within the Site is designed to avoid spill or glare into surrounding habitats, as well as any newly planted hedgerows. As the Site may be operational at any time of day and throughout the year, night-time lighting may be necessary. While it is unlikely that large numbers, or particularly rare species are present within the vicinity, the functioning of the areas surrounding the Site as commuting corridors and foraging habitats for nocturnal wildlife should be adequately considered under local and national policy. The eventual lighting scheme will adhere to the following principles, in line with best practice guidance issued by the Bat Conservation Trust and the Institution of Lighting Professionals¹¹:
- The design must use only the minimum number of lights required;

¹¹ Bat Conservation Trust and Institution of Lighting Professionals (2018). Bats and the Built Environment Series. Guidance Note 08/18: Bats and Artificial Lighting in the UK.



- Lighting should only be active at time when it is actually needed, for example the safe movement of pedestrians and vehicles around an outdoor workspace in the hours of darkness. As the facility is to be operational at all times of day, consideration as to how this should be achieved will be necessary.
- Security systems should be based around infrared technology as a preference. Alternatively, security lighting can be activated by motion-sensitive equipment set to short (<30seconds) timers;
- Lights are to be fitted with UV filters or lack UV elements when manufactured to lower the range of wildlife species affected by lighting;
- Warm white (>3000K) LED lamps, which reduce blue light pollution, must be used where possible;
- Bollard lights, which retain darkness above and can be triggered by human movement installed with a timer, should be considered;
- A baffle, shield or hood must be used to avoid illuminating at a wider angle to reduce light spill beyond target areas;
- No upward lighting will be used. All luminaires should have no upward light output.

Residual Effects

- 3.5.7 If the above mitigation measures are adhered to, and in combination with appropriate soft landscaping, it is anticipated that there will be a positive residual impact on bats.

Birds

- 3.5.8 Initial site survey and incidental findings identified evidence of birds using B1 and some vegetation within the Site for nesting. The desk study also returned a number of BTO red and amber listed species within the wider landscape.

Potential Impacts

- 3.5.9 The removal of the northern and eastern ornamental shrub as well as building B1 itself, as will the removal of 13 individual small trees will result in a small loss of available nesting habitat for birds. This will also amount to a small reduction in available foraging habitat on Site as well. All works to trees and ornamental shrubs on Site, as well as the demolition of building B1, have the potential to disturb nesting birds and destroy active nests if carried out within the nesting bird season.

Mitigation, Compensation, Enhancement and Monitoring

- 3.5.10 Any felling of trees, as well as removal of the area of ornamental shrub habitat, should be undertaken outside of the nesting bird season (March to August inclusive). This will avoid the potential for nesting birds being adversely affected by clearance works. If clearance works are undertaken within the months of March to August, this must be preceded by a check for nesting birds by a suitably qualified ecologist no more than 48 hours prior to works being undertaken.
- 3.5.11 Similarly, if building B1 is due to be demolished within the bird nesting season, this should be preceded by a nesting bird check no more than 48 hours prior to demolition.
- 3.5.12 Soft landscaping includes new native hedgerow, tree and shrub planting, as well as native grass and flower mixes being sown where feasible within the Site boundary. These habitats will provide a range of shelter and foraging opportunities for widespread insectivorous and seed-eating bird species.
- 3.5.13 A number of artificial bird nesting boxes will be incorporated into the proposed development to in order to enhance the Site for species such as house sparrow. At least four nest boxes will be incorporated into the new proposed buildings. These must be installed at a height of no less than 2m above ground level. Recommended boxes include woodstone or woodcrete nest boxes, which are suitable for a number of small, common bird species. A little owl Apex Nest Box by CJ Wildlife should also be installed within a retained mature tree to benefit this species, which are known to be present in the area. This should be installed within a mature isolated tree at a height of 3-5m. Suggested positions for these features and monitoring requirements will be outlined within the LEMP.



Residual Effects

- 3.5.14 Should the above mitigation measures be adhered to, it is not expected that the proposed development will result in any adverse effects on birds using the habitats and buildings on Site.

3.6 Biodiversity Impact Assessment

- 3.6.1 In line with NPPF planning guidance and the Environment Act, a Biodiversity Impact Assessment (BIA) score has been calculated using the statutory Biodiversity Metric. The metric has been used to calculate the biodiversity values of area-based habitat Units (HU) and Hedgerow Units (HeU) within the application Site, both before and after the proposed development, to determine whether the development is likely to result in a net loss or gain for biodiversity.

