

Preliminary Ecological Assessment

Cheriton Parc, Folkstone, Kent.

Report for Mulberry Tree Holdings

Date June 2022

Our Ref: KECT18 8AN



Quality Assurance

Author	Lucy Price BSc, MSc
Reviewed	Donna Popplewell BSc, ACIEEM
Date	June 2022
Version	Final

About Us

Bakerwell Limited has two offices, led by directors Fiona Baker and Donna Popplewell. The Directors have collectively 22 years' experience in the ecological consultancy industry, hold relevant degrees, are qualified botanists, and are trained in the use of biodiversity metrics to calculate no net loss/gain.

All staff are members, or training to be members, of the professional body for the environmental industry, the Chartered Institute of Ecology and Environmental Management (CIEEM) and hold Natural England European protected species licences for great crested newts, bats and dormice. Bakerwell Limited has SMAS Worksafe Health and Safety Accreditation; all staff hold relevant CSCS cards.

Bakerwell Limited is a consultancy specialising in ecological planning advice and surveys. Bakerwell also work in collaboration with trusted associates to provide Landscape Architecture, Arboriculture and Energy assessments.

Contents

1	Introduction.....	4
2	Aims and Objectives	5
3	Methodology	5
4	Limitations	9
5	Results and Discussion.....	10
6	Planning Context	17
7	Mitigation Measures	21
8	Enhancement Recommendations	24
9	Conclusion	26
10	References.....	27
11	Appendices	29

Figures:

Figure 1: Phase 1 Habitat Survey

Figure 2: Waterbodies Plan

Figure 3: Mitigation and Enhancement Measures

Appendices:

Appendix 1: Level of Importance

Appendix 2: Full List of Plant species

Appendix 3: Site Photographs

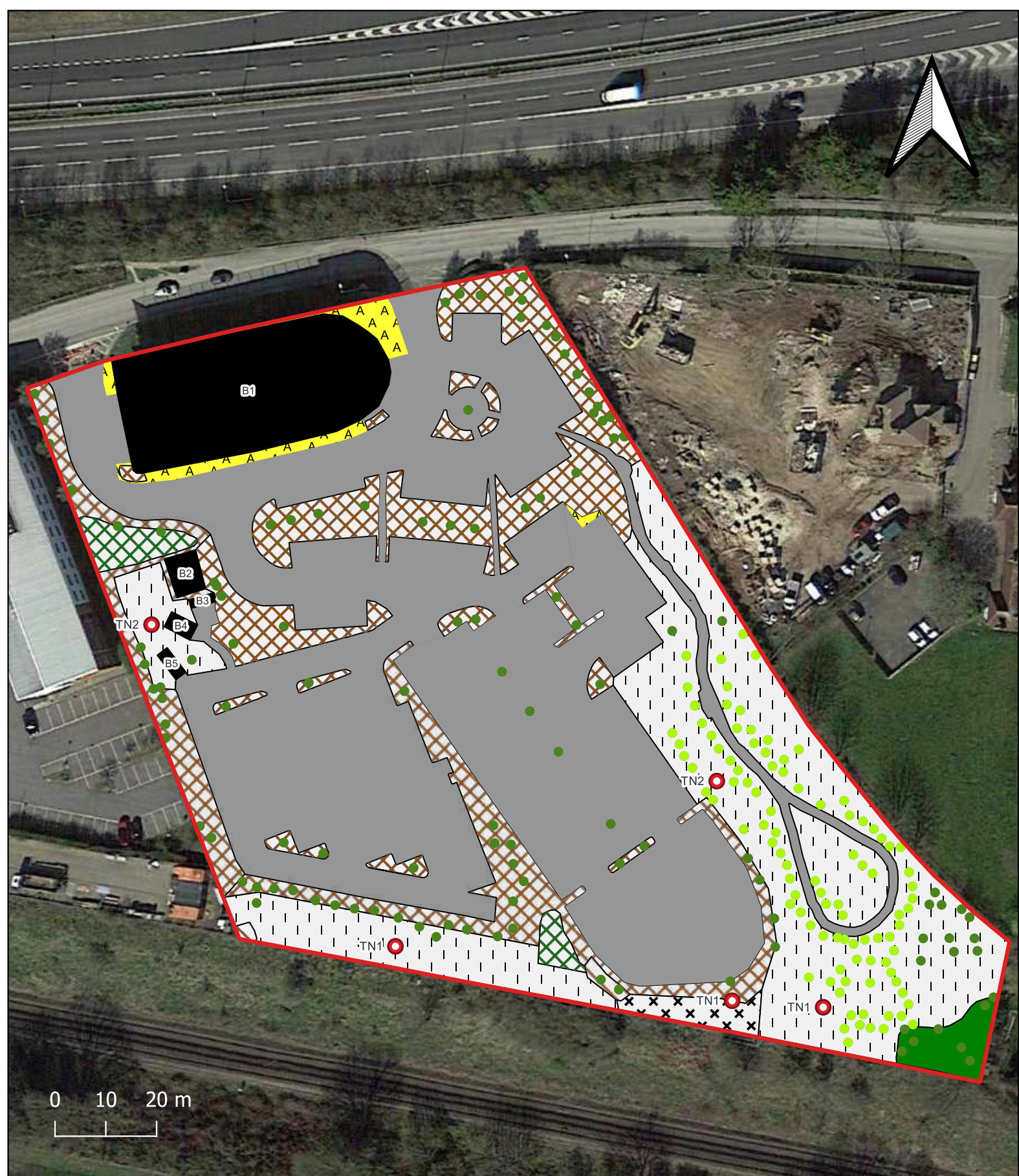


Figure 1: Phase 1 Habitat

Site: Cheriton Parc
 Date: April 2022
 Job: KECT18 8AN
 Author/Reviewer: LP/DP



Key:

- Site Boundary
- A1.1.1 - Broadleaved woodland
- A2.1 - Dense Scrub
- B4 - Improved grassland
- C3.1 - Tall Ruderal
- J1.2 - Amenity Grassland
- J1.3 - Ephemeral/Short Perennial
- J1.4 - Introduced shrub
- J2.4 - Fence
- J3.6 - Buildings
- J5 - Hardstanding
- A3 - Scattered Trees:
- Recently Planted Trees
- Target Note:

TN 1 - Suitable Reptile Habitat
 TN 2 - Orchid Locations

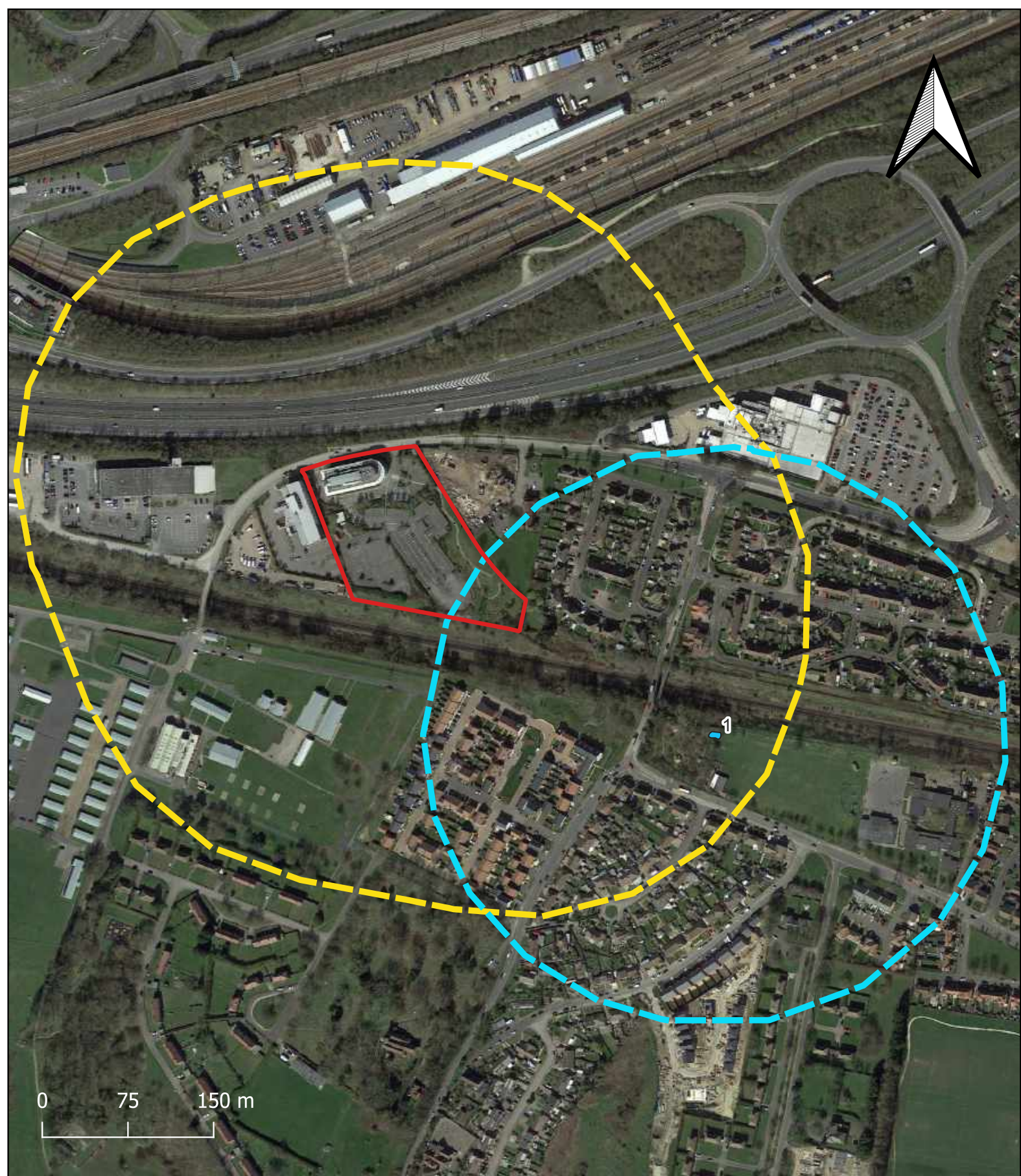


Figure 2: Waterbodies Within 250m

Site: Cheriton Parc
 Date: March 2022
 Job: KECT18 8AN
 Author/Reviewer: LP/DP



Key:

- Site Boundary
- 250m Site Buffer
- 250m Pond Buffer
- Waterbodies:

Pond	Distance m
1	188



1. Bat and Bird Bricks

Five Bird Bricks - To be incorporated within built houses. installed 3-4m above the ground level. Oriented on a northeast aspect.

Five Bat Bricks - To be incorporated within built houses or separate. Installed 5-7m above ground level. Oriented on a southwest to southeast aspect and away from artificial light.

2. Orchid Translocation

The orchids located on site will be translocated to a suitable habitat within the area of the native species rich wildflower meadow. The exact locations are to be advised by a suitable qualified ecologist on site.

3. Recently Planted Native Trees

The recently planted native trees on site will be translocated and where possible retained on site, the majority of them will be used within area of mixed scrub along the southern boundary.

Figure 3 Mitigation and Enhancement

Site: Cheriton Parc
 Date: June 2022
 Job: KECT18 8AN
 Author/Reviewer: LP/RD



Key:

- Site Boundary
- 🏠 Bat Brick (Building/Trees)
- 🏠 Bird Brick (Building)
- Possible Orchid Receptor
- New Boundary Feature Including Mixed Native Scrub
- Native Species Rich Wildflower Meadow
- Flowering Lawn
- Retained Broadleaved Woodland

1 Introduction

- 1.1 Bakerwell Limited were commissioned by Oliver Davis Homes, the applicant, to undertake a Preliminary Ecological Assessment (PEA) of Land at the following address: Cheriton Parc, Cheriton High St, Folkestone CT18 8AN (henceforth referred to as the site). This comprises a desk study, a Phase 1 Habitat Survey, an assessment of the potential for the habitats on site to support protected species and a bat roost building and tree assessment.
- 1.2 The PEA identifies the broad habitat types on and in the vicinity of a given site. It aims to identify habitats, species or the potential for species that are protected by European and UK law, are nationally or locally rare or add biodiversity value. The report provides recommendations to ensure that the development is compliant with UK and EU legislation, that any impacts to protected species are mitigated, and biodiversity enhancements are incorporated into the development.
- 1.3 The proposed development site is located to the northwest of Cheriton. The central O.S. grid reference is: TR 18935 36911 The site is approximately 1.8ha and is located between the M20 motorway and Channel Tunnel trainline to the north and the Folkstone to Ashford trainline to the south with MOD practice ranges and residential units beyond. Further industrial units are positioned to the west and a new housing development to the east.
- 1.4 The proposed development comprises of 75 new residential properties and associated parking. The new properties are a mixture of new build and the conversion of an existing office building. The development will also include the creation of new open space and landscape planting.
- 1.5 This report has been compiled to follow the British Standard 42020 Code of Practice for Planning and Development and the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal (2018) and Guidelines for Ecological Report Writing (2017).
- 1.6 Recommendations within this report aim to demonstrate the approved development will conserve and enhance biodiversity in accordance with Chapter 15 of National Planning Policy, Section 174.

2 Aims and Objectives

- 2.1 The aim of this assessment is to undertake a desk and field-based ecological assessment of the proposed development site to identify; the habitats present, evidence and potential for the presence of protected species on or in the immediate vicinity of the red line boundary and any likely direct or indirect effects of the proposed development to the on-site and off-site habitats or potentially present protected species. The objectives of the surveys are to:
- Identify and categorise the broad habitats present on site.
 - Identify presence of, or the potential for, protected species.
 - Identify any impact to designated ecological sites.
 - Provide recommendations for protected species survey, if potential for presence exists.
 - Provide outline recommendations for biodiversity mitigation and enhancements.
 - To provide the above in the context of legislation, local planning policy and evaluation of any potential impacts.

3 Methodology

Desk Study

- 3.1 Desk studies are conducted to ascertain which habitats and species are or have been recorded on or within the surrounds of a proposed site. This information highlights areas of local ecological importance and provides an indication of which habitats and species may be expected to be in the vicinity. It also identifies statutory and non-statutory sites that are important for nature conservation within the locality and facilitates an assessment of the potential direct and/or indirect impacts a development may have on these areas.
- 3.2 An in-house online desk study was completed using data acquired from www.MAGIC.gov.uk interactive maps, managed by Natural England and accessed on 01st March 2022. The desk study identified statutory designated sites, impact risk zones of such sites and granted protected species mitigation licences. This information is used to assess the potential for direct or indirect impacts that may occur as a result of the approved development. The data sets are updated irregularly by Natural England and therefore may not provide complete and up-to-date records. For consistency, only records from observations within the last 10 years are discussed within this report. Searches were also carried out using Folkstone and Kent Council's website, and Google maps.

Phase 1 Habitat Survey

- 3.3 Bakerwell Limited undertook a Phase 1 Habitat Survey on 08th March 2022. The survey was carried out by Rhianna Dix, who identified habitats present, following the standard Phase 1 Habitat Survey methodology (JNCC, 2010). The site was surveyed on foot and existing habitats and land uses were recorded on an appropriately scaled map, see Figure 1. Any evidence of protected species or areas of ecological interest were plotted on the map as Target Notes. Potential for protected species, invasive species and any further survey requirements to clarify this, are discussed in the results section of this report.

Protected Species Surveys

Bat Roost Assessment Survey

Buildings

- 3.4 Rhianna Dix undertook an inspection of five buildings on site (B1-B5, Figure 1) including a large office building and four smaller storage units of different constructions described further in Section 5. The buildings were inspected on the 08th March 2022, to assess the potential for, or evidence of roosting bats.
- 3.5 An external assessment of the building was undertaken in full sunlight from ground level using binoculars and a high-powered torch where necessary to assess potential bat roosting suitability including: access points and/or roosting features, lifted roof materials such as tiles, flashing or felt and gaps in the building structure, for example under the eaves, in the soffits, roof apex and external beams and around doors and windows. Where present these features were recorded as Target notes on the Phase 1 plan (Figure 1).
- 3.6 A search for evidence of use by bats was also conducted; looking for individuals or dead animals, droppings, tiny scratches, urine staining, flies, smoothing of surfaces around access points, a bat distinctive smell and in warm weather any audible squeaking. The roof areas were then assigned a category of potential suitability as a bat roost as shown in Table 2.

