LIZARD

Landscape Design and Ecology

UPDATED ECOLOGICAL IMPACT ASSESSMENT

Eastmere Stables, Eastergate

On Behalf of: Mr M. Langridge

Planning Issue

Client:	Mr M. Langridge			
Project:	Eastmere Stables, Eastergate			
Reference:	LLD2426-ECO-REP-001-01-EclA			
Revision:	**Date:**	**Author**	**Proof**	**Approved**
00	26/05/23	Catherine O'Reilly MCIEEM	Hayley Swann	George Sayer MCIEEM

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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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Landscape Design and Ecology
The Old Bank, 34 South Street, Ferring, Worthing, West Sussex, BN12 5HH
[redacted] W. lizardlandscapeecology.com

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[redacted] W. lizardlandscapeecology.com

SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Mr M. Langridge to undertake an Ecological Impact Assessment of the proposed development of Eastmere Stables, Eastergate (*Grid Reference: SU 95168 06114 – hereafter referred to as 'the site'*). An updated Preliminary Ecological Appraisal of the site was undertaken on 23rd of May 2023. An assessment of the ecological impact of the proposals was then undertaken using this baseline data.

The main body of the site is dominated by modified grassland, hard standing and buildings; habitats of very low ecological value. Existing vegetation to the western boundary shall be retained within the scheme. Compensation for the loss of areas of modified grassland shall be provided through the creation of grassland areas and native tree and shrub planting. The loss of linear features such as short sections of ornamental hedgerow shall be compensated through the provision of new areas of native, species-rich hedge planting within the site.

The proposed construction zone is located within the wider conservation zone of Cocking and Singleton Tunnels SAC. A series of avoidance measures have been proposed which shall ensure that development has no adverse effect upon the conservation features of the SAC, therefore impacts upon this designation would be de minimis and no further assessment under The Habitats Regulations 2017 is required.

The site offers some suitable habitat for invertebrates and breeding birds, as well as supporting a low population of slow worm. Avoidance and mitigation measures have been built into the design of the scheme in accordance with the mitigation hierarchy and BS42020: 2013.

Once avoidance, mitigation and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant.**

Proposed ecological enhancements shall result in creation of a variety of habitats on site and Biodiversity Net Gain in accordance with local and national planning policy.

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned by Mr M. Langridge to undertake an Ecological Impact Assessment of the proposed development of Eastmere Stables, Eastergate (*Grid Reference: SU 95168 06114– hereafter referred to as 'the site'*).

1.2 The scope of this assessment has been determined with consideration of best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) and the Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013).

1.3 An updated Preliminary Ecological Appraisal of the site was undertaken on 23rd of May 2023. No further phase 2 protected species surveys were required, with the results of the PEA and previous surveys undertaken in 2021 used as the baseline information within this report.

1.4 A summary of the results of this survey, potential impacts of the proposals, and details of avoidance, mitigation and compensation measures have been detailed within this report. Residual impacts are then discussed once all mitigation and compensation measures have been taken into account.

Site Information

1.5 The site measures approximately 0.8 hectares (ha). The site is an irregular shaped plot, located on the northern side of Eastergate Lane. The plot comprises the south-western part of a lozenge-shaped area of horse paddocks and gallops, as well as hard surfaced access and storage areas, and a range of buildings. The site is bordered by further paddocks to the north, and access track to the east, Eastergate Lane to the south and residential dwellings to the west.

Surrounding Landscape

1.6 The wider area is predominantly rural with varying land uses including arable and recreational. The surrounding fields consist of a mixture of tree and hedge bound fields. The site is found to the north-east of the village of Eastergate and directly to the south of the village of Fontwell. The site is surrounded by further equestrian land to the east and north-west; Eastergate Lane to the south and a mixed-use commercial centre to the west.

Development Proposals

1.7 Development proposals for the site include the creation of 4no. self-build plots, with associated gardens and access. Access would come via the existing access to the south.