Baseline Conditions

- 3.6.2 There are no designated sites for nature conservation present within the Site, and the location of the Site is not considered to be strategically significant for county-level biodiversity strategy.
- 3.6.3 No irreplaceable habitats fall within the scheme.

Habitat Units

Urban

- 3.6.4 The Site predominantly comprised Urban habitats in the form of Developed Land; Sealed Surface, including the existing buildings and access roads, discrete areas of Introduced Shrub in the form of ornamental planting, and Urban Trees.
- 3.6.5 Condition assessments for Developed Land; Sealed Surface and Introduced Shrub are not applicable.
- 3.6.6 Nineteen small urban trees were present within the boundary features of the plot. These were assessed as being of Poor (3no.) or Moderate (16no.) condition as few were ornamental species oversailing <20% vegetation, and none were mature, nor offered a range of associated ecological niches.

Grassland

- 3.6.7 An area of low diversity grassland was present in the south of the Site, which had scattered bramble scrub throughout, was classified as Modified Grassland (MG) in Moderate Condition. A detailed botanical survey and condition assessment of this area could not be undertaken due to a lack of access; however, an indicative list of species and indicative condition assessment was recorded from the fence line and is considered to be appropriate for the following reasons:
- the sward height being generally unvaried as a result of the dominating ruderal species, including teasel, spear thistle and curled dock,
 - the evident and dense cover of bramble scrub (being >20% of the total grassland area), and
 - the disturbed nature of the grassland from industrial vehicular access (resulting in >5% physical damage).
- 3.6.8 A total of four condition assessment criteria were passed, including Essential Criterion A.

Hedgerow Units

- 3.6.9 A single non-native hedgerow was present along the eastern site boundary, totalling 0.095km. The condition assessment for this type of linear feature is fixed at Poor and total Hedgerow Units (HeU) present on Site are therefore 0.10. This hedgerow will be lost to facilitate the proposed development.

River Units

- 3.6.10 No watercourses fall within the Zone of Influence of the scheme, and so River Units (RU) have not been included within the calculations.

Proposed Design

- 3.6.11 The proposed habitat types within the Site and their associated targeted condition assessments are described below. The proposed habitats plan is based on the proposed design and Planting Plan for the Site.



- 3.6.12 More details of the habitats to be created and / or enhanced, their delivery and management in the long-term are provided within the LEMP for the Site¹².
- 3.6.13 It has been necessary to make assumptions about the condition and distinctiveness of created habitats to complete the Metric, which is based on a realistic and achievable scenario in the Metric.
- 3.6.14 Other biodiversity enhancements (such as habitat boxes) are not included within the assessment, but are described within the LEMP.

Habitat Units

Habitat Loss

- 3.6.15 It has been assumed that the majority of baseline habitats, with the exception of existing developed land, will be lost within the proposals and new habitats created. The extent of each habitat type to be lost as a result of the proposals is summarised in Table 4.

Table 4: Summary of each habitat type to be lost as a result of the proposed development

Habitat Type	Baseline Area (Ha)	Baseline Habitat Units (HU)	Area to be Lost (ha)	Habitat Units Lost (HU)
Introduced Shrub	0.1174	0.23	0.1174	0.23
Urban Tree (Poor Condition)	0.0122	0.05	2 Trees - 0.0082	0.03
Urban Tree (Mod. Condition)	0.0651	0.52	11 Trees - 0.0448	0.36
Grassland – Modified Grassland	0.3377	1.35	0.3377	1.35
Urban – Developed Land; Sealed Surface	1.6928	0.00	0.00	0.00

Habitat Retention

- 3.6.16 The loss of existing urban trees and peripheral habitat will be avoided wherever possible. Protective fencing will be installed adjacent to all retained habitat and take into account Root Protection Areas (RPAs) of the retained trees in line with BS 5837: 2012.

