

Former Dee Road Fire Station, Dee Road,
Reading

Ecological Appraisal

July 2022

Quality Management	
Client:	Bellway Homes Limited (Thames Valley)
Project:	Former Dee Road Fire Station, Dee Road, Reading
Report Title:	Ecological Appraisal
Project Number:	ECO-6555
File Reference:	6555 EcoAp vf ES/LN
Date:	29/07/2022

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Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Bellway Homes Limited (Thames Valley) in February 2022 to undertake an Ecological Appraisal in respect of proposed redevelopment of land at the former Dee Road Fire Station, Dee Road, Reading.
- ii) **Proposals.** The proposals are for redevelopment of the site to provide 63 residential units with associated landscaping, parking and infrastructure.
- iii) **Survey.** The site was surveyed in June 2022 based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats and Badger.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory and non-statutory designations are Lousehill Copse Local Nature Reserve (LNR) and Local Wildlife Site (LWS), located approximately 0.1km to the west of the site. All of the ecological designations in the surrounding area are physically well separated from the site and are unlikely to be adversely affected by the proposals.
- v) **Habitats.** The site comprises buildings and hardstanding with discrete areas of bare ground, surrounded by areas of amenity grassland and amenity planting with standard trees and scattered scrub. None of the habitats within the site are considered to form important ecological features and their loss to the proposals is of negligible significance.
- i) **Protected Species.** The site generally offers limited opportunities for protected species and no evidence of any such species was recorded during the survey work undertaken. Additional survey work is to be completed in respect of roosting bats and long-term opportunities will be maintained, if not enhanced, under the proposals for protected species through appropriate and proportionate mitigation, where necessary.
- ii) **Enhancements.** The proposals present the opportunity to secure a number of net gains for biodiversity, including additional native tree planting, new roosting opportunities for bats, and more diverse nesting habitats for birds.
- iii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm.

1 Introduction

1.1 Background and Proposals

- 1.1.1 Aspect Ecology was commissioned by Bellway Homes Limited (Thames Valley) in February 2022 to undertake an Ecological Appraisal in respect of proposed development of land at the former Dee Road Fire Station, Dee Road, Reading, centred at grid reference SU 68524 73363 (see Plan 6555/ECO1), hereafter referred to as 'the site'.
- 1.1.2 The proposals are for redevelopment of the site to provide 63 residential units with associated landscaping, parking and infrastructure.

1.2 Site Overview

- 1.2.1 The site is located in urban context within the west of Reading. The site is surrounded by residential dwellings associated with Leven Street, Spey Road, Dee Road, and Gairn Close, beyond which lies further urban residential areas, with Lousehill Copse Local Nature Reserve (LNR) located approximately 0.1km to the east.
- 1.2.2 The site itself comprises a former fire station, including eight buildings located across the site which include disused offices, a workshop, substation, engine garage, drill training tower, and equipment stores. The buildings are associated with car parking, and a mixture of amenity grassland, beds of amenity planting and a single treeline are also present.

1.3 Purpose of the Report

- 1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are proposed so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

2 Methodology

2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings Thames Valley Environmental Records Centre (TVERC) was contacted in June 2022, with data requested on the basis of a search radius of 2km. Where information has been received from TVERC, this is reproduced on Plan 6555/ECO2, where appropriate.
- 2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced on Plan 6555/ECO2, where appropriate.
- 2.1.3 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

2.2 Habitat Survey

- 2.2.1 The site was surveyed in June 2022 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology¹, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal² to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

2.3 Faunal Surveys

- 2.3.1 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to bats and Badger, as described below.

¹ Joint Nature Conservation Committee (2010, as amended) *'Handbook for Phase 1 habitat survey: A technique for environmental audit.'*

² Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) *'Guidelines for Preliminary Ecological Appraisal.'*

Bats³

Visual Inspection Surveys

- 2.3.2 **Buildings.** Buildings within the site were subject to specific external and internal inspection surveys in June 2022.
- 2.3.3 During the external inspections, particular attention was given to any potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles, etc. and for any external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect any inaccessible areas more closely where appropriate.
- 2.3.4 During the internal inspections, evidence for the presence of bats was searched for with particular attention paid to any loft voids and relevant potential roost features and locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Specific searches were made for bat droppings that can indicate present or past use and extent of use, whilst other signs that can indicate the possible presence of bats were also searched for, e.g. presence of stained areas, feeding remains, corpses, etc.
- 2.3.5 **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁴ as:
- Negligible;
 - Low;
 - Moderate; or
 - High.
- 2.3.6 Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.

Badger (*Meles meles*)⁵

- 2.3.7 A detailed Badger survey was carried out in June 2022. The survey comprised two main elements. The first element involved searching for evidence of Badger setts. The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

2.4 Survey Constraints and Limitations

- 2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken within the optimal season therefore allowing a robust assessment of habitats and botanical interest across the site.

³ Surveys based on: English Nature (2004) 'Bat Mitigation Guidelines' and Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

⁴ Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

⁵ Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'

2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.4.3 An internal inspection of building B8 was not completed due to asbestos warning signs indicating the building was unsafe to enter. A comprehensive external visual inspection survey of building B8 was nonetheless undertaken, and a precautionary approach to assigning bat roost potential employed. As such, further dusk emergence and dawn re-entry surveys will be completed to provide a fully robust assessment as to the presence or likely absence of roosting bats, which will also inform a proportionate mitigation strategy (as required).

2.5 Ecological Evaluation Methodology

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)⁶, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 6555/1.

2.6 National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)⁷ describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 15). NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' and ODPM Circular 06/2005⁸.

2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss⁹, as set out at Paragraph 170, which states that planning policies and decisions should contribute to and enhance the natural and local environment 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'

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 175:

'When determining planning applications, local planning authorities should apply the following principles:

- 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;*

⁶ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

⁷ Ministry of Housing, Communities & Local Government (2019) 'National Planning Policy Framework'

⁸ ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

⁹ DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

- 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 reasons and a suitable compensation strategy exists; and*
- d) *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.*

2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019¹⁰, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

2.7 Local Policy

2.7.1 The site is situated within the administrative area of Reading Borough Council. The current 'Reading Borough Local Plan' contains planning policies to manage development across the borough until 2036 and was adopted in November 2019. Relevant policy pertaining to ecology from the Local Plan is reproduced below.

2.7.2 Policy EN12 – Biodiversity and the Green Network:

'a) The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- *Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and*

¹⁰ British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and

- *Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*

'b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:

- *Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and*
- *Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.*

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is "no net loss" of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.'

2.7.3 Policy EN14 – Trees, Hedges and Woodlands:

'Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Reading's vegetation cover will be extended. The quality of waterside vegetation will be maintained or enhanced.

New development shall make provision for tree retention and planting within the application site, particularly on the street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change. Measures must be in place to ensure that these trees are adequately maintained.'

3 Ecological Designations

3.1 Statutory Designations

Description

- 3.1.1 The statutory designations of ecological importance that occur within the local area are shown on Plan 6555/ECO2. The nearest statutory designation is Lousehill Copse Local Nature Reserve (LNR) located approximately 0.1km to the west of the site. The LNR is designated on the basis of its broadleaved semi-natural woodland, streams and ponds. The next nearest statutory designation is Round Copse LNR located approximately 0.8km to the north of the site. Round Copse LNR is designated for its woodland which supports a number of bird species including all three native Woodpecker species.
- 3.1.2 The nearest internationally designated site is Hartslock Wood Special Area of Conservation (SAC) located approximately 8.1km to the north-west of the site. The SAC is designated on the basis of its Priority Habitat type 'orchid rich sites' comprised of calcareous semi-natural dry grassland and scrubland facies, which support one of only three UK populations of Monkey Orchid *Orchis simia*.
- 3.1.3 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. The site sits within an IRZ in relation to Sulham and Tidmarsh Woods and Meadows Site of Special Scientific Interest (SSSI) (located approximately 4.2km to the west of the site), however the IRZ does not apply to residential development.