Report Aims

1.8 The aim of the baseline surveys and Ecological Impact Assessment has been:

- *Describe baseline conditions at the site;*
- *Determine the importance of features which may be impacted by the scheme;*
- *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
- *To identify any residual impacts;*
- *To provide details of enhancements to be incorporated into the scheme;*
- *Provide sufficient information to determine whether the project accords with relevant nature conservation policies and legislation, and where appropriate, to allow conditions or obligations to be proposed by the relevant authority.*

2.0 PLANNING POLICY AND LEGISLATION

Legislation

2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EcIA includes:

- *The Conservation of Habitats and Species Regulations 2017;*
- *The Wildlife and Countryside Act 1981 (as amended);*
- *The Natural Environment and Rural Communities (NERC) Act 2006; and*
- *The Environment Act 2021*

2.2 This above legislation has been addressed, as appropriate, in the production of this report.

National Planning Policy

2.3 The National Planning Policy Framework (*NPPF*) 2021 sets out the government planning policies for England and how they should be applied. '*Chapter 15: Conserving and Enhancing the Natural Environment*' states that development should be '*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*.'

2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

2.5 Relevant policies from the Arun District adopted Plan (adopted 2018) include:
Policy H SP2 states development must:

- *Protect, conserve or enhance the natural environment, landscapes and biodiversity;*

Policy ENV SP1 states:

- *Arun District Council will encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment*

through the development process and particularly through policies for the protection of both designated and non-designated sites.

Policy ENV DM1 Designated Sites of biodiversity or geological importance states:

- *a. Proposed development likely to have an adverse effect on land with the designated features of any Site of Biodiversity or Geological Importance as listed in Tables 17.1 - 17.7 or any subsequently designated sites (either individually or in combination with other developments), will not normally be permitted. Consideration will be given to the exact designated features present on the site, their scarcity/rarity and recognition of the protection offered by their existing status. Development on wildlife sites with the highest value will only be permitted exceptionally where the following can be demonstrated:*
  i. There is no alternative solution (which shall be adequately demonstrated by the developer).
  ii. There are reasons of public health or public safety or Adoption Arun Local Plan 2011-2031 (July 2018) Arun District Council 209 17 Natural Environment
  iii. There are benefits of primary importance to the environment or iv. There are imperative reasons of overriding public interest.
  Notwithstanding the above however, the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.
- *b. In determining any planning application affecting Sites of Biodiversity or Geological Importance the Council will ensure that the intrinsic natural features of particular interest are safeguarded or enhanced having regard to;*
  i. The European, National or Local status and designation of the site;
  ii. The nature and quality of the site's features, including its rarity value;
  iii. The extent of any adverse impacts on the notified features of interest;
  iv. The need for compensatory measures in order to re-create remaining features of habitats on or off the site. c. Where appropriate the Council will ensure the effective management of designated sites through the

imposition of planning conditions or Section 106 agreements as appropriate.

Policy ENV DM4 Protection of trees states that:

- *Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development:*
- *a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or*
- *b. Would enhance the survival and growth prospects of other protected trees;*
- *c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.*

- *Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme. Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission*

given. Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

- *d. Land and tree surveys*
- *e. A tree constraints plan*
- *f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement*
- *These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.*

Policy ENV DM5 Development and biodiversity states that:

- *Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement. Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person. All developments shall have regard to Natural England's standing advice for protected species.*

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 The Multi-Agency Geographic Information for the Countryside (*MAGIC*) was consulted for all designated sites within a practicable zone of influence of the site. This included Local Nature Reserves (LNRs), National Nature reserves (NNR) and Sites of Special Scientific Interest (SSSIs) within a 2.0km radius of the site, and international statutory designated sites including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsars (Wetlands of International Importance) within a 10km radius of the site.

3.1.2 MAGIC was also used to provide information on all Priority Habitats within a 2.0km radius of the site, and all records of granted European Protected Species Mitigation licences within a 1.0km radius of the site.

3.1.3 Due to the small scale of the proposals and low interest of the habitats on-site, a full data search from SxBRC was not considered proportionate. This is in accordance with current CIEEM guidance (2020).

3.1.4 In accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001) a desktop search was undertaken to identify ponds within 500m and 250m of the site, which may have the potential to support breeding great crested newts (GCN) *Triturus cristatus,* using Ordnance Survey mapping, the *MAGIC* database and aerial photography.

3.2 Preliminary Ecological Appraisal

3.2.1 An updated field survey was undertaken on 23rd of May 2023 by a Suitably Qualified Ecologist (Catherine O'Reilly, MCIEEM, 9 years professional experience). Weather conditions were mild (c.15°C), with a moderate south-westerly wind (Beaufort Scale 3), 20% cloud cover and dry.

3.2.2 The field survey comprised a walkover inspection of the site and immediately adjacent land and boundaries features, in which ecological features were noted and mapped in accordance with principles of the UKHabs-Professional Classification System (Butcher *et al*, 2020). A minimum mapping unit of 25m^2 was used and habitats were identified to at least level 4 wherever practicable.