Habitat Creation

- 3.6.17 The new units and access within the Site will result in the total delivery of 1.9498ha of developed land; sealed surface. No management prescriptions relating to this habitat type are required post-construction, as a default condition (N/A) is applied within the Metric. Given that this habitat type is of very low distinctiveness and offers no intrinsic value for biodiversity, no additional habitat units will result from the creation of developed land; sealed surface.
- 3.6.18 An area of 0.0143ha of new ornamental planting will be created as part of the proposed scheme, which will deliver 0.03 HU. This habitat will be managed for its amenity value in the long term and a default condition (N/A) is applied within the metric.
- 3.6.19 Grassland within the northern boundary of the Site will be seeded with a suitable, diverse grassland mix to deliver Other Neutral Grassland (ONG) habitat. This grassland will be managed to promote species-richness and achieve at least Moderate condition. The creation of approximately 0.0604ha of ONG within the Site will provide 0.4HU post-development.
- 3.6.20 In order to achieve the target condition, the proposed ONG must satisfy at least three of six condition assessment criteria, including the essential criterion (Appendix C3). Management measures will include limiting coverage of bracken and scrub and ensuring the absence of invasive species and physical damage.
- 3.6.21 Discrete areas of amenity lawn (MG) are proposed, which will be managed to achieve Good condition. The creation of 0.0863ha MG in Good condition will result in the delivery of 0.4HU on Site.

¹² Windrush Industrial Park, Plot B, Landscape & Ecological Management Plan. Clarkson & Woods (Jan, 2024)



- 3.6.22 Mixed Scrub planting is proposed along the eastern Site boundary. The scrub will be planted with a range of native, woody species and managed to achieve at least Moderate habitat condition, to satisfy at least three of five assessment criteria. The mixed scrub habitat will occupy 0.0368ha and will deliver 0.25HU within the scheme.
- 3.6.23 It is proposed that approximately 26 small Urban Trees will be planted within around the Site. The trees will be managed to achieve 'Moderate' condition and must achieve at least three of six condition assessment criteria. All newly planted trees will be ideally native species and certainly of local provenance, and will be subject to management only when they pose a health and safety hazard to enable creation of deadwood and ecological niches where possible.
- 3.6.24 Individual trees will occupy a total area of ~0.1059ha and will deliver 0.32HU within the scheme. The total area occupied by Urban Trees within the Site was calculated using the Tree Helper tool within the Metric. All trees were entered as small (for non-mature) trees. Within the Metric, this area is not counted towards total Site area, but is additional land. The areas beneath the trees were recorded as the relevant habitat types (i.e. Modified Grassland or Mixed Scrub).

Hedgerow Units

Hedgerow Loss

- 3.6.25 The existing ornamental hedgerow will be lost to facilitate the proposed development.

Hedgerow Creation

- 3.6.26 New hedgerow planting is proposed around the Site, all of which will fit the Species-rich Native Hedgerow type. The hedgerows will be planted with a range of woody species of local provenance, including flowering and fruiting species. The total length of native hedgerow habitat to be created is 0.279km, which will deliver 2.15HeU within the scheme. All newly created hedgerows will be managed to achieve at least Moderate condition; management will promote dense growth, and undesirable species removed from adjacent grassland.

BNG Metric

- 3.6.27 The proposed development will result in a net loss of Habitat Units, and a net gain of Hedgerow Units, as shown in the headline results below. Recommendations have been made to ensure that the scheme achieves a net gain for biodiversity, including the enhancement of existing habitat or creation of new habitat within the wider site, or through a locally appropriate offset payment scheme, such as that delivered by Trust for Oxfordshire's Environment (TOE), to be agreed with the LPA.
- 3.6.28 The proposals will result in a total net change of **-0.57HU**, representing a loss of **26.45%**. The majority of HU will be delivered by the creation of grassland habitat around the Site, and planting of urban trees. Although the proposed changes fail to achieve the target net gain, it is considered that the proposals have maximised the potential for achieving BNG credits given the nature of the Site as an industrial park. The soft landscaping scheme maintains a vegetated network around the Site, which will support any protected species likely to be present within the Site in its current condition.
- 3.6.29 The proposals will result in a total net change of **+2.05 HeU**, representing an increase of **2161.02%**. The net gain in HeU will be provided as a result of new native and species-rich hedgerow creation. Delivery of HeU within the Site satisfies trading rules for these linear features within the Metric.