Table 1: Potential Bat Roosting Features and Evidence

Potential Bat Roosting Features	Signs Indicating Possible Use by Bats
<p>In trees</p> <ul style="list-style-type: none"> Natural holes Woodpecker holes Cracks/splits in major limbs Loose bark Hollows/cavities Dense epicormic growth Bird and bat boxes 	<ul style="list-style-type: none"> Live, dead, or skeletons of, bats Feeding remains e.g. insect wings Tiny scratches around entry point Urine staining around entry point Bat droppings in or around entry point Audible squeaking at dusk or in warm weather Flies around entry point Distinctive smell of bats Smoothing of surfaces around cavity
<p>In buildings</p> <ul style="list-style-type: none"> Gaps around windows / doors Gaps between mortar / brickwork Gaps under cracked / broken / missing ridge tiles, roof tiles and hanging tiles Gaps under lead flashing and between roofing felt flaps Large roof void Gaps into soffits, barge boards, gable ends and under eaves 	<ul style="list-style-type: none"> Live, dead, or skeletons of, bats Bat droppings in the roof void (particularly below ridge beam and apex) Feeding remains e.g. insect wings Tiny scratches around entry point Urine staining around entry point Bat droppings in or around entry point Audible squeaking at dusk / warm weather Flies around entry point Distinctive smell of bats Smoothing of surfaces around cavity

Table 2: Categories for Bat Roosting Potential

Category	Criteria
Negligible Potential	No evidence, no suitable Potential Roost Features (PRFs)
Low Potential	No evidence of use, one or two features suitable for low numbers of bats, with very limited roosting potential. Limited connectivity to wider landscape with other bat habitats.
Moderate Potential	No evidence of use, several suitable features, but unlikely to support a roost type of high conservation status, connected to wider landscape with good foraging habitat.

Category	Criteria
High Potential	No evidence of use, but many suitable features for use by larger numbers of bats on a more regular basis and potentially for longer periods. Well connected to good foraging habitat and known roosts nearby.
Confirmed Roost	PRFs with evidence of use present, observation or previous records of bats confirmed to be roosting in the tree.

Trees

- 3.7 The trees on site and directly adjacent to site boundaries were assessed for their potential for bats, following the Bat Conservation Trust (BCT) Good Practice Guidelines 3rd edition (2016) survey methodology.
- 3.8 All trees within and immediately adjacent to the site boundary were assessed and natural holes, hollows and cavities (cracks and splits), loose bark, epicormic and ivy growth were investigated as potential bat roosting features. A search for evidence of use by bats was also conducted as above, see Table 1. Individual trees were then assigned a category as defined in Table 2.

Dormouse Survey

- 3.9 A visual assessment of habitats present on and immediately adjacent to the site was carried out by Rhianna Dix (accredited agent under Donna Popplewell NE Class Survey Licence no. 2015-18099-CLS-CLS/ WML-CL10a) on the 08th March 2022, for their suitability to support dormice *Muscardinus avellanarius*. Connectivity with suitable off-site habitats, features suitable for nest building, foraging, shelter and hibernation were considered. Dormouse nests and opened hazel nuts are distinctive and unlike those made by other small mammals.

Bird Survey

- 3.10 Habitats on site were assessed for their suitability to support nesting and foraging birds. Any birds or nests observed during the survey were recorded and will be discussed in Section 5.

Reptile Survey

- 3.11 The habitats on site were assessed for their potential to support reptiles. Features suitable for hibernation, basking, feeding and raising young are considered. Where these are present further survey to assess presence or likely absence will be required to inform a planning decision.

Ecological Impact

- 3.12 Ecological Impact Assessment (EclA) is most formally used to provide the ecological component of an Environmental Impact Assessment (EIA) required under EIA Regulations. The alternative use of assessing the impact of a proposal to ecology as used for the purposes of this report, is to demonstrate the approved development accords with relevant planning policy and legislation. This approach is recommended by BS42020: 2013.
- 3.13 The impact assessment identifies, quantifies and evaluates likely significant effects on habitats and species. The methodology used in this assessment broadly follows guidelines in CIEEM (2016). Ecological features are classified in terms of importance at a geographic scale (Appendix 1). Evaluation of impacts follows the mitigation hierarchy. This involves avoiding impacts, mitigating unavoidable impacts, compensation for remaining significant residual effects and seeking enhancements for biodiversity.

4 Limitations

- 4.1 The results of the survey can only indicate the presence (or potential for such presence) for fauna evident at the time of the survey. Due to the transient nature of fauna such as bats and their habitats, the results of this survey are considered to be valid for 18 months from completion of the survey (CIEEM, 2019), unless there is sufficient justification to show otherwise, in line with best practice guidance.
- 4.2 The age of survey data and mitigation considered acceptable by Natural England for the purpose of assessing whether to grant a European Protected Species Mitigation Licence (EPSML) is subject to change by Natural England at any time. Survey data may need to be updated within the survey season immediately prior to the EPSML application.
- 4.3 Assessments within this report are based on a site visit and layout provided (CHP-EDL-ZZ-XX-DR-L-2000 REV - Landscape Master Plan). Subsequent changes to the layout may result in a requirement to reassess the potential impacts of the development and the requirements for future survey, or avoidance, mitigation and enhancement measures.
- 4.4 The online portion of desk studies completed by Bakerwell acquires data from www.magic.gov.uk interactive maps, managed by Natural England. Data present is not updated consistently, therefore reference made to protected species licenses does not contain information later than 9th February 2022.
- 4.5 Vegetation surveys are generally limited during the winter months, with annual species not visible, however the results are sufficient for a Phase 1 level habitat assessment, giving information on dominant and common species and habitat structure

- 4.6 Findings and recommendations within this report are based on the professional opinion of qualified and experienced ecologists and do not constitute professional legal advice.

5 Results and Discussion

- 5.1 In this section, the results and subsequent implications of the surveys and assessments are discussed in context of the habitats and potential species present, and the potential impacts of the proposed development are discussed. Giving details of further survey required to inform an ecological assessment in support of a planning application. Local planning policy context is given in Section 6. Recommendations for enhancements are provided in Section 7.

Desk Study

- 5.2 The immediate surrounding habitats of the site are boundary fences, developed areas immediately to the east and west and transport infrastructure to the north and south of the site. Section 41 habitats, open mosaic and deciduous woodland are found within 1km of the site. Designated sites and their distance from the site are summarised in Table 3.

Statutory Designated Sites

- 5.3 The following statutory designated sites are located within 2km of the site boundary: Folkestone to Etchinghill Escarpment Special Area of Conservation (SAC) located 1.2km north and Site of Special Scientific Interest (SSSI) and Seabrook Stream SSSI 0.6km south west. The site is located within the Seabrook Stream SSSI Impact Risk Zone (IRZ).
- 5.4 The proposed development is unlikely to pose a risk to the SSSIs. The Local Planning Authority does not normally need to consult Natural England on this proposal regarding likely impacts on SSSIs.

Non-statutory Designated Sites

- 5.5 Non-statutory designated sites are Asholt Wood Pasture and Pond Local Wildlife Site, Paraker Wood and Seabrook Stream and Hacketts Copse Local Wildlife Sites (LWS). A20 Newington Village Roadside Nature Reserve.

Table 3: Statutory Designated Sites Located within 2km of the Site Boundary

Site Designation/ Reference	Reason for Designation	Approx. Distance and Direction from Site
Statutory Designated Sites		
Folkestone to Etchinghill Escarpment, Special Area of Conservation (SAC, SSSI)	187 ha of Chalk grassland and escarpment. An Annex 1 habitat Semi-natural dry grasslands and scrubland facies on calcareous substrate and is an important orchid site.	1.02 km N Within IRZ and ZOI
Seabrook Stream (SSSI)	23.ha of designated for its alder carr and fen communities and the exceptional number of crane fly species they support (67 species recorded on site to date)	0.66 km SW Within IRZ and ZOI
Non-Statutory Designated Sites		
Asholt or Ashley Wood Pasture and Pond Local Wildlife Site	Ancient woodland, pasture, pond and Seabrook stream – 8.8ha	1.09km NW
Paraker Wood and Seabrook Stream	Ancient woodland in Seabrook Valley - 25ha	0.66km SW
A20 Newington Village Roadside Nature Reserve	Roadside nature reserve	0.5km NW

Ancient Woodland

- 5.6 The site is located approximately 979m (northeast) from the closest area of ancient woodland listed on the woodland inventory as Paraker wood which is Ancient and Semi-Natural Woodland, Asholt Wood Ancient and Semi-natural Woodland approximately 1130m from the site boundary. There are further scattered and fragmented areas within the 2km search area.

Priority Habitats

- 5.7 Section 41 priority habitats located within 1km of the site boundary comprise deciduous woodland 66m to the north of site, and 750m from the closest area of open mosaic habitat to the west.
- 5.8 Connectivity to the wider areas including the continuity of habitat to designated sites is interrupted by the major roads and residential areas present which act as dispersal barriers to wildlife.