3.2.3 A list of plant species was compiled, together with an estimate of abundance (*Table No. 05*). In addition, Target notes were used where necessary to provide supplementary information on features which were particularly interesting or significant to specific construction proposals, or too small to map.

3.2.4 The survey methodology was extended to provide more detail in relation to the sites potential to support rare or protected fauna, as described by the *Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b)*. The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers' Manual (Gent and Gibson, 2003)* and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collin (ed.), 2016*).

3.3 Preliminary Bat Roost Assessment

3.3.1 An updated Preliminary Bat Roost Assessment was undertaken on 23rd of May 2023 by Catherine O'Reilly (2016-20460-CLS-CLS) who undertook an internal and external assessment of all buildings on site and ground level assessment of the trees within and adjacent to the site. The bat surveyor assessed the trees visually and searched for direct evidence of bats evidence, such as;

- *Grease Marks;*
- *Urine Stains;*
- *Bat Droppings;*
- *Feeding Remains;*
- *Dead or Live Bats.*

3.3.2 Trees were visually identified from the ground, using binoculars where necessary, for any features that could be used by bats such as:

- *Woodpecker Holes;*
- *Knot Holes;*
- *Tear-outs;*
- *Flush Cuts;*
- *Double Leaders.*

3.3.3 Potential roost features which could provide access into the building or provide roosting space in their own right were identified from the ground, such as:

- *Lifted or slipped roof or hanging tiles*
- *Raised flashing*
- *Holes in soffits or gaps beneath fascias*
- *Cracks in brickwork*
- *Gaps around window frames or lintels.*

3.3.4 Once features had been assessed the trees were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016) (shown below).*

Table No. 01 – Bat Roost Suitability Guidelines (BCT, 2016)

Category	Buildings	Trees
`Negligible`	No suitable features identified.	No suitable features identified.
`Low`	A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats.	Tree of sufficient size / age to support bat roost features; but with none identified from the ground.
`Moderate`	A building with features which, could be used regularly by a small number of bats.	Tree with features which, may support a bat roost of low conservation status.
`High`	A building with features suitable for use by a large number of bats on a regular basis.	A tree with several potential bat roost sites that are suitable for use by a large number of bats.

3.4 Ecological Impact Assessment

3.4.1 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

3.4.2 The CIEEM guidelines (2018) state that ecological features should be considered within a 'defined geographical context'. The geographical frame of reference used to determine ecological importance in this assessment is detailed below:

- *International and European;*
- *National;*
- *Regional;*
- *County;*
- *District;*
- *Local;*
- *Site Level;*
- *Negligible.*

3.4.3 Based upon CIEEM guidance, value was determined with reference to the following factors:

- *Its inclusion as a Designated Site or other protected area;*
- *The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);*
- *The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);*
- *The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;*

3.4.4 The ecological impacts resulting from the proposals were then described according to a defined set of characteristics as defined within *'Guidelines for Ecological Impact Assessment in the UK and Ireland'* (*CIEEM, 2018*). When describing impacts the assessment refers to characteristics such as the extent; magnitude; duration; frequency; and, reversibility of the impact in order to provide justification for any conclusions about the nature and likelihood of the impact described.

3.4.5 Where initial impacts have been identified as significant, avoidance, mitigation and compensation measures have been proposed to avoid, prevent or offset such effects. This assessment then considers residual impacts (*once all mitigation has been taken into account*), with any significant effects highlighted. A significant effect is defined as "*an effect which either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general*". Enhancement has been proposed to ensure that the development represents a net gain in biodiversity in accordance with National Policy.

3.5 Constraints and Limitations

3.5.1 Due to the field survey consisting of only one site visit in late May, certain species, particularly some of the early flowering plants, may not have been visible and hence overlooked. These are accepted constraints associated with the standard Survey Methodology.