4 CONCLUSIONS

- 4.1.1 The proposed development will result in adverse impacts upon few ecological features ranging from **Local to Site** importance. Avoidance and mitigation measures have been proposed to ensure that these adverse impacts are reduced as far as possible.
- 4.1.2 These include the demolition of the building B1 ideally undertaken over the winter during the bat hibernation season, as the building was found to offer negligible bat hibernation potential. All ornamental shrub vegetation and trees should be removed or felled outside of the nesting bird season or, where this is not possible due to construction timelines, vegetation should be removed within 48 hours of a vegetation check by a suitably qualified ecologist. All retained trees will be protected with appropriate fencing throughout the construction phase.
- 4.1.3 A number of ecological enhancements have been proposed for the Site including the inclusion of both bat roosting boxes and bird nesting boxes.
- 4.1.4 A LEMP has been prepared, which outlines how newly planted areas of vegetation and hedgerow will be managed in order to maximise their biodiversity value. The LEMP sets out the measures necessary in order to ensure that protected species are appropriately accommodated within the Site during its operational lifetime, as well as setting out monitoring requirements for ecological enhancements and new areas of planting.
- 4.1.5 The proposed development will result in a net loss for biodiversity, despite the delivery of an appropriate soft landscaping scheme, which includes the planting of native hedgerows, trees and shrubs around the Site, fruiting ornamental trees, and wildflower grassland. The scheme will need to seek to achieve a net gain either within the wider industrial park, or through an off-site agreement to remain in line with current legislation and local planning policy EH3: Biodiversity and Geodiversity.



APPENDIX A: WILDLIFE LEGISLATION & SPECIES INFORMATION

BATS

All 17 species of bat known to breed in England and Wales, and their roost sites, are protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations'. This makes it an offence to deliberately kill or injure a bat, or to deliberately disturb a bat such that its ability to hibernate, breed or rear young, or such that the species' distribution, were significantly affected. It is also an offence to damage or destroy any breeding site or resting place. Intentional or reckless disturbance of bats in their resting places, and damage to or obstruction of resting places are also offences under the Wildlife and Countryside Act 1981 (as amended). Under UK law a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". As bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time. Penalties for offences against bats or their roosts include fines of up to £5,000 and/or up to six months in prison.

As a result, development works which are likely to involve the loss of or alteration to roost sites, or which could result in killing of or injury to bats, need to take place under licence. Works which could disturb bats may also be licensable, though this needs to be assessed on a case by case basis, as bats' sensitivity to disturbance varies depending on normal background levels, and the definition of disturbance offences under the Habitats Regulations is complex. In practice this means that works involving modification or loss of roosts (typically in buildings, trees or underground sites) or significant disturbance to bats in roosts are likely to be licensable.

Licences can be obtained from Natural England or the Welsh Government to permit works that would otherwise be illegal, provided it can be demonstrated that the proposed works are needed to protect public health or safety, or for other reasons of overriding public interest including social and economic reasons. It is also necessary to demonstrate that there is no satisfactory alternative to the proposed works, and that the conservation status of bats in the area will be maintained. Appropriate mitigation and post-construction monitoring are therefore a requirement of all licences.

BIRDS

All British birds, their nests and eggs (with certain exceptions) are protected under the Wildlife & Countryside Act 1981 (as amended) which makes it an offence to: intentionally kill, injure or take a wild bird; intentionally take, damage or destroy nests which are in use or being built; intentionally take or destroy birds' eggs; or possess live or dead wild birds or eggs. A number of species receive additional protection through inclusion on Schedule 1 of the Wildlife and Countryside Act; for these it is also an offence to intentionally or recklessly disturb birds while nest building, or at a nest containing eggs or young, or to disturb the dependant young of such a bird. Penalties for offences against bird species include fines of up to £5,000 and/or up to six months in prison.

General licences for control of some bird species are issued by Natural England and Natural Resources Wales in order to prevent damage or disease, or to preserve public health or public safety, but it is not possible to obtain a licence for control of birds or removal of eggs/nests for development purposes. Consequently if nesting birds are present on a development site when works are programmed to start it is usually necessary to delay works, at least in the areas supporting nests, until any chicks have fledged and left the nest. It is usually possible, once chicks have hatched, for an experienced ecologist to predict approximately when they are likely to fledge, in order to inform programming of works on site.