Evaluation

- 3.1.4 The site itself is not subject to any statutory ecological designations. Lousehill Copse LNR is managed for amenity access and the designation citation states that the area is an important local amenity resource. As such, any increase in visitors as a result of the development is unlikely to have a significant adverse impact on the LNR. All statutory ecological designations in the surrounding area are well separated from the site by existing urban development and given the nature and scale of the proposals, these designations are unlikely to be affected.

3.2 Non-statutory Designations

Description

- 3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 6555/ECO2. The nearest non-statutory designation is Lousehill Copse Local Wildlife Site (LWS), which is located approximately 0.1km to the west of the site and largely overlaps with the Lousehill Copse LNR. The next nearest non-statutory designation is Prospect Park (Including the Rookery) LWS, located approximately 0.4km to the south of the site, of which the Prospect Park forms an historic parkland with several veteran trees, hedgerows, areas of scrub, scrub woodland and a shaded pond, whilst The Rookery is an area of lowland mixed deciduous woodland.

Evaluation

- 3.2.2 The site itself is not subject to any non-statutory nature conservation designations. All non-statutory designations in the surrounding area are well separated from the site by existing

development and given the nature and scale of the proposals, these designations are unlikely to be affected.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

Description and Evaluation

- 3.3.1 There are no records of any notable or veteran trees or Priority Habitats within or adjacent to the site. Therefore, no such habitats are expected to be adversely impacted by the proposals.

3.4 Summary

- 3.4.1 In summary, the site itself is not subject to any statutory or non-statutory ecological designations and it is unlikely that any such designations in the surrounding area will be significantly affected by the proposals.

4 Habitats and Ecological Features

4.1 Background Records

- 4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from the Records Centre. A number of records of the Priority Species Bluebell *Hyacinthoides non-scripta* were returned dating between 1997 and 2021, none of which were recorded within or adjacent to the site.

4.2 Overview

- 4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.

- 4.2.2 The following habitats/ecological features were identified within/adjacent to the site:

- Buildings, Hardstanding and Bare Ground;
- Amenity Grassland;
- Amenity Planting;
- Scattered Scrub;
- Treeline; and
- Trees.

- 4.2.3 The locations of these habitat types and features are illustrated on Plan 6555/ECO3 and described in detail below.

4.3 Priority Habitats

- 4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies. None of the habitats within the site qualify as Priority Habitats.

4.4 Buildings, Hardstanding and Bare Ground

Description

- 4.4.1 Eight buildings are present on-site, identified as buildings B1 – B8 on Plan 6555/ECO3 which are no longer in active use. The buildings are largely brick built and of a mix of sizes and construction types, as detailed further in consideration of roosting bats within Chapter 5.

- 4.4.2 The buildings are surrounded by areas of hardstanding, including block-paved walkways and tarmac car parking bays (see Photograph 1). The hardstanding is in generally good condition with occasional cracks at the base of buildings and beside amenity bays where colonising vegetation is present. Species present include Annual Meadow-grass *Poa annua*, Rough Meadow-grass *Poa trivialis*, Barren Brome *Bromus sterilis*, Yorkshire-fog *Holcus lanatus*, Sticky Mouse-ear *Cerastium glomeratum*, Daisy *Bellis perennis*, Herb Robert *Geranium robertianum*, Speedwell *Veronica* sp., Scarlet Pimpernel *Anagallis arvensis*, Fumitory *Fumaria* sp., Black Medic *Medicago lupulina*, Nipplewort *Lapsana communis*, Redshank *Persicaria maculosa*, Yarrow *Achillea millefolium*, Sow-thistle *Sonchus* sp., Spurge *Euphorbia* sp., Willowherb *Epilobium* sp., Weld *Reseda luteola*, Broom *Genista* sp. and Teasel *Dipsacus* sp. Some small tree saplings are also beginning to colonise, including Sycamore *Acer pseudoplatanus*, Elder *Sambucus nigra*, and Butterfly Bush *Buddleja davidii*.
- 4.4.3 A thin strip (~0.5m wide) of bare ground runs adjacent to the western site boundary, which features some re-colonising vegetation including Barren Brome, Spear Thistle *Cirsium vulgare*, Bramble *Rubus fruticosus*, Spurge, Willowherb, Elder (sapling), Bristly Oxtongue *Picris echioides*, Red Clover *Trifolium pratense*, Goosefoot *Chenopodium* sp., Dove's-foot Crane's-bill *Geranium molle*, Wood Avens *Geum urbanum*, and Shining Crane's-bill *Geranium lucidum*.

Evaluation

- 4.4.4 With the exception of limited common colonising plants within gaps, the buildings and hardstanding are devoid of vegetation. The colonising vegetation associated with the hardstanding and bare ground is typical of developed sites in urban areas, comprises common and widespread species, and is of negligible ecological value. As such, they do not form important ecological features and their loss under the proposals is of negligible ecological significance. The potential for the buildings to support faunal species such as birds and bats is discussed separately in Chapter 5 below.

4.5 Amenity Grassland

- 4.5.1 A number of areas of amenity grassland are associated with the buildings and vehicle parking bays (see Photograph 2). The small areas of amenity grassland within the Fire Station complex have a sward height of approximately 10cm-40cm, with evidence of previous management in the form of mowing, albeit this appears to potentially be less frequent now the site is unoccupied. The species present within the grassland include Annual Meadow-grass, False Oat-grass *Arrhenatherum elatius*, Cock's-foot *Dactylis glomerata*, Perennial Rye-grass *Lolium perenne*, Red Fescue *Festuca rubra*, Yorkshire-fog, Rough Meadow-grass, Barren Brome, Wall Barley *Hordeum murinum*, Water Bent *Polypogon viridis*, Cat's-ear *Hypochaeris* sp., Daisy, Violet *Viola* sp., Black Medic, Wood Avens, Green Alkanet *Pentaglottis sempervirens*, Speedwell *Veronica* spp., Red Clover, White Clover *Trifolium repens*, Creeping Cinquefoil *Potentilla reptans*, Selfheal *Prunella vulgaris*, Bird's-foot-trefoil *Lotus corniculatus*, Stork's-bill *Erodium* sp., Meadow Buttercup *Ranunculus acris*, Dandelion *Taraxacum* sp., Herb-robert, Cowslip *Primula veris*, Dove's-foot Crane's-bill, Burdock *Arctium* sp., Nipplewort, Mallow *Malva* sp., Ribwort Plantain *Plantago lanceolata*, Yarrow, Curled Dock *Rumex crispus*, and Common Nettle *Urtica dioica*.
- 4.5.2 The areas of amenity grassland located at the exterior of the Fire Station complex (at the south-east, south and south-west of the site) are also likely mown, although at the time of survey had a variably sward height of approximately 10cm-30cm. Similar species were recorded, as well as Timothy *Phleum pratense*, Soft-brome *Bromus hordeaceus*, Creeping Buttercup *Ranunculus pratense*, Oxeye Daisy *Leucanthemum vulgare*, Sticky Mouse-ear,

Lesser Stitchwort *Stellaria graminea*, Buck's-horn Plantain *Plantago coronopus*, Knapweed *Centaurea* sp, Shepherd's-purse *Capsella bursa-pastoris*, Field Bindweed *Convolvulus arvensis*, Prickly Lettuce *Lactuca serriola*, and Ragwort *Senecio jacobaea*.