Phase 1 Habitat Survey

- 5.9 A total of 11 habitat types were recorded on site, namely: A1.1.1 Broadleaved Woodland, A2.1 Dense Scrub, A3 Scattered Trees, B4 Improved Grassland, C3.1 Tall Ruderal, J1.2 Amenity Grassland, J1.3 Ephemeral/Short Perennial, J1.4 Introduced Shrub, J2.4 Fence, J3.6 Buildings and J5 Hardstanding. Figure 1 shows the location of these habitat types within the site footprint. A full list of plant species recorded across the site is provided in Appendix 2, with photographs of site in Appendix 3.

A1.1.1 Broadleaved Woodland

- 5.10 A small parcel of broadleaved woodland exists in the south-eastern corner of the site and is dominated by mature hawthorn and blackthorn *Prunus spinosa* trees.

A2.1 Dense Scrub

- 5.11 Dense scrub is located in two areas on the site in the northeast and a smaller parcel to the south. Both areas are dominated by dogwood *Cornus sanguinea*, bramble *Rubus fruticosus*, hawthorn, *Crataegus monogyna*, common ivy *Hedera helix*, field maple *Acer campestre*, guelder-rose, *Viburnum opulus*.

A3 Scattered Trees

- 5.12 The area of improved grassland includes pockets of relatively recent native tree planting, most specimens are young. Species include alder *Alnus glutinosa*, beech *Fagus sylvatica*, silver birch *Betula pendula*, Hazel *Corylus avellana*, Holm Oak *Quercus ilex* and turkey oak *Quercus cerris*.

C3.1 Tall Ruderal

- 5.13 A small section of ruderal vegetation is present in the south-west corner. Species present include nettle *Urtica dioica*, spear thistle *Cirsium vulgare*, annual mercury *Mercurialis annua*, ragwort *Jacobaea vulgaris*, broad leaved willow herb *Epilobium montanum* and curled dock *Rumex crispus*.

B4 Improved grassland

- 5.14 Large areas of unmanaged improved grassland exist along the southern and western boundaries with a further small parcel located around the buildings along the western

boundary. The areas are dominated by creeping bent *Agrostis stolonifera*, spotted medick *Medicago arabica*, with common mouse-ear *Cerastium fontanum*, red fescue *Festuca rubra*, spear thistle *Cirsium vulgare*, hairy bittercress *Cardamine hirsute*. Of note were pockets of bee orchids *Ophrys apifera* (TN2, Figure 1), two common twayblade *Listera ovata* and a single pyramidal orchid *Anacamptis pyramidalis* likely indication of historic disturbance in this area.

J1.2 Amenity Grassland

- 5.15 Building 1 is surrounded by well maintained amenity grassland that is dominated by red fescue, there is also a small parcel of amenity grassland located in the northwest corner of one of the parking lots. Other species noted in these areas included annual bluegrass *Poa annua*, common Field-speedwell *Veronica persica*, ragwort, broad leaved willow herb, mouse-ear, hairy bittercress, Sandwort sp *Arenaria sp*, scarlet pimpernel *Anagallis arvensis* and ribwort plantain *Plantago lanceolata*.

J1.3 Ephemeral/Short Perennial

- 5.16 A section of ephemeral/short perennial vegetation exists along the southern boundary and areas are also growing amongst the introduced shrub. Species present included annual mercury, creeping thistle *Cirsium arvense*, spotted medick *Medicago arabica*, lords-and-ladies *Arum maculatum* and germander speedwell *Veronica chamaedrys*.

J1.4 Introduced Shrub

- 5.17 The boundary to the areas of hardstanding on site are dominated by planted introduced shrub. Some species present are native e.g. box *Buxus sempervirens*, hazel *Corylus avellana*, bramble *Rubus fruticosus*, elder *Sambucus nigra* and holly *Ilex aquifolium*. While other species are non-native; cherry laurel *Prunus laurocerasus*, firethorn sp *Pyracantha sp* and Mexican Orange Blossom *Choisya ternate*,

J2. Fencing

- 5.18 A chain link fence runs along the southern boundary, with metal mesh fencing running along the eastern and western site boundaries. A section of close board fencing in the west of the site divides the buildings from the area of native scrub.

J5. Hardstanding

- 5.19 The site is dominated by hardstanding, the majority of the site is designed for carparking and associated roads.

Target Notes

TN1 - Areas of suitable reptile habitat.

TN2 - Locations of orchids.

Evaluation of Habitats on Site

- 5.20 The site is formed of common and widespread habitat types, dominated by hardstanding, improved grassland and introduced shrub, it is therefore considered to be of low ecological importance, with the exception of the protected species it has the potential to support, breeding birds and reptiles.
- 5.21 The recently planted trees will be relocated on site to form new habitats of benefit for biodiversity and the orchids will be translocated on site to ensure they are retained post development, as detailed in Section 7. Measures will be required for tree protection see Section 7 for further details.
- 5.22 The proposal offers the opportunity to significantly increase the ecological importance of the site, as detailed in Section 8.

Protected Species Survey

- 5.23 A summary of the relevant records of granted European Protected Species Mitigation licences, relevant to the habitats on or adjacent to site from the last decade are discussed below. Further surveys and mitigation recommendations provided below are summarised in section 7 with enhancements recommendations provided in Section 8.

Bats

- 5.24 Bats, and their roosts, are protected under the EU Habitats Directive (transposed into UK law as the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019), and the Wildlife and Countryside Act 1981 (WCA) (as amended). This protects bats from killing, injury, capture and disturbance of their roosts from damage, destruction and obstruction.
- 5.25 The desk study provided no records for bats within the site boundary. There are two EPSML recorded within 1km of the site boundary. The nearest was 694m to the southeast resulting in the loss of a resting place for brown long eared and common pipistrelle *Pipistrellus pipistrellus* (2016-19507-EPS-MIT). Approximately 899m to the south a license was granted for the loss of a resting place for Brown long eared and common pipistrelle(2020-48275-EPS-MIT).
- 5.26 The development located to the east of the application site also required an EPSML for the destruction of a day roost for common pipistrelle, brown long eared bat and soprano pipistrelle *Pipistrellus pygmaeus*. These species were recorded emerging from the northern aspect of buildings to the north of the adjacent development site in August and September 2019. Measures to mitigate for the loss of the roosts comprise bat boxes installed on retained trees, and into the new builds (K B Ecology, 2019).

Bat Building Roost Assessment

- 5.27 No evidence of roosting bats were found within the site boundary. No suitable bat roosting features were identified in the on site trees or buildings. The buildings on site were in a good condition and deemed unsuitable for bats:
- Building 1 - Is a modern office block four stories high, constructed with large glass panels and metal balconys, beams and panels.
 - Building 2 – s a single-story bicycle store and electricity substation unit constructed with plastic panels and a tin corrugated roof.
 - Building 3 – Metal container.
 - Building 4 – Single story wooden storage shed, with a flat felted roof. This structure was sealed.
 - Building 5 – A larger single-story wooden storage shed with a apex roof covered in roofing felt.
- 5.28 Given the presence of a bat roost off site on the adjacent development, measures for the benefit of bats will be incorporated into the design as detailed in Section 7.

Great Crested Newts

- 5.29 Great crested newts, and their breeding/resting places, are protected under; the EU Habitats Directive (transposed into UK law as the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019), and the Wildlife and Countryside Act 1981 (WCA) (as amended). Together these protect GCNs from killing, injury, capture and disturbance, and their breeding/resting places from damage, destruction and obstruction.
- 5.30 No records of great crested newts (GCN) are held within the 1km search area, and no licence applications were found within the site boundary. The closest site with a granted EPSML for GCN is 1.1km northwest (EPSM 2009-669) and allowed for the destruction of a resting place.
- 5.31 One waterbody was identified within 250m of the site boundary. It was not possible to access the waterbody which is located 188m to the southeast on the other side of the Folkstone to London trainline (Figure 2).
- 5.32 Given the small scale of the site, lack of suitable habitats on site and the distance from pond, the Natural England Rapid Risk Assessment (Table 4) was used to assess the likelihood of an offence occurring if GCN were present within the pond. The risk assessment confirmed that the risk of an offence occurring as a result of the proposed development is highly unlikely.

Table 4: Natural England Rapid Risk Assessment

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

5.33 Therefore, no further survey will be required and GCN are not discussed further in this report. In the unlikely event that GCN are found on site, works must stop whilst an ecologist is contacted, and, if appropriate, an NE EPSML licence or District Level Licence (DLL) certificate is sought.