PLANNING POLICY IN RELATION TO BIODIVERSITY

The National Planning Policy Framework (NPPF), was published in March 2012 and revised in July 2021. Additional guidance can be found online at <http://planningguidance.planningportal.gov.uk/blog/guidance/>. The NPPF simplifies and collates a number of previous planning documents and outlines the government's objective towards biodiversity.

The NPPF identifies ways in which the planning system should contribute to and enhance the natural and local environment (Paragraph 174), including:

- (a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- (b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- (e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- (f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. protecting and enhancing valued landscapes, geological conservation interests and soils;

It also emphasises the importance of conserving biodiversity and areas covered by landscape designations (Paragraph 176):



Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

When determining planning applications, the NPPF states that local planning authorities should aim to conserve and enhance biodiversity (Paragraph 175) by applying principles including:

- (a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- (b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- (c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶ and a suitable compensation strategy exists; and
- (d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate..

The following should be given the same protection as habitats sites:

- (a) potential Special Protection Areas and possible Special Areas of Conservation;
- (b) listed or proposed Ramsar sites⁷; and
- (c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

There is a general presumption in favour of sustainable development within the NPPF. It is noted in Paragraph 182 that this presumption does not apply where the plan or project is likely to have a significant effect on a habitat site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

The Natural Environment and Rural Communities Act (2006) states that a public authority must, "in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat". DEFRA issued further guidance on implementation of this act in the document; Guidance for Local Authorities on Implementing the Biodiversity Duty (May 2007), which notes that "Conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them".

The Environment Act (2021) was passed into law in November 2021. This Act is comprised of 8 Parts and sets out targets for conservation and environmental betterment along with a system for their implementation, including the creation of a new Office for Environmental Protection (OEP). Of particular pertinence to Ecology is Part 6 – Nature and biodiversity, which includes a mandatory requirement for developments to deliver a minimum 10% biodiversity net gain (as quantified through an approved metric such as the Defra 3.0 metric). Such gains must be secured for a minimum of 30 years post-completion of development.

For most schemes, Net Gain shall be secured through an amendment to the Town and Country Planning Act, which is likely to be passed into law in 2023. Nationally Significant Infrastructure Projects (NSIPs) will also be subject to this requirement, but this will be secured through the Planning Act 2008, which means that for NSIPs the mandatory net gain requirement will not be in place until 2025. Certain small schemes are exempt from the requirement for delivering net gain.

It is important to note that in the meantime, Local Planning Authorities across the country have already adopted their own, differing policies regarding net gain. Several stipulate no net loss as a minimum, whilst others have 10% or even 20% requirements.

ECOLOGICAL ENHANCEMENTS

The Natural Environment and Rural Communities Act (2006) states that a public authority must, "in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat". DEFRA issued further guidance on implementation of this act in the document; Guidance for Local Authorities on Implementing the Biodiversity Duty (May 2007), which notes that "Conserving biodiversity can include restoring or enhancing a population or habitat".

In England, the National Planning Policy Framework (NPPF), issued in July 2018, states that the planning system should contribute to "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;. It also states that "opportunities to incorporate biodiversity in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity".