Evaluation

- 4.5.3 Overall, the bays of amenity grassland support a low to moderate diversity of common and widespread species. Amenity grassland is common in the local area and does not constitute an important ecological feature. The loss of amenity grassland to the proposals is therefore of negligible ecological significance, although it will nonetheless be replaced by similar areas of amenity grassland post development.

4.6 Amenity Planting

Description

- 4.6.1 Several discrete areas of low-lying amenity planting beds are present within the site, largely associated with the car parking bays across the site (see Photograph 3). The species present comprise a mix of native and non-native species including Rose-of-Sharon *Hypericum calycinum*, Autumn Olive *Elaeagnus umbellata*, Smoke Bush *Cotinus coggygria*, *Hebe* sp., Elder, Bramble, Broom, Burdock, Gorse *Ulex* sp., Wall Barley, Laurel *Prunus* sp., Rowan *Sorbus aucuparia*, Yew *Taxus baccata*, Dogwood *Cornus sanguinea*, and Common Ivy *Hedera helix*.

Evaluation

- 4.6.2 The areas of amenity planting are dominated by common and widespread shrubs, herbs and grasses, including many non-native species. The beds of amenity planting are of limited ecological value and do not form an important ecological feature, such that the loss to the proposals would be of negligible ecological significance. Nonetheless new areas of similar shrub planting will be incorporated as part of the landscape scheme.

4.7 Scattered Scrub

- 4.7.1 Several small stands of scattered scrub are present throughout the site, largely associated with the bases of the buildings and hardstanding at the north and east of the site. The species present include Elder, Hawthorn *Crataegus monogyna*, Ivy, Ash *Fraxinus excelsior* saplings, Butterfly Bush, Blackthorn *Prunus spinosa*, Dogwood, and Laurel.

Evaluation

- 4.7.2 The areas of scattered scrub are dominated by common and widespread native and non-native species and are of limited ecological value and do not constitute an important ecological feature. As such, the loss of this habitat under the proposals would be of negligible ecological significance.

4.8 Tree Line

Description

- 4.8.1 A tree line comprising a single merging to double row of Lawson' Cypress trees is present within the site located at the south-western boundary (see Photograph 4) and is described in more detail in Table 4.1 overleaf.

Table 4.1. Tree line description.

No.	H	W	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify#
TL1	10m	5-6m	<u>Lawson's Cypress (m)</u>	1	Ivy (D) Mallow, Bramble, Ash sapling.	Tree line sits on top of a bank	Mature trees spaced around 2-5m apart. A single row of trees is present to the north, merging to a double row at the south.	N

Woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) and woodland ground flora species (as listed under Schedule 2 of the Hedgerows Regulations 1997) underlined, y = young, sm = semi-mature, m = mature, pv = possible veteran, B = bank, W = wall, br = bridleway, f/p = footpath, b/w = byway, (D) = dominant species

* estimated average number of woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) in any one 30m stretch

likely to qualify – as 'important' under the wildlife and landscape criteria of the Hedgerows Regulations 1997

Evaluation

- 4.8.2 Treeline TL1 forms a continuous canopy, though is not directly connected to any other linear habitat on or off-site and is comprised of a single, non-native species. Treeline TL1 is therefore of limited ecological value and does not constitute an important ecological feature. As such, its loss under the proposals is of negligible ecological significance. Native hedgerow planting is incorporated within the landscape proposals, which will provide a biodiversity gain alongside new tree and shrub planting.

4.9 Trees

Description

- 4.9.1 A small number of young to semi-mature trees were recorded within the site, associated with the areas of amenity grassland at the west of the site. The trees within the site comprise of Ash, and Cherry *Prunus* spp.

Evaluation

- 4.9.2 The trees within the site are relatively small in size being young to semi-mature in age such that they are currently of limited ecological value and do not constitute important ecological features. It is understood that where possible the trees within the site are to be retained under the proposals and a net gain in tree cover will be provided on-site through new planting.

4.10 Habitat Evaluation Summary

- 4.10.1 On the basis of the above, none of the habitats within or adjacent to the site constitute important ecological features.

5 Faunal Use of the Site

5.1 Overview

- 5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of Badgers and bats, with the results described below.

5.2 Priority Species

- 5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies.

5.3 Bats

- 5.3.1 **Legislation.** All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 6555/2 for detailed provisions). If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.

- 5.3.2 **Background Records.** No specific records of bats from within or adjacent to the site were returned from the desktop study. Information received from the LRC returned records of Brown Long-eared Bat *Plecotus auritus*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Daubenton's Bat *Myotis daubentonii*, Noctule *Nyctalus noctula*, Leisler's Bat *Nyctalus leisleri*, Natterer's Bat *Myotis nattereri* and Serotine *Eptesicus serotinus* within 2km of the site. The closest record is for a roost of one individual Brown Long-eared Bat recorded in 2017, located 100m east of the site boundary.

Survey Results

Visual Inspection Surveys

Buildings

- 5.3.3 A detailed visual inspection was undertaken of all the buildings within the site, the results of which are detailed at Appendix 6555/3 and summarised below.
- 5.3.4 **Building B1** is a former garage/ workshop constructed of red brick and metal cladding. The building is of low suitability for roosting bats with minor crevice roosting opportunities available associated with missing mortar and warped metal cladding.
- 5.3.5 **Building B2** is a former office building of brick construction with single storey and two storey sections. The building is of moderate suitability for roosting bats with potential roosting

opportunities associated with a gap in a soffit box and crevices behind barge boards and fascia boards and metal cladding.

- 5.3.6 **Building B3** is a small disused electrical substation building of red brick construction. Potential crevice roosting opportunities are present associated with gaps behind barge boards and a broken clay vent space provides potential access into the building and cavity wall. The building is of moderate suitability for roosting bats.
- 5.3.7 **Building B4** is a single storey disused hose-store building of red brick construction. Potential roosting opportunities are present associated with crevices behind barge boards and cladding as well as internally associated with the basement area. The building is of high suitability for roosting bats and may provide hibernation opportunities in association with the basement.
- 5.3.8 **Building B5** is a former drill training tower of red brick construction. Potential crevice roosting opportunities are present associated with lifted felt and an expansion joint. Access opportunities into the cavity wall and inside the building provide further roosting opportunities. The recessed ventilation passage and sections of the drill training tower also provide some potential hibernation opportunities. Overall, the building has high suitability for roosting bats.
- 5.3.9 **Building B6** is a two-storey brick built disused office building. Potential crevice roosting opportunities are associated with lifted lead flashing and missing mortar. Further roosting opportunities may be present associated with the roof space, however no access was possible due to the presence of false ceilings throughout. The building has moderate suitability for roosting bats.
- 5.3.10 **Building B7** is a two-storey flat roofed former office building. The building has moderate suitability for roosting bats, associated with lifted lead flashing, missing mortar, raised barge boards, gaps behind concrete panels and access to the cavity wall.
- 5.3.11 **Building B8** is a three-storey former office building of brick construction with pebble-dashed concrete panels on three elevations. Gaps behind these concrete panels throughout, in addition to other crevice roosting opportunities, provide high suitability for roosting bats. The basement may also provide potential hibernation opportunities accessed via louvered vents.