Dormice

5.34 Dormice and their breeding/resting places are protected under the EU Habitats Directive (transposed into UK law as the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019), and the Wildlife and Countryside Act 1981 (as amended). The desk study provided no records of dormice within 2km distance of the site.

5.35 The introduced shrub and scattered trees on site are considered unsuitable for dormice, having no understorey and poor arboreal links. It is considered unlikely that dormice would be present on-site. Therefore, no further measures are required for dormice and dormice are not discussed further in this report, the development of this area will be compliant with all known legislation and planning policy pertaining to dormice and dormice are not discussed further in this report.

Birds

5.36 All active bird nests are protected under the WCA 1981 from damage/destruction. Furthermore, birds that are listed on Schedule 1 of the Act are also protected from disturbance while they are nesting.

5.37 The desk study found no Schedule 1 or notable bird species recorded within the site boundary. During the Phase 1 Habitat Survey the following birds of conservation concern (BoCC5, 2021) were found to be using the site: Black-headed gull *Chroicocephalus ridibundus* (Amber), Dunnok *Prunella modularis* (Amber listed), Wren *Troglodytes troglodytes* (Amber).

5.38 The site habitat does not support wetland species, so these are not considered further here. The introduced shrub, scrub, trees, and buildings on site provide suitable habitat for nesting birds, therefore recommendations for timing of works and supervision

where required are provided in Section 8. Provided these measures are adhered with the development will be compliant with all known legislation and planning policy pertaining to birds.

Reptiles

- 5.39 Reptiles are protected from killing/injury under the Wildlife Countryside Act 1981 (as amended).
- 5.40 Locations of suitable reptile habitat are listed above under 'Target Notes' and shown on Figure 1. These areas include the areas of improved grassland and brush piles along the southern and eastern boundaries.
- 5.41 Further surveys are required to assess the presence or likely absence of reptiles on site, and if required to identify the population size, this is detailed in Section 7.

Badgers

- 5.42 Badgers, and their setts, are protected in the UK under the Protection of Badgers Act 1992.
- 5.43 No evidence of badgers, their setts or activity was found within the site boundary. Badgers vary their use of habitats and setts throughout the year. Therefore, precautionary measures will be taken and are detailed below in Section 7.

Hedgehogs

- 5.44 Hedgehogs are partially protected under the Wildlife and Countryside Act (1981) and the Natural Environment and Rural Communities (NERC) Act 2006; they are noted for being of principal importance for maintaining and enhancing biodiversity in England. Hedgehogs are a Biodiversity Action Plan (BAP) species.
- 5.45 The desk study provided records of hedgehog on the road 76m to the east of site. Habitats on site may support foraging and nesting hedgehogs and whilst none were observed during the site survey, it is considered possible that they may use the habitat features on-site. Actions to avoid harm to hedgehogs during construction are provided in Section 7.

6 Planning Context

National Planning Policy

- 6.1 Biodiversity, in particular protected species and habitats, is a material consideration of all planning applications. The National Planning Policy Framework (NPPF) was adopted in March 2012 (amended July 2021).

- 6.2 The NPPF requires that the local planning authority should aim to enhance biodiversity when determining planning applications, and opportunities to incorporate biodiversity in and around developments should be encouraged, especially where this can secure measurable net gains for the environment. Chapter 15 “Conserving and enhancing the natural environment”, states that this should be achieved by:

“..minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..”

- 6.3 Local planning authorities should therefore apply the following principles, taken from paragraphs 174 to 188, when determining planning applications:

- 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;
- development on land within or outside a Site of Special Scientific Interest (SSSI), 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 SSSIs;
- 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 reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

- 6.4 The following should be given the same protection as habitat sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; 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.

- 6.5 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats 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. “

Regional/Local Planning Policy

- 6.6 The following relevant sections are detailed within the Shepway Core Strategy Local Plan 2013 for Folkestone and Hythe and the relevant sections from the Places and Policies Local Plan adopted on the 16th September 2020;

Shepway Core Strategy Local Plan 2013 for Folkestone and Hythe

Biodiversity, nature conservation objectives and other less formal open spaces are important both within and adjacent to large towns. Therefore, development should where appropriately contribute to enhancing these aspects of green infrastructure (policy CSD4, see below). This approach also improves the visual integration of the urban area's-built extent into the surrounding countryside and coast.

Policy CSD4 Green Infrastructure of Natural Networks, Open Spaces and Recreation

- 6.7 *Improvements in green infrastructure (GI) assets in the district will be actively encouraged as will an increase in the quantity of GI delivered by Shepway District Council working with partners and developers in and around the sub-region, including through pursuing opportunities to achieve net gains in biodiversity, and positive management of areas of high landscape quality or high coastal/recreational potential. Green infrastructure will be protected and enhanced and the loss of GI uses will not be allowed, other than where demonstrated to be in full accordance with national policy, or a significant quantitative or qualitative net GI benefit is realised or it is clearly demonstrated that the aims of this strategy are furthered and outweigh its impact on GI. Moreover:*
- a. Development must avoid a net loss of biodiversity.*
 - b. The highest level of protection in accordance with statutory requirements will be given to protecting the integrity of sites of international nature conservation importance.*
 - c. A high level of protection will be given to nationally designated sites (SSSI and Ancient Woodland) where development will avoid any significant impact.*
 - d. Appropriate and proportionate protection will be given to habitats that support higher-level designations, and sub-national and locally designated wildlife/geological sites (including Kent BAP habitats, and other sites of nature conservation interest).*

Places and Policies Local Plan adopted on the 16th of September 2020

Policy NE2 Biodiversity (Protected Species)

- 6.8 *Development proposals that would adversely affect European Protected Species (EPS) or Nationally Protected Species will not be supported, unless appropriate safeguarding measures can be provided (which may include brownfield or previously developed land (PDL) that can support priority habitats and/or be of value to protected species).*

Policy NE2 Biodiversity (Development and the Natural Environment)

- 6.9 *All new development will be required to conserve and enhance the natural environment, including all sites of biodiversity or geodiversity value (whether or not they have statutory protection) and all legally protected or priority habitats and species. The Council will support development that:*

i. Enhances, retains and protects existing sites and features of nature conservation value including wildlife corridors, ancient woodland and geological exposure that contribute to the priorities established through the Biodiversity Action Plan and the Green Infrastructure Plan;

ii. Does not reduce, and where feasible, improves species' ability to move through the environment in response to predicted climate change, and to prevent isolation of significant populations of species; and

iii. Incorporates features that enhance biodiversity as part of good design and sustainable development, including the creation of new pollinator habitat suitable to the scale of development.

- 6.10 *The District has a number of undesignated sites, which may nevertheless host rare species or valuable habitats. Where a site is indicated to have such an interest, the applicant should observe the precautionary principle and the Council will seek to ensure that the intrinsic value of the site for biodiversity and any community interest is enhanced or, at least, maintained.*

- 6.11 *Where an impact cannot be avoided or mitigated (including post-development management and monitoring), compensatory measures will be sought. The Council may, in exceptional circumstances, allow for biodiversity offsets, to prevent loss of biodiversity at the district level. Such compensation will be directed to Biodiversity Opportunity Areas (BOAs) within the district or projects identified in the Council's Green Infrastructure Plan.*

Policy NE5 Light Pollution and External Illumination

- 6.12 *Applications for major development, and development including significant external lighting, will be approved if:*

1. The proposal does not materially alter light levels outside the development site;

2. *The proposal does not adversely affect the use or enjoyment of ... open spaces; and*
 3. *The proposed lighting scheme accords with the best practice guidance provided by the Institution of Lighting Professionals (ILP) (2011) relevant to the particular Environmental Zone.*
- 6.13 *For proposals involving sensitive uses (such as residential institutions) the Council will have regard to whether an existing neighbouring light source would make the proposed used unsuitable for the site.*
- 6.14 *Applications should include a lighting assessment with details of the following:*
- iv. *Possible ecological impact.*

7 Mitigation Measures

Further Survey and Mitigation Summary

- 7.1 The mitigation hierarchy has been considered during the design of the working methodology. The hierarchy states that adverse effects on biodiversity should be avoided where possible. Where adverse effects cannot be avoided through design, mitigation measures should be implemented to minimise the negative impact of the development upon biodiversity. In exceptional cases, where avoidance and mitigation are not possible, compensation measures can be considered. Alongside the efforts to avoid, mitigate or compensate for the negative impacts of the development, opportunities to enhance the ecological value of the site should also be considered.
- 7.2 Where further survey is required prior to determination of the appropriate mitigation approach this is detailed below.
- 7.3 Biodiversity, in particular protected species and habitats, are a material consideration of all planning applications. The National Planning Policy Framework (NPPF) was adopted in March 2012 (Amended July 2021), and Chapter 15 “Conserving and enhancing the natural environment” states that this should be achieved by:

“..minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..”