UK BIODIVERSITY ACTION PLANS

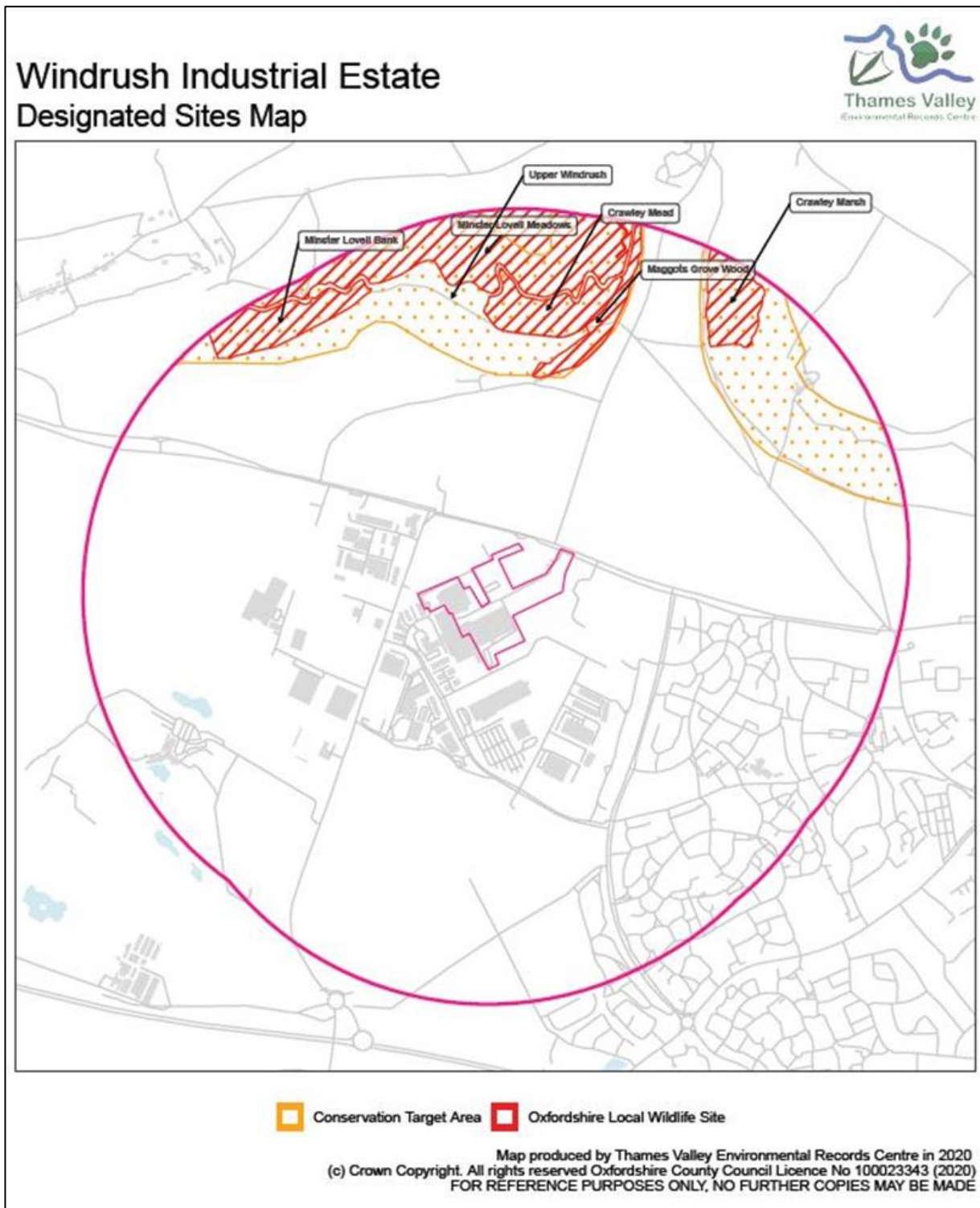
The UK Biodiversity Action Plan (UK BAP) 2011 is a policy first published in 1994 to protect biodiversity and stems from the 1992 Rio Biodiversity Earth Summit. The policy is continuously revised to combine new and existing conservation initiatives to conserve and enhance species and habitats, promote public awareness and contribute to international conservation efforts. Each plan details the status, threats and unique conservation strategies for the species or habitat concerned, to encourage spread and promote population numbers.

Species or habitats identified as priorities under the UK Biodiversity Action Plan receive some status in the planning process through their identification as Species/Habitats of Principal Importance in England and Wales, under the Natural Environment and Rural Communities (NERC) Act 2006 (as amended).

Current planning guidance in England, the National Planning Policy Framework, does not specifically refer to Species or Habitats of Principal Importance, though it includes guidance for conservation of biodiversity in general. Supplementary guidance is available online at <http://planningguidance.planningportal.gov.uk/blog/guidance/> and this guidance indicates that it is 'useful to consider' the potential effects of a development on the habitats or species on the Natural Environment and Rural Communities Act 2006 section 41 list.



APPENDIX B: NON-STATUTORY DESIGNATED SITES WITHIN 1 KM OF WINDRUSH INDUSTRIAL ESTATE





CLARKSON & WOODS

Clarkson and Woods Ltd.

Overbrook Business Centre,
Poolbridge Road, Blackford,
Somerset BS28 4PA

t: 01934 712500

e: info@clarksonwoods.co.uk

www.clarksonwoods.co.uk