Trees

- 5.3.12 None of the on-site trees provide suitable opportunities for roosting bats. A single off-site tree provides high suitability for roosting bats in the form of an existing bird box.

5.3.13 **Evaluation and Assessment of Likely Effects**

Roosting

Buildings

- 5.3.14 The on-site buildings provide low to high suitability for roosting bats and further survey work is underway to establish the presence/ absence of summer roosts, the results of which will be detailed within an addendum to this report. In addition, buildings B4, B5 and B8 have areas which provide dark, humid and cool conditions which are suitable for hibernation, such that additional winter survey work is recommended. The suitability for roosting bats is limited by the urban location, absence of on-site or adjacent foraging/commuting habitat

and high light levels. Should no bat roosts be recorded during the summer survey work, the likelihood of hibernation roosts being present is further reduced.

- 5.3.15 The results of the detailed bat survey work will inform a mitigation strategy should any roosts be present. No records of very rare bat species were returned from the desktop study in the local area, and it is unlikely such species will be present on-site. Should the presence of roosting bats be confirmed, mitigation will therefore most likely take the form of erecting bat boxes to provide replacement roosting opportunities, with safeguards implemented during the demolition works. Should a summer maternity roost or winter hibernation roost be identified then bat boxes suitable for these roost types can be installed. As such, subject to the implementation of the recommendations outlined at Chapter 6 below in relation to further survey work and lighting, individual bats will be fully safeguarded under the proposals and the favourable conservation status of bats will be maintained.

Trees

- 5.3.16 None of the trees recorded within the site contain any potential roost features and are considered of negligible suitability to support roosting bats. The off-site tree with potential to support roosting bats will be retained and protected within green space. As such, potential bat tree roosts will be unaffected by the proposals.

Foraging / Commuting

- 5.3.17 The vast majority of the site comprising buildings and hardstanding and is of negligible value to foraging / commuting bats. The site is located in an urbanised setting and is not connected to any habitats of high value for foraging and commuting bats. Nearby woodland, including Lousehill Copse LNR/LWS approximately 0.1km west of the site, and the River Thames corridor to the north are likely to provide far superior commuting and foraging opportunities for bats. The proposals are therefore highly unlikely to affect foraging and commuting bats.
- 5.3.18 Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below, along with other ecological enhancements, it is considered that the conservation status of local bat populations will be fully safeguarded under the scheme.

5.4 Badger

- 5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 6555/2 for detailed provisions), and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.
- 5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance.^{11, 12}
- 5.4.3 **Background Records.** No specific records of Badger from within or adjacent to the site were returned from the desktop study. Numerous records of Badger were returned from the 2km

¹¹ English Nature (2002) 'Badgers and Development'

¹² Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

search area surrounding the site, with the closest record located approximately 300m to the south of the site (dated 2005).

- 5.4.4 **Survey Results and Evaluation.** No Badger setts are present on-site and the site affords negligible opportunities for Badger. The site is surrounded by roads and built development, and no evidence of Badger in the form of foraging and commuting activity was recorded during the survey work undertaken. The site is therefore unlikely to be utilised by this species and development of the site is highly unlikely to adversely affect Badger.

5.5 Other Mammals

- 5.5.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.

- 5.5.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of the Priority Species Water Vole *Arvicola amphibius*, Eurasian Otter *Lutra lutra*, Hedgehog *Erinaceus europaeus* and Brown Hare *Lepus europaeus* were returned from the 2km area around the site, with the closest record relating to Hedgehog, recorded in 2020 and located approximately 0.6km to the north-east of the site.

- 5.5.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. The desktop study returned records of Water Vole, Otter and Brown Hare within the surrounding area. However, there are no suitable habitats for these species within the site or immediate surroundings, such that these species are not expected to be impacted by the proposals.

- 5.5.4 The desktop study returned background records of Hedgehog (Priority Species) within the surrounding area. The site offers limited opportunities for this species in the form of small areas of amenity grassland and planting and this habitat is unlikely to be of importance in a local context. Abundant similar opportunities are present within the local area and there is no evidence to suggest the proposals will significantly affect local populations of this species. On the contrary there are opportunities to enhance the site for Hedgehogs through providing access to gardens.

- 5.5.5 Other mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context. As such, this species is not a material planning consideration and the loss of potential opportunities for this species to the proposals is of negligible significance.

5.6 Amphibians

- 5.6.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 6555/2 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

5.6.2 Background Records. No specific records of amphibians from within or immediately adjacent to the site were returned from the desktop study. A number of records of Common Toad, Common Frog *Rana temporaria*, Palmate Newt *Lissotriton helveticus* and Smooth Newt *Lissotriton vulgaris* were returned from the search area surrounding the site, with the closest records relating to Smooth Newt and Common Frog located approximately 70m to the west of the site (dated 2011 and 2004).

5.6.3 Evaluation and Assessment of Likely Effects. No water bodies are located on-site and the terrestrial habitats within the site (namely buildings, hardstanding, amenity grassland and amenity planting) provide only very minor opportunities for amphibians. Furthermore, the site does not appear to be connected to any high-quality terrestrial or aquatic habitat with the nearest pond located 0.7km to the north of the site and the records returned from WBRC are well separated from the site by existing development and several roads. Accordingly, it is unlikely that Great Crested Newt, or other amphibians would utilise the site and it is highly unlikely this species group would be adversely affected by the proposals.

5.7 Reptiles

5.7.1 Legislation. All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6489/2 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

5.7.2 Background Records. Information returned from the desktop study includes records for Common Lizard *Zootoca vivipara*, Grass Snake *Natrix natrix* and Slow-worm *Anguis fragilis*, of which the closest record to the site is for a Slow-worm located approximately 0.3km to the west of the site dating from 2009.

5.7.3 Evaluation and Assessment of Likely Effects. The site is dominated by well-managed amenity habitats of very low value for reptiles. The site does not appear to be connected to any high-quality habitat and the reptile records returned from the data search are separated from the site by built development. Accordingly, it is unlikely that any reptile populations would be resident on the site and this species group is not expected to be adversely impacted by the proposals.

5.8 Birds

5.8.1 Legislation. All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 6555/2 for detailed provisions).

5.8.2 Conservation Status. The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status¹³. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are

¹³ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man' British Birds 108, pp.708-746

also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.

5.8.3 Background Records. Information from the data search included records for several bird species in the 2km search area surrounding the site, including Priority Species and Red Listed species such as Skylark *Alauda arvensis*, Bullfinch *Pyrrhula pyrrhula*, Cuckoo *Cuculus canorus*, Grasshopper Warbler *Locustella naevia*, House Sparrow *Passer domesticus*, Song Thrush *Turdus philomelos*, Spotted Flycatcher *Muscicapa striata*, Starling *Sturnus vulgaris* and Yellow Wagtail *Motacilla flava*. None of the records originate from within the site itself.

5.8.4 Survey Results and Evaluation. Several species of bird were observed within the site during the Phase 1 survey, including Wood Pigeon *Columba palumbus*, Magpie *Pica pica*, Carrion Crow *Corvus corone*, Starling, Black-headed Gull *Chroicocephalus ridibundus* and Red Kite *Milvus milvus* overhead. The site contains small amounts of vegetation suitable for nesting birds, such as amenity planting, trees and scrub. In addition, some of the buildings provide some nesting opportunities and Pigeons were recorded nesting within building B5. However, the site is highly unlikely to support a high abundance or diversity of bird species.