Broadleaved Woodland

- 7.4 The broadleaved woodland in the southeast corner will be retained and protected by Tree Protection Fencing (TPF) to standard BS5837. TPF will be erected prior to any site work and will remain in place until the completion of all construction and landscaping. Materials will not be stored within or against the TPF at any time.

Translocation of Recently Planted Trees

- 7.5 The recently planted trees within the area of improved grassland along the eastern boundary will be retained on site and translocated to create areas of dense mixed native scrub and a new linear tree line or hedgerow along the southern boundary (Figure 3). At least five native woody species are to be transported including hazel, silver birch *Betula pendula*, hawthorn *Crataegus monogyna*, blackthorn, dogwood *Cornus sanguinea*, beech *Fagus sylvatica* and alder *Alnus glutinosa*. All invasive non-native/undesirable species (e.g. cotoneaster *Cotoneaster sp.*, cherry laurel *Prunus laurocerasus*) will be removed from site.
- 7.6 The management scheme around the translocated trees will insure no single species will comprise more than 75% of the cover and will allow tall grassland borders to grow between the scrub and newly created boundary features and other habitats.
- 7.7 The young trees will be translocated while they are dormant between October and mid-March. The translocation will follow advice from the landscape architect in the first instance with trees translocated using an excavator with a toothed bucket with an experienced operator who will ease the tree and its root ball slowly from the soil. The whole tree will then be moved directly to the pre prepared receptor site (Box et al, 2010) in accordance with the landscape proposals.

Bee, Twayblade and Pyramidal Orchids

- 7.8 Orchids are protected under Section 13 of the Wildlife and Countryside Act (1981). Several bee orchids were identified within the areas of improved grassland on site (Figure 2). All three orchids are found in a range of habitats including calcareous grassland, roadside verges, and railway banks (Raven, 2012). Bee orchids are slow growing and may only flower once in their lifetime, common twayblades reproduce vegetatively and pyramid orchids are scented which attracts different butterflies and moths (Raven, 2012).
- 7.9 Therefore, the orchids will be retained in situ on site post development, where possible. Where this is not possible, they will be translocated prior to commencement of construction to a suitable area of retained habitat on site. The orchids will be translocated to a pre-designated and suitably prepared receptor area (Figure 3) underneath the electricity pylon and within the woodland in the southeast of the site. As it is important that the receptor site is close to and has similar soil conditions to the donor site.
- 7.10 The translocation will take place while the orchids are dormant e.g. between August – October and will be translocated and replanted on the same day. The orchid locations will be clearly marked out by a suitable qualified ecologist using hazard tape and

bamboo canes. The orchids will then be translocated using either hand tools or an excavator (this will depend on their distribution throughout the site).

- 7.11 Orchids have a close association with the mycorrhizal fungi within the soils, therefore depending on their means of extraction a certain proportion of the surrounding soils should also be translocated. The success rate of translocated orchids is greatly increased when fungus is added to the soil at the donor site (Smith et al, 2009).

Protected Species

Bats

- 7.12 No suitable bat roosting features were found on site. A bat roost was previously recorded on the adjacent site, therefore, the proposal includes the following mitigation to avoid impacting bats:

- Construction works will take place during daylight hours only, no artificial lights will be used to light the boundary habitats during the construction.
- The lighting design for the scheme will take account of commuting and foraging bats, by ensuring that there is no excess light spillage on mature trees and hedgerows, on the open space or the hedgerow boundary features on site and the boundary to the development to the east, or features introduced for bats.
- This will include the placement of baffles/downward-facing lights or bollard-level lighting and use of low wattage lights with limited lighting within the UV spectrum.
- Security lights will be hooded, motion-sensor controlled and timed to be on for as short a time as possible.

- 7.13 Habitat creation on site will enhance the site for bats post development, as detailed in Section 8.

Birds

- 7.14 The removal of any trees, shrub or scrub and buildings will avoid the bird nesting season (March to August inclusive). If this is not possible removal will occur under the supervision of a suitably qualified ecologist who will check for any active nests. If found to be present, a buffer zone, where no development activities will occur, will be cordoned off by the supervising ecologist until the young have fledged. Provided the above recommendations are adhered to, the proposed development of the site will not contravene any legislation or planning policy pertaining to breeding birds

Reptiles

- 7.15 The improved grassland to the eastern and southern boundary provides limited areas of suitable habitat on-site for reptiles. Given the limited extent of the habitat on site in

the event reptiles are present it is likely a low population is present which could be facilitated within the open space to be retained to the southern boundary, with some minor changes to the parking layout if required.

- 7.16 Therefore, a presence/likely absence survey will be carried out during the 2022 survey season. Following the bedding in of reptile refugia, seven site visits will be carried out between April – October inclusive in suitable weather and temperature conditions following published guidance (Froglife, 1999 and NE, 2014).
- 7.17 The results of the presence / likely absence surveys will inform the suitable level of mitigation required. The results of the surveys and appropriate mitigation approach will be detailed in a separate report and submitted on completion of reptile surveys for approval to the local planning authority.

Badgers

- 7.18 Due to the likelihood of badgers commuting and foraging through site, precautionary measures are required during construction to avoid trapping badgers in trenches or holes. These will comprise covering any steep sided holes or trenches or leaving a sturdy ramp or plank within to provide an escape route.
- 7.19 Providing these measures are followed the development will be compliant with all known legislation and planning policy pertaining to badgers

Hedgehogs

- 7.20 Clearance of vegetation under 30cm in height should be carried out by hand or following a check by a suitably qualified ecologist using suitable machinery. This also includes other suitable piles of refuse and brash piles that hedgehogs may shelter or hibernate under. In the unlikely event that a hedgehog is found it will be relocated to a suitable area of habitat or habitat pile within the southern boundary.
- 7.21 Measures to ensure badger are protected from the development detailed above will also apply to hedgehogs. In the unlikely event that a hedgehog is found during works it will be relocated to an area of trees within the ownership boundary well away from construction activities. Providing these measures are followed the development will be compliant with all known legislation and planning policy pertaining to hedgehog.

8 Enhancement Recommendations

- 8.1 The NPPF requires that the local planning authority should aim to enhance biodiversity when determining planning applications and opportunities to incorporate biodiversity in and around developments should be encouraged.

Habitats

- 8.2 The landscaping proposals for the development will include enhanced areas of native species rich wildflower meadow and grassland in south-facing or suitable sunny areas. These areas will be seeded with a wildflower and grass seed mix consisting of 9-15 species per m² to include species such as common knapweed *Centaurea nigra*, meadow buttercup *Ranunculus acris* and tufted vetch *Vicia cracca*. Example of a recommended mix would be Emorsgate EM10 Tussock mixture. The areas will be managed going forward with an annual conservation-cut, allowing the plants to flower and seed before mowing, and allowing a longer length and denser tussocky sward to develop.
- 8.3 Removed vegetation and trees will where possible be retained in the form of brash and log piles, within the boundary areas to provide shelter and basking opportunities for biodiversity. These will be formed of native tree species and located in sunny positions.
- 8.4 The retained and new native tree, shrub and hedge planting, that the proposed development will provide will significantly improve foraging and nesting opportunities for birds, bats, invertebrates and other mammals using the site.

Protected Species

- 8.5 Further recommendations for enhancing the biodiversity of the site for protected species are as follows:
- Five Habitat 001 bat bricks, or Schwegler 1FF bat boxes (if the incorporation of bat bricks into the build is unfeasible). These will be either installed on buildings within the proposed development or mounted on retained trees, at a height of at least 3m, with an unobstructed access point and on a southerly aspect where possible, facing away from the prevailing winds. Suggested location of the boxes can be seen in Figure 3. Research into bat mitigation by The University of Exeter and the Chartered Institute of Ecology and Environmental Management (2018) has shown bats are unlikely to use bat boxes where less than five are installed as bats roost transiently, requiring several to be available at a time to facilitate roost selection based on weather conditions and the other factors.
 - Five bird bricks for small and mid-sized garden birds, such as Schwegler 24, 25, 26 (or similar) nest boxes will be incorporated into the development buildings. These will be 3-5m above ground level to provide further nesting and roosting opportunities for birds on site. These will avoid facing directly north or south.
 - Native species-rich wildflower meadow and tussocky grassland will be incorporated into most areas of open green space. The creation of the wildflower meadow across the site will increase plant biodiversity on site, and benefit dwindling invertebrate pollinators including butterflies, moths, bees, spiders and millipedes. The increase in plant diversity and invertebrates will benefit the local off site bat population, birds and mammals.