5.8.5 The proposals will result in the loss of limited potential nesting habitat, as discussed above, which could potentially affect nesting birds that may be present at the time of works. Accordingly, a number of safeguards in respect of nesting birds are proposed, as detailed in Chapter 6 below. In the long-term, the proposals offer the opportunity to provide new nesting opportunities for birds as described in Chapter 6 below.

5.9 Invertebrates

5.9.1 Legislation. A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6555/2 for detailed provisions. A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

5.9.2 Background Records. Information from the data search included records for several Priority Species invertebrates within the 2km search area surrounding the site, including Stag Beetle *Lucanus cervus*, Cinnabar *Tyria hacobaeae*, Garden Tiger *Artica caja*, Small Heath *Coenonympha pamphilus*, Grey Dagger *Acronicta psi* and White-letter Hairstreak *Satyrrium w-album*. The closest specific record was for Stag Beetle located approximately 100m to the south-east of the site and dated from 2015.

5.9.3 Survey Results and Evaluation. No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by buildings, hardstanding and amenity grassland and planting, which are likely to support only a limited diversity of invertebrates. No dead wood habitat suitable for Stag Beetle larvae is present on-site. The site contains few micro-habitats that would typically indicate elevated potential for invertebrates¹⁴, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable

¹⁴ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

invertebrate populations, and the site is highly unlikely to support an important invertebrate assemblage.

5.10 Summary

5.10.1 On the basis of the above, a summary of the evaluation of fauna is provided below:

Table 5.1. Evaluation summary of fauna forming important ecological features.

Species / Group	Supported by or associated with the site	Level of Importance
Bats – Roosting	Potential habitat in the form of buildings	To be confirmed following bat surveys
Birds	Potential nesting habitat present on site	Site

5.10.2 Other fauna supported by the site is likely to include non-priority species of mammals and invertebrates. However, these species do not form important ecological features.

6 Mitigation Measures and Biodiversity Net Gains

6.1 Mitigation

- 6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, it is proposed that the following mitigation measures (**MM1 – MM3**) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2019).

Trees

- 6.1.2 **MM1 – Tree Protection.** All trees to be retained within and adjacent to the proposed development shall be protected during construction in line with standard arboriculturalist best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This will involve the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees.

Bats

- 6.1.3 **MM2 – Further Survey & Mitigation.** In accordance with best practice, further survey work of the on-site buildings with suitability to support roosting bats is scheduled for August/September 2022, the results of which will be detailed within an addendum to this report. It is also recommended that surveys to determine the presence/ absence of hibernation roosts take place in winter 2022/2023. The results of this survey work will be presented within an addendum report and will be used to inform a proportionate mitigation strategy.
- 6.1.4 Should the further survey work confirm the absence of roosting bats, then demolition of buildings can be undertaken without a European Protected Species Licence.
- 6.1.5 Should the further survey work confirm the presence of roosting bats, then further bat roost characterisation surveys may be required and subject to planning, a European Protected Species Licence application be submitted to Natural England to ensure bats are fully safeguarded prior to the demolition works occurring. The licenced mitigation strategy would likely involve the provision of replacement roosting opportunities (e.g. erecting a number of bat boxes on a proportion of the new build), with demolition works of relevant buildings undertaken under an ecological watching brief. The precise details of the replacement roost provision would be agreed as part of the Natural England Development Licence process.

Nesting Birds

- 6.1.6 **MM3 – Timing of Works.** To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation or buildings should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of vegetation clearance.

6.2 Biodiversity Net Gains

- 6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the local Biodiversity Action Plan (BAP). The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (**EE1 – EE5**), the opportunity exists for the proposals to deliver a number of biodiversity net gains at the site.

Habitat Creation

- 6.2.2 **EE1 – New Planting.** The landscape proposals include new shrub, hedgerow and tree planting which will include native species such as Field Maple, Blackthorn, Hawthorn, Hazel *Corylus avellana* and Elder. Where non-native species are proposed, these will include species of value to wildlife, such as varieties listed on the RHS' 'Plants for Pollinators' database, providing a nectar source for bees and other pollinating insects.

Bats

- 6.2.3 **EE2 – Bat Boxes.** A number of bat boxes will be incorporated within the proposed development. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Soprano Pipistrelle and Common Pipistrelle. Bat boxes will be incorporated into a proportion of the new build. The precise number and locations of boxes / roost features should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Hedgehog

- 6.2.4 **EE3 – Hedgehog Fence Cut-outs.** It is recommended that a number of Hedgehog cut-outs be provided in fences within the site to maximise commuting and foraging opportunities and to ensure connectivity is maintained for this species.
- 6.2.5 **EE4 – Hedgehog Nest Domes.** It is recommended that Hedgehog nest domes be installed within the vegetation at the south-west of the site to provide suitable nesting and hibernation sites for this species. The Hedgehog nest domes should be positioned out of direct sunlight, in areas of dense vegetation.

Birds

- 6.2.6 **EE5 – Bird Boxes.** A number of bird nesting boxes are to be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. Boxes integrated into the new buildings would provide opportunities for Priority Species in the local area such as Starling and House Sparrow. The precise number and locations of boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

7 Conclusions

- 7.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys.
- 7.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the site, and none of the designations within the surrounding area are likely to be adversely affected by the proposals.
- 7.3 The Phase 1 habitat survey has established that the site is comprised of habitats not considered to be of ecological importance. New habitat creation has been proposed to offset losses, in conjunction with the landscape proposals.
- 7.4 The habitats within the site generally offer limited opportunities for protected species although it is likely birds will make use of habitats within the site for nesting and the buildings provide suitable features for roosting bats. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with compensatory measures proposed, where appropriate, in order to maintain the conservation status of local populations.
- 7.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide a number of biodiversity net gains as part of the proposals.

Plan 6555/ECO1:

Site Location



Key:

 Site Location

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Former Dee Road Fire Station,
Dee Road, Reading
Site Location

6555/ECO1

A/AM

July 2022

PROJECT

TITLE

DRAWING NO.

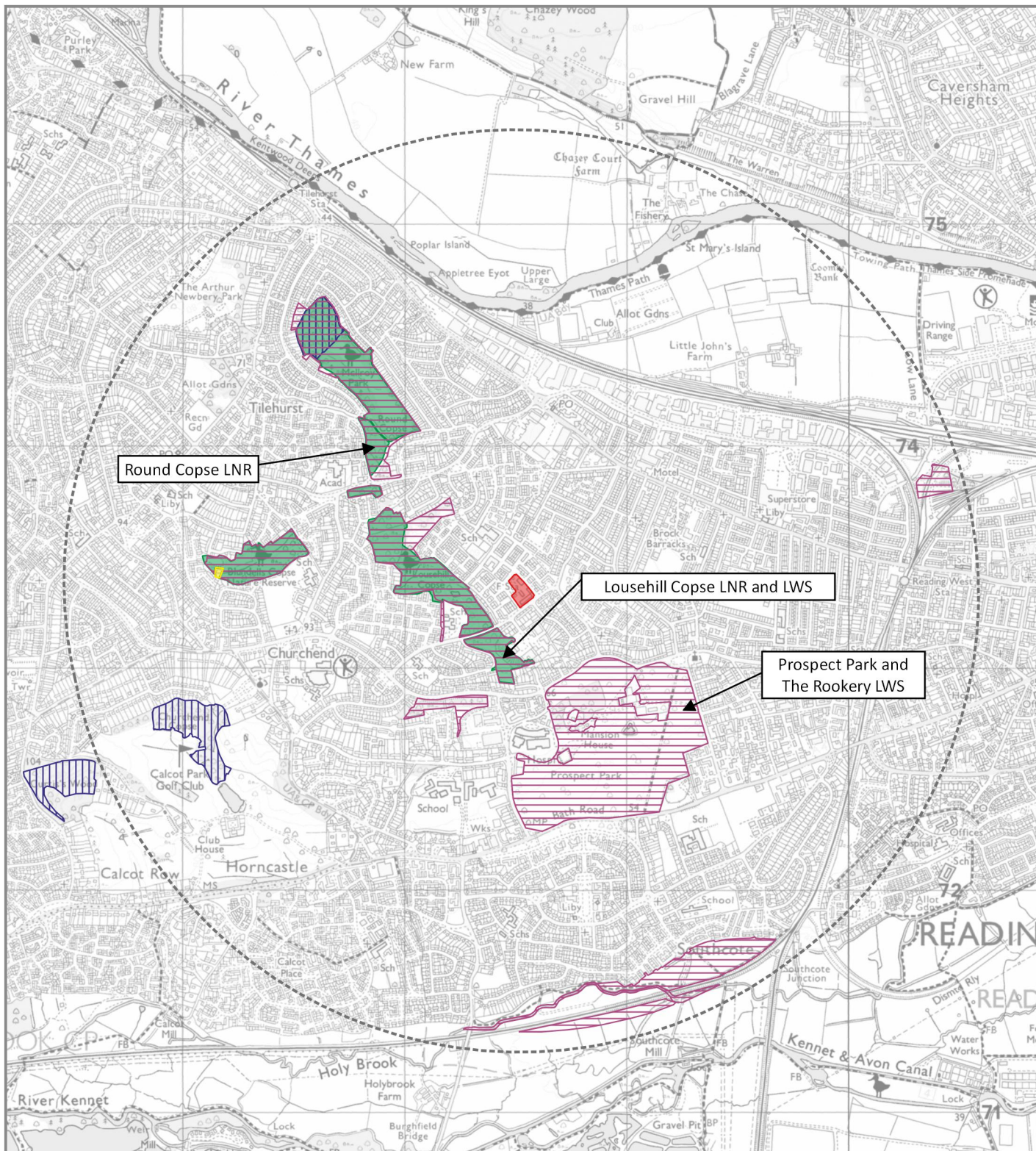
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DATE



Plan 6555/ECO2:

Ecological Designations



Key:

- Site Location
- Local Nature Reserve (LNR)
- Ancient Semi-natural Woodland (ASW)
- Local Wildlife Site (LWS)
- Proposed Local Wildlife Site Extension (pLWSE)
- Local Records Centre 2km Search Area

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**Former Dee Road Fire Station,
Dee Road, Reading
Ecological Designations**

6555/ECO2

A/AM

July 2022

PROJECT

TITLE

DRAWING NO.

REV

DATE



Plan 6555/ECO3:

Habitats and Ecological Features



- Key:
- Site Boundary
 - Hardstanding
 - Building
 - Amenity Planting
 - Amenity Grassland
 - Tree Line
 - Vacant/Derelict Land/ Bareground
 - Scattered Scrub
 - Tree
 - Off-site Tree with High Suitability for Roosting Bats

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Road, Reading
Habitats and Ecological Features

PROJECT

TITLE

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6555/ECO3

B/AS

July 2022

Photographs

Photograph 1 : Buildings and Hardstanding



Photograph 2 : Amenity Grassland



Photograph 3 : Amenity Planting



Photograph 4 : Treeline



Appendix 6555/1:

Evaluation Methodology

Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)¹.

Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
 - Naturalness;
 - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
 - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
 - Endemic species or locally distinct sub-populations of a species;
 - Habitat diversity;
 - Habitat connectivity and/or synergistic associations;
 - Habitats and species in decline;
 - Rich assemblages of plants and animals;
 - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
 - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
 - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

¹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
 - International (European);
 - National;
 - Regional;
 - County;
 - District;
 - Local (e.g. Parish or Neighbourhood);
 - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

Appendix 6555/2:

Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself¹. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
 - Wildlife and Countryside Act 1981 (as amended)
 - Protection of Badgers Act 1992
 - Hedgerows Regulations 1997
 - Countryside and Rights of Way (CROW) Act for England and Wales 2000
 - Natural Environment and Rural Communities Act 2006
 - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
 - Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
 - Take or destroy an egg of any wild bird.

* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
 - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
 - Disturb dependent young of such a bird.

¹ <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
 - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
 - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
 - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
 - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
 - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
 - Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
 - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
15. **Hedgerows Regulations 1997.** ‘Important’ hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify ‘important’ hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CROW) Act for England and Wales 2000.** The CROW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

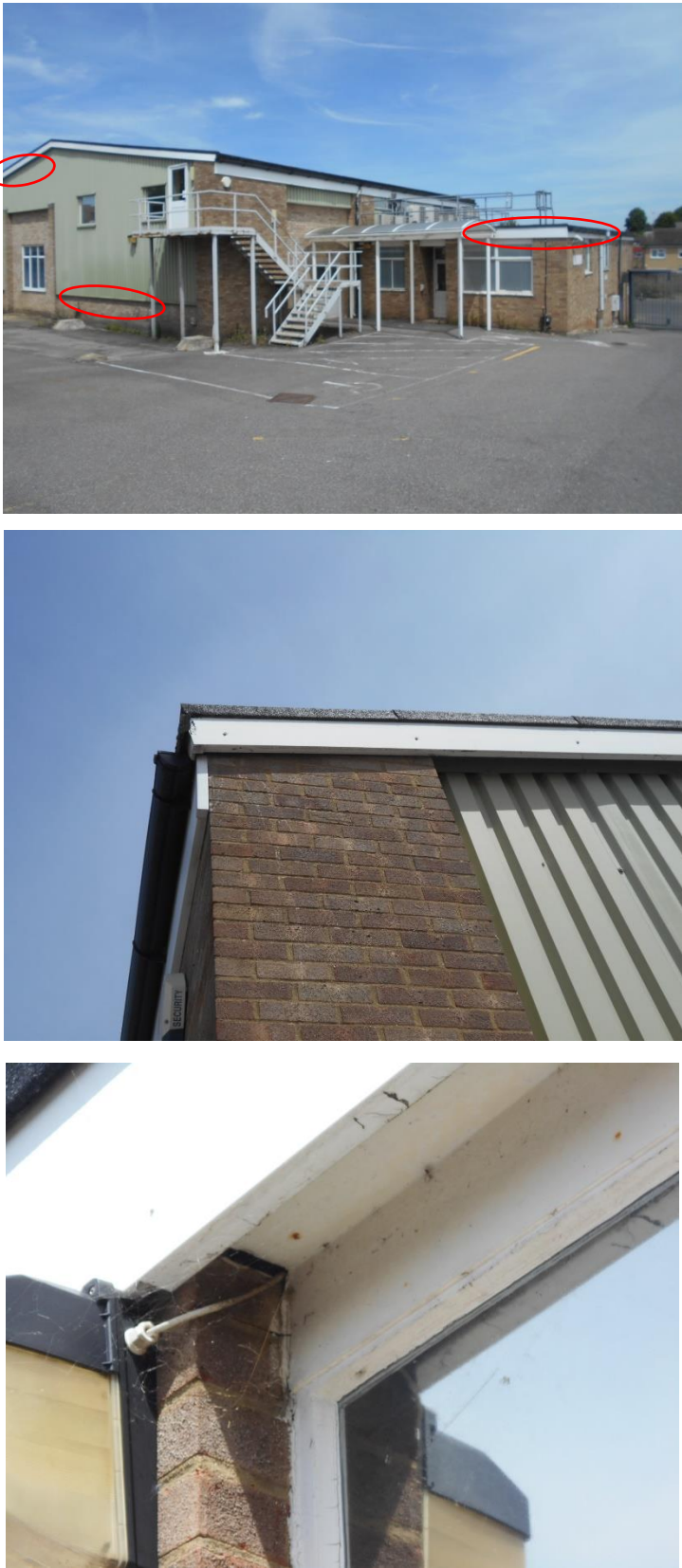
17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)² classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
 - Deliberately capture, injure or kill any wild animal of a European Protected Species;
 - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
 - Deliberately take or destroy the eggs of such an animal;
 - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