- The soft landscaping around the site will be planted for the benefit of pollinators to include the following species: heather *Calluna vulgaris*, musk mallow *Malva moschata*, English lavender *Lavandula angustifolia*, common box *Buxus semper* and guelder rose *Viburnum opulus*.
- The boundary/linear features around the site will be strengthened by planting native tree or hedge lines as these landscape features can be used by bats as navigational aids when commuting across the landscape.
- Wood habitat piles and hibernacula will be created from native wood fallen or felled on site in appropriate locations within the landscaping scheme as this will provide habitat for a range of species including reptiles, amphibians, saproxylic invertebrates and small mammals.
- Hedgehog “highways” will be provided across site to allow permeability of the site to hedgehogs. These will be in the form of 13x13cm gaps within close boarded fence separating gardens.

9 Conclusion

- 9.1 The majority of habitats on site are common and widespread, with ecological importance existing only where protected species may be present. The boundary habitats and grassland are currently in poor condition. The proposal offers the opportunity to enhance the site for biodiversity.
- 9.2 Due to the presence of suitable reptile habitat on site, a presence /likely absence survey will be completed in 2022, with a separate report detailing the results of the survey and suitable mitigation to be provided on site to be submitted to the local planning authority for approval.
- 9.3 The measures detailed in Section 5 and summarised in Section 7 will ensure that the favourable conservation status of species present is managed whilst details in Section 8 provide enhancement opportunities, which in line with Chapter 15 of the NPPF, will enhance the biodiversity of the site.

10 References

Box, J and Stanhope, K. (2010). *Translocation of Wildlife Habitats: A Guide for Civil Engineers*. Civil Engineering, 163: 123-130.

CIEEM (2019) *Advice Note, On the Lifespan of Ecological Reports and Surveys*, April 2019. Chartered Institute for Ecology and Environmental Management. Accessed Online.

CIEEM (2021). *Guidance on Ecological Survey and Assessment in the UK During the COVID-19 Outbreak. Version 4*. Published 10 February 2021. Chartered Institute of Ecology and Environmental Management, Winchester, UK.

Collins, J (2016). *Bat Surveys for Professional Ecologists. Good Practice Guidelines*. 3rd edition, Bat Conservation Trust.

English Nature (2006). *The Dormouse Conservation Handbook*. Second edition. English Bat Conservation Trust (2012). *Bat Surveys Good Practice Guidelines*. Bat Conservation Trust, London.

Froglife (1999). *Reptile Survey: An Introduction To Planning, Conducting And Interpreting Surveys For Snake and Lizard Conservation*. Froglife Advice Sheet 10. Froglife, Halesworth

Forestry Practice Division (1995). *Forest Operations and Badger Setts. Forestry Practice Guide 9*. Forestry Practice Division of behalf of the Forestry Commission; Edinburgh

Gent and Gibson (2003), *Herpetofauna Workers Manual* JNCC, Peterborough

Hill D., Fasham M., Tucker G., Shrewry M. and Shaw P., (2005). *Handbook of Biodiversity Methods, Survey, Evaluation and Monitoring*. Cambridge University Press, Cambridge.

JNCC, (2010). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. JNCC, Peterborough

K. B. Ecology (2019) *Bat Survey and Mitigation Strategy*, Brockman Family Centre, Cheriton High Street, Folkstone, Kent.

MAGIC Interactive Map. Available from: <http://www.magic.gov.uk/home.htm>

Ministry of Housing, Communities and Local Government (DCLG). (2021). *National Planning Policy Framework*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004408/NPPF_JULY_2021.pdf Accessed 21.07.21

Natural England. (2014). *Reptiles: Surveys and Mitigation For Development Projects*. Available from: <https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences> (Accessed April 2017)

Raven S (2012). *Wild Flowers*. Bloomsbury Publishing Plc. London

Smith. Z, James. E, McDonnell. M, Mclean. C. (2009). *Planting Conditions Improve Translocation Success of the Endangered Terrestrial Orchid Diuris fragrantissima (Orchidaceae)*. Australian Journal of Botany, 2009, 57, 200–209.

11 Appendices

Appendix 1: Level of Importance

Appendix 2: Full List of Plant Species

Appendix 3: Site Photographs

Appendix 1. Level of Importance

Table with classified levels of importance for Ecological Impact Assessment.

Geographic Scale	Example
International	<p>An internationally designated site¹, or site which would meet the criteria for such a designation. A viable area of Annexe 1 habitat type, or smaller area essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring population of an internationally important species, threatened or rare in the UK. A regularly occurring, nationally significant population/ number of any internationally important species.</p>
National	<p>A nationally designated site², or site which would meet the criteria of such a designation. A viable area of a Habitat of Principal Importance and priority habitats in England (NERC Act 2006) or smaller areas essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring, regionally or county significant population/number of any nationally important species. A feature identified as of Habitat or Species of Principal Importance or Priority habitats</p>
Regional	<p>Sites which exceed the County-level designations but fall short of SSSI selection guidelines.</p> <p>Viable areas of key habitat identified in the Regional BAP or smaller areas essential to maintain the viability of a larger whole. Viable areas of key habitat of Regional value in the appropriate Natural Area profile.</p> <p>Any regularly occurring, locally significant population of a species nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of regional rarity or localisation. A regularly occurring, locally significant number of a regionally important species.</p>
Metropolitan, County, Vice County	<p>Semi-natural ancient woodland greater than 0.25ha. County/Metropolitan sites which meet the published ecological selection criteria for designation, including Local Nature Reserves (LNR) selected on County/Metropolitan ecological criteria. A viable area of Habitat of Principle Importance and Priority Habitats in England (NERC)</p> <p>A regularly occurring, locally significant population of a County/Metropolitan “red data book” or LBAP species on account of</p>

	regional rarity or localisation. A regularly occurring, locally significant number of a County/Metropolitan important species.
District	<p>Semi-natural ancient woodland smaller than 0.25 ha. Areas of habitat identified in a sub-county (District/Borough) BAP or in the relevant Natural Area profile. District sites that meet the published ecological selection criteria for designation, including LNR selected on District/Borough ecological criteria. Sites/features scarce within the District/Borough. A diverse and/or ecologically valuable hedgerow network.</p> <p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. A regularly occurring, locally significant number of a District/Borough important species during a critical phase of its life cycle.</p>
Local	Areas of habitat considered to appreciably enrich the habitat resource within the context of the parish or neighbourhood (e.g. species-rich hedgerows); and LNRs selected on parish ecological criteria.

¹ Such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or, Wetlands of International Importance (RAMSAR)

² Such as Site of Special Scientific Interest (SSSI)

Appendix 2. Full List of Plant Species

Phase 1 Habitat Survey Results: Full List of Plant Species

P 1 Habitat Type & Area	Common Name	Scientific Name	Presence (DAFOR scale)
A1.1.1 Broadleaved Woodland: One small section in south-eastern corner of site			
A1.1.1 area	Hawthorn	<i>Crataegus monogyna</i>	A
A1.1.1 area	Blackthorn	<i>Prunus spinosa</i>	A
A2.1 Dense Scrub: A small sections to the south and one small section to the northwest			
A2.1 areas	Dogwood	<i>Cornus sanguinea</i>	A
A2.1 areas	Bramble	<i>Rubus fruticosus agg.</i>	F
A2.1 areas	Ivy	<i>Hedera helix</i>	A
A2.1 areas	Hawthorn	<i>Crataegus monogyna</i>	F
A2.1 areas	Field maple	<i>Acer campestre</i>	O
A2.1 areas	Guelder rose	<i>Viburnum opulus</i>	R
A3 Scattered Trees: Scattered trees occur across the whole of the site, with recently planted trees along the eastern boundary of the site.			
Young plantation	Alder	<i>Alnus glutinosa</i>	F
Young plantation	Beech	<i>Fagus sylvatica</i>	F
Across the site	Blackthorn	<i>Prunus spinosa</i>	F
Young plantation	Hazel	<i>Corylus avellana</i>	F
Across the site	Hawthorn	<i>Crataegus monogyna</i>	F
Young plantation	Holm Oak	<i>Quercus ilex</i>	F
Young plantation	Silver birch	<i>Betula pendula</i>	F
Young plantation	Turkey Oak	<i>Quercus cerris</i>	F
Carpark	Yew	<i>Taxus baccata</i>	O