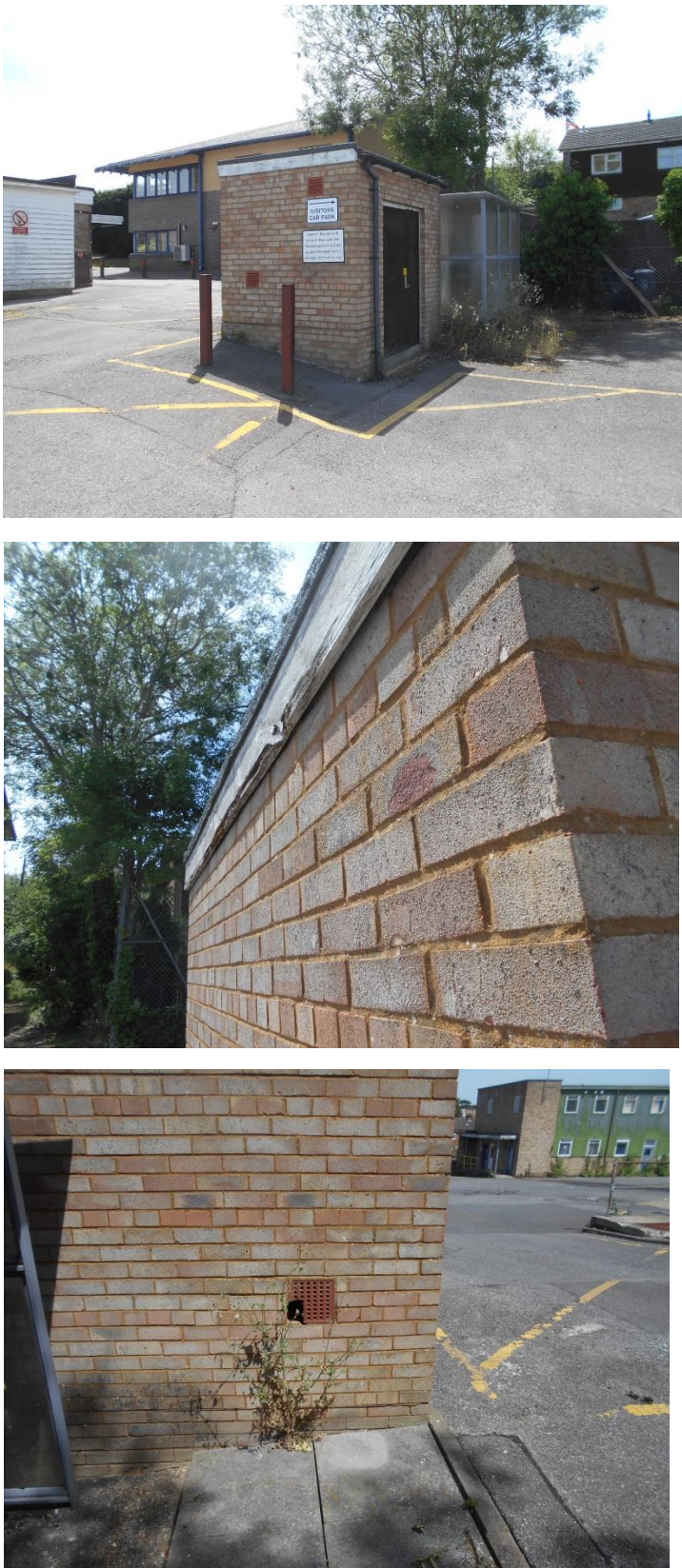
² Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Appendix 6555/3:

Building Inspection Survey Results

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B1	  	Building B1 is a single storey, square-shaped former workshop / garage of steel frame and corrugated metal sheet construction on a red-brick base. There is a pitched roof of corrugated (likely asbestos cement) roof panels. The building also features metal rolling shutter doors on the southern elevation and is generally in a moderate state of repair. The corrugated asbestos cement roof panels are lined with an unknown synthetic panelled material internally. No obvious gaps were recorded in association with the ceiling which may function as potential roosting opportunities. No loft void is present and the roof, including the synthetic panelling with metal framing is generally in good condition and well-sealed, and is unlikely to have suitable thermal properties for roosting bats or maintain a constant internal temperature.	Potential access to the inside of the building is provided via small gaps at the corners of the rolling shutter doors, and at the edges to the corrugated roof panels, however internally the building provides very limited opportunities for roosting bats. Potential access into the building / cavity wall via two servicing holes in the lower brickwork on the north-eastern elevation. Potential crevice dwelling opportunities in the lower brickwork of the south-west elevation of the building where there is some missing mortar. Potential access / crevice dwelling opportunity in the form of warped / dented corrugated metal cladding on the northern elevation, at the interface with the brick wall. No evidence of roosting bats was observed.	Low suitability for roosting bats.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B2		Building B2 is a one - two storey, irregularly shaped former office building of a red-brick and steel-frame construction, featuring corrugated metal cladding in parts and a shallow pitched roof clad with bitumen felt. Building B2 has adjoining single storey, flat roof sections at the north and south of the building, which are also clad with bitumen felt. The building has barge boards, fascia boards and soffit boxes in various locations. Overall, building B2 is in a moderate state of repair. Internally, building B2 does not contain any self-contained loft-voids, and has a large false ceiling with a gap straight to the unbacked roof. The windows and doors, which are asbestos framed, are well sealed and the presence of large skylights meant that the internal spaces were well-lit.	Potential crevice dwelling opportunities in the form of small gaps at the edges of warped / raised barge boarding and fascia boards, largely associated with the single storey flat roof sections at the north and south of building. Potential roosting opportunity in association with a soffit box where a small gap is present at the top of the brickwork at the north-west corner of the flat roof section, located at the north of the building. Potential crevice dwelling feature comprising a section of dented / warped corrugated metal cladding at the interface with the brick wall on the south-west elevation, sited approximately 1m from the ground. No evidence of roosting bats was observed.	Moderate suitability for roosting bats.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B3		Building B3 forms a small, single storey, square-shaped and disused electrical substation of red-brick construction which supports a flat roof clad with bitumen felt. Barge boards are present on all elevations and the building is likely to feature a cavity wall. No loft void is present and the roof is plaster-boarded internally. Overall, building B3 is in a moderate state of repair.	Potential crevice roosting opportunities in the form of small gaps at the edges and corners of warped / raised barge boarding at all elevation of the building. Potential access into the building / cavity wall via a single broken, un-backed, clay vent face on the western elevation of the building which would provide access to a larger cavity space. No evidence of roosting bats was observed.	Moderate suitability for roosting bats.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B4	    	Building B4 comprises a single storey, square-shaped, and disused hose-store building of red-brick construction and features a bitumen clad flat roof with plastic PVC barge boarding on all elevations, and partial PVC cladding on the north elevation. The building has cavity walls. Building B4 also features a wooden framed, open-structured shelter and partial PVC cladding at the north elevation. Windows and doors were noted be left open such that there is a discernible draft and natural light ingress. No loft void is present in association with the roof, which internally is formed of smooth surfaced interlocking concrete blocks. There is also a recessed concrete drainage chamber within the building. Overall, building B4 is in a poor to moderate state of repair.	Potential crevice dwelling opportunities present in the form of small gaps behind warped / raised barge boarding on all elevations of the building. Potential crevice dwelling opportunity formed of a single section of chipped PVC cladding on the northern elevation, providing access to the brick wall behind. Potential crevice dwelling opportunities formed of gaps at the interface of the end purlin and plastic PVC barge board associated with the timber-framed shelter on the northern elevation of the building. Potential internal access via a broken window and open doors on the northern elevation, as well as an open vent flue on the roof and a missing vent face on the southern elevation. Potential for hibernation opportunities in the form of a partially open cover within the building, which provides access to a recessed drainage chamber which forms a small basement. The conditions within this chamber are cool, humid and appear to provide suitable thermal properties by which a suitable temperature for hibernation could be maintained. No evidence of roosting bats was recorded.	High suitability for roosting bats, including some hibernation potential within the recessed drainage chamber.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B5	   	Located centrally within the site, building B5 is a former drill training tower of red-brick and concrete re-enforced steel beam construction. The tower is of five and half storeys, and adjoins a single storey flat-roof section, which is partially clad with bitumen felt. Overall, building B5 is in a moderate state of repair. Internally, the building comprises minor entry ways and open rooms with steel ladder access to the drill tower, as well as a several ground-floor rooms, one of which forms a plant room with a recessed (below ground) ventilation passage which heads south from building B5 towards B8. The enclosed sections of the drill training tower (the chambered western (W) section from ground floor to first storey, and eastern (E) section, ground floor to 5th storey) were recorded to be dark and humid internally. The recessed (below ground) ventilation passage is also dark and humid internally and may link to the basement of B8, albeit access was limited due to the potential presence of asbestos.	Potential access into the building via open doors and windows on the southern, eastern, and western elevations, as well as via the open sections of the western tower. Potential access into the building / cavity wall via servicing holes on all frontages. Potential crevice dwelling opportunities in the form of lifted bitumen felt associated with the south-western section of the flat roof. Potential crevice dwelling opportunities in the form of an expansion joint between the drill tower and the single storey section on the western elevation. Potential access to ground floor, eastern chambered section of drill tower via widely spaced louvered vent above access door at the northern elevation. Potential roosting opportunities associated with the recessed ventilation passage, and both the eastern and western chambered sections of the drill training tower. The conditions within these features are likely to provide suitable thermal properties by which a suitable temperature for hibernation could be maintained. No evidence of roosting bats was observed.	High suitability for roosting bats, including hibernation potential within the recessed ventilation passage, as well as the eastern and western chambers of the drill tower.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B6		Building B6 is a two storey, irregular-shaped, brick-built former office building, with a shallow pitched and hipped roof featuring synthetic roof tiles of an unknown material, and overhanging eaves with exposed rafter tails. Building B6 is likely to house a self-contained loft-void within the pitched and hipped sections of the roof, albeit due to false ceilings throughout, access could not be gained. Internally, the buildings comprise a number open, interlinking hallways and rooms, for which doors and windows were observed to be tightly shut, and largely well-lit by natural light ingress. Overall, building B6 is a moderate state of repair.	Potential access into the inaccessible loft void(s) via gaps at the overhanging roof eaves between the upper brick wall coursing and the rafter tails. Crevice dwelling opportunities formed of gaps at discrete areas of lifted lead-flashing above the metal framed windows. Crevice dwelling opportunities on all frontages associated with missing mortar associated with the brickwork and weepholes. No evidence of roosting bats observed.	Moderate suitability for roosting bats.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B7		Building B7 is a two storey, rectangular, red-brick built former office building featuring corrugated metal cladding and an adjoining single-storey wooden-shelter at the north-west. Building B7 supports a bitumen clad flat roof throughout. Internally, the first-floor ceiling is formed of interlocking concrete panels. A small void between the false-ceiling and unbacked roof was present. Overall considered to be in a moderate state of repair.	Potential access and cavity dwelling opportunities formed of louvered vents on western elevation with associated lifted lead flashing, as well as missing mortar at the apex of the brick-wall to flat roof interface at the south-west corner. Potential access in the form of six open windows on the western elevation and a boarded, broken window on the southern elevation associated with the stair well. Potential access into wall cavity provided by missing mortar. Potential crevice dwelling opportunity associated with a raised barge board associated with the metal framed, timber shelter (porch) on the northern elevation. Potential internal crevice dwelling opportunities in the form of linear crevices between interlocking concrete panels on the ground floor ceiling. No evidence of roosting bats observed.	Moderate suitability for roosting bats.

Building	Photograph(s)	Description	Features Providing Suitability for Roosting Bats / Evidence of Bats	Assessment of Bat Roosting Suitability
B8		Building B8 forms a large three storey, rectangular, former office building at the north and two storey fire-engine vehicle garage / depot at the south, both of which support flat rooves. Building B8 is of a red-brick construction and is clad with interlocking pebble-dashed concrete panels on the northern, southern, and eastern elevations. The north of the two-storey section features a vehicle shelter on a steel-frame with likely corrugated asbestos panels and metal rolling shutter doors. The garage also features some metal corrugated cladding. Atop the third storey section is a small, square shaped annexe for access to the roof, which is clad in corrugated metal sheeting, and capped with lead. Internal access was not gained due to the presence of asbestos. Overall, building B8 is in a moderate state of repair.	Potential access to the inside of the garage section of the building via small gaps at the corners of the rolling shutter doors. Potential internal access provided by several windows / doors being left open on the northern elevation. Potential crevice dwelling opportunities in the form of gaps (~1-2cm) at the base of each of the interlocking pebble-dashed concrete panels on all stories of the northern, eastern, and southern elevations. Potential access and crevice dwelling opportunities associated with the 3rd storey annexe, whereby sections of the lead capping are lifted/warped. Potential crevice dwelling opportunities in the form of warped/lifted wood panelling at the central southern elevation associated with the staircase. Potential for hibernation opportunities in the form of a basement with louvered vents (highlighted left). The basement itself was not accessed due to the presence of asbestos associated with building B8. The conditions within this chamber are cool, humid and appear to provide suitable thermal properties by which a suitable temperature for hibernation could be maintained. No evidence of roosting bats observed externally, however internal inspection not possible.	High suitability for roosting bats, including hibernation potential within the basement.

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The logo for Aspect Ecology Ltd features the word "aspect" in a white, lowercase, sans-serif font. A thin, white, diagonal line is positioned above the "t", extending from the top of the letter and pointing towards the right.

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