Carpark	White beam	<i>Sorbus aria</i>	O
Carpark	Rowan	<i>Sorbus aucuparia</i>	O
Carpark	Cherry sp.	<i>Prunus spp.</i>	O
B4 Improved Grassland: Two main sections to the southwest and southeast against the boundary and one smaller section in the centre of the site			
B4 areas	Bee orchid	<i>Ophrys apifera</i>	O
B4 areas	Twayblade	<i>Listera ovata</i>	R
B4 areas	Pyramidal orchid	<i>Anacamptis pyramidalis</i>	R
B4 areas	Spear thistle	<i>Cirsium vulgare</i>	F
B4 areas	Hairy bittercress	<i>Cardamine hirsuta</i>	F
B4 areas	Common ragwort	<i>Senecio jacobaea</i>	O
B4 areas	Common Mouse-ear	<i>Cerastium fontanum</i>	O
B4 areas	Red fescue	<i>Festuca rubra</i>	A
B4 areas	Dandelion	<i>Taraxacum officinalis</i>	R
B4 areas	Prickly sow thistle	<i>Sonchus asper</i>	R
B4 areas	Dove's foot cranesbill	<i>Geranium molle</i>	F
B4 areas	Spotted medick	<i>Medicago arabica</i>	F
B 4 areas	Common daisy	<i>Bellis perennis</i>	F
B4 areas	Bugle	<i>Ajuga reptans</i>	R
B4 areas	Creeping buttercup	<i>Ranunculus repens</i>	R
B4 areas	Yorkshire fog	<i>Holcus lanatus</i>	O
B4 areas	Creeping bent	<i>Agrostis stolonifera</i>	A
B4 areas	Willowherb sp.	<i>Epilobium spp.</i>	F
B4 areas	Cleavers	<i>Galium aparine</i>	R
B4 areas	Annual meadowgrass	<i>Poa annua</i>	A
B4 areas	Springy Turf Moss	<i>Rhytidiadelphus squarrosus</i>	F

B4 areas	Self-heal	<i>Prunella vulgaris</i>	R
B4 areas	Bristly oxtongue	<i>Helminthotheca echioides</i>	O
B4 areas	Meadow buttercup	<i>Ranunculus acris</i>	O
B4 areas	Cock's foot	<i>Dactylis glomerata</i>	F
B4 areas	Curled dock	<i>Rumex crispus</i>	O
B4 areas	Scarlet pimpernel	<i>Anagallis arvensis</i>	O
B4 areas	Yarrow	<i>Achillea millefolium</i>	R
B4 areas	Red deadnettle	<i>Lamium purpureum</i>	R
C3.1 Tall Ruderal: Two small sections to the south of the site close to the boundary			
C3.1 areas	Spear thistle	<i>Cirsium vulgare</i>	F
C3.1 areas	Common nettle	<i>Urtica dioica</i>	R
C3.1 areas	Annual mercury	<i>Mercurialis annua</i>	O
C3.1 areas	Common ragwort	<i>Senecio jacobaea</i>	F
C3.1 areas	Willowherb sp.	<i>Epilobium spp.</i>	F
C3.1 areas	Curled dock	<i>Rumex crispus</i>	O
J1.2 Amenity Grassland: Two small strips around building			
J1.2 areas	Red fescue	<i>Festuca rubra</i>	A
J1.2 areas	Common ragwort	<i>Senecio jacobaea</i>	F
J1.2 areas	Willowherb sp.	<i>Epilobium spp.</i>	O
J1.2 areas	Groundsel	<i>Senecio vulgaris</i>	O
J1.2 areas	Common Mouse-ear	<i>Cerastium fontanum</i>	O
J1.2 areas	Hairy bittercress	<i>Cardamine hirsuta</i>	O
J1.2 areas	Bucks horn plantain	<i>Plantago coronopus</i>	R
J1.2 areas	Creeping thistle	<i>Cirsium arvense</i>	O
J1.2 areas	Dove's foot cranesbill	<i>Geranium molle</i>	F

J1.2 areas	Annual meadow-grass	<i>Poa annua</i>	A
J1.2 areas	Scarlet pimpernel	<i>Anagallis arvensis</i>	O
J1.2 areas	Ribwort plantain	<i>Plantago lanceolata</i>	O
J1.2 areas	Common cat's ear	<i>Hypochaeris radicata</i>	R
J1.2 areas	Field speedwell	<i>Veronica persica</i>	R
<i>J1.3 Ephemeral/Short Perennials: One small section on the southern boundary</i>			
J1.3 centre point of the southern boundary	Guelder rose	<i>Viburnum opulus</i>	R
Centre point of the southern boundary	Annual mercury	<i>Mercurialis annua</i>	O
Centre point of the southern boundary	Spotted medick	<i>Medicago arabica</i>	O
Centre point of the southern boundary	Creeping thistle	<i>Cirsium arvense</i>	O
Centre point of the southern boundary	Common ragwort	<i>Senecio jacobaea</i>	O
Centre point of the southern boundary	Groundsel	<i>Senecio vulgaris</i>	R
Centre point of the southern boundary	Dandelion	<i>Taraxacum officinalis</i>	R
Centre point of the southern boundary	Prickly sow thistle	<i>Sonchus asper</i>	R
Centre point of the southern boundary	Hairy bittercress	<i>Cardamine hirsuta</i>	O
Centre point of the southern boundary	Germander speedwell	<i>Veronica chamaedrys</i>	R
Centre point of the southern boundary	Red fescue	<i>Festuca rubra</i>	A
Centre point of the southern boundary	Canadian fleabane	<i>Conyza canadensis</i>	F

Centre point of the southern boundary	Bristly oxtongue	<i>Helminthotheca echioides</i>	O
Centre point of the southern boundary	Lords and ladies	<i>Arum maculatum</i>	R
Centre point of the southern boundary	Honeysuckle	<i>Lonicera periclymenum</i>	R
Centre point of the southern boundary	Common nettle	<i>Urtica dioica</i>	O
Centre point of the southern boundary	Common Whitlow-grass	<i>Erophila verna</i>	F
Centre point of the southern boundary	Rue-leaved Saxifrage	<i>Saxifraga tridactylites</i>	R
J1.4 Introduced Shrub: Across the whole site surrounding hard standing areas			
J1.4 areas	Mexican orange blossom	<i>Choisya ternata</i>	A
J1.4 areas	Ivy	<i>Hedera helix</i>	A
J1.4 areas	Cherry laurel	<i>Prunus laurocerasus</i>	A
J1.4 areas	Mahonia spp	<i>Mahonia spp.</i>	F
J1.4 areas	Buddleia	<i>Buddleia davidii</i>	O
J1.4 areas	Hazel	<i>Corylus avellana</i>	O
J1.4 areas	Bramble	<i>Rubus fruticosus agg.</i>	F
J1.4 areas	Viburnum spp.	<i>Viburnum spp.</i>	F
J1.4 areas	Prunus spp.	<i>Prunus spp.</i>	A
J1.4 areas	Leylandii sp.	<i>Cupressus × leylandii</i>	R
J1.4 areas	Ornamental ivy	<i>Hedera spp.</i>	R
J1.4 areas	Olive sp	<i>Olive spp.</i>	O
J1.4 areas	Hornbeam	<i>Carpinus betulus</i>	R
J1.4 areas	Deergrass	<i>Trichophorum germanicum</i>	O

J1.4 areas	Elder	<i>Sambucus nigra</i>	O
J1.4 areas	Firethorn	<i>Pyracantha coccinea</i>	F
J1.4 areas	Garden lavender	<i>Lavandula x intermedia</i>	O
J1.4 areas	Daffodil	<i>Narcissus pseudonarcissus</i>	O
J1.4 areas	Cotoneaster spp.	<i>Cotoneaster sp</i>	A
J1.4 areas	Hollyberry cotoneaster	<i>Cotoneaster bullatus</i>	F
J1.4 areas	Flowering black current	<i>Grossulariaceae spp.</i>	O
J1.4 areas	Holly	<i>Ilex aquifolium</i>	O

Appendix 3. Site Photographs



View of buildings 1, 2, 3, 4 and 5 and introduced shrub.



Improved grassland and introduced shrub to the southern boundary.



Bee Orchid *Ophrys apifera* rosette



View to the site entrance of hardstanding, amenity grassland, building 1 and introduced shrub.



View to the west of the carpark, including some scattered trees.



View towards the south showing some of the recently planted trees.