3.5.2 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Designated Sites

Statutory Protected Sites

4.1.1 The following statutory protected sites are noted within the likely zone of influence of the proposed site:

Table No. 02 – Statutory Protected Sites

Site	Description	Location
Duncton to Bignor Escarpment SAC	*An example of mature beech Fagus sylvatica woodland located on the steep scarp face of the South Downs. The site has developed over chalk which is overlain in places by a clay-withflints capping. Beech dominates in a mosaic with ash Fraxinus excelsior woodland, scrub and grassland. Much of the beech woodland is high forest but with some old pollards. Rare plants present include white helleborine Cephalanthera damasonium, yellow bird's nest Monotropa hypopitys, green hellebore Helleborus viridis and limestone fern Gymnopcarpium robertium. The woods also have a rich mollusc fauna.*	*6.6 km NE*
Singleton and Cocking tunnels SAC	*One of the three South Downs "Bat SACs". Disused railway tunnels in use by large numbers of bats both for hibernation and summer roosting.*	*11.1 km NW*
Solent European Sites (Chichester and Langstone Harbours RAMSAR, SPA, Solent Maritime SAC, Solent and Dorset Coast SPA	*Extensive areas of mudflats which support internationally important numbers of wintering wildfowl and waders, as well as the Annex II species desmoulin's whorl snail Vertigo moulinsiana.*	*11.2 km W*

4.1.2 The site falls into the Impact Risk Zone (IRZ) of Fairmile bottom (SSSI) located 3.7 km NE. However, due to the nature of the proposals the LPA will not be required to consult with Natural England.

4.1.3 The site is just within the 12km 'Wider conservation area' of the Singleton and Cocking Tunnels SAC, whereby significant impacts or severance to flightlines must be considered.

Non-Statutory Protected Areas

4.1.4 *Sites of Importance for Nature Conservation* (*SINCs*) are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2021)* and as such are material considerations when assessing planning applications. The following SINC's are located within 1.0km of the site.

Table No. 03 – Non-Statutory Protected Sites

Site	Location
Fontwell Racecourse	*0.5 km NW*
Slindon Bottom	*1.1 km N*

Priority Habitat

4.1.5 Within 2.0 kilometres of the Site, there are UK Priority Habitats consisting of: Lowland Meadows, Lowland Fens, Deciduous Woodland, Traditional Orchards, Wood pasture and Parkland, Ponds, Chalk Streams and Hedges. None of these are present on or adjacent to the site.

4.2 Habitats

4.2.1 Habitats within and adjacent to the site include:

- *g4– Modified Grassland*
- *u1b5 – Buildings*
- *u1b – Developed Land; Sealed Surface*
- *u1c – Artificial Unsealed Surface*
- *h2a – Hedgerow (Priority)*
- *h2b – Other Hedgerow*

Modified Grassland

4.2.2 The northern section of the site is dominated by heavily grazed modified grassland with a sward height of <5cm at the time of the survey. Grasses such as perennial rye-grass *Lolium perenne*, creeping bent *Agrostis stolonifera* and Yorkshire fog *Holcus lanatus* dominate with areas of annual meadow grass *Poa annua* in high-wear areas. The sward contains forbs such as frequent chickweed *Stellaria media,* creeping buttercup *Ranunculus repens,* common daisy *Bellis perennis* and dandelion *Taraxacum officinale.* Small areas of longer vegetation are present to the margins of the gallops, with species including common nettle *Urtica dioica*, Yorkshire fog and soft brome *Bromus hordeaceus* abundant. This common and widespread habitat is of **low site value**.

Buildings

4.2.3 Various buildings are present within the site, predominantly to the south-eastern section. These buildings are currently used for storage and are of **negligible value**. A full assessment of the suitability of this bulding with regards bats is detailed in section 4.3.

Developed Land Sealed Surface

4.2.4 Concrete yard areas are present between stable blocks. This habitat is of **negligible value.**

Artificial Unsealed Surface

4.2.5 Large areas of the site are comprised of compacted road planings which provide access from the road, as well as outdoor storage areas. The margins of some areas are becoming colonised with vegetation typical of disturbed ground including mouse-ear chickweed *Stellaria media*, Canadian fleabane *Erigeron canadensis*, horsetail *Equisetum arvense*, willowherb *Epilobium* sp. and bristly ox-tongue *Helminthotheca echioides*. A single pollarded poplar *Populus sp.* tree is also present in this area. This is a habitat of **negligible value.**

Hedgerow

4.2.6 The western boundary of the site comprises an earth bank colonised by bramble, with scattered elder *Sambucas nigra*, crab apple *Malus sylvestris* and hawthorn *Crataegus monogyna* present towards the north. Ground flora is dominated by hemlock *Conium maculatum* and common nettle with frequent occurrences of burdock *Arctium minus* and bristly ox-tongue. This habitat is considered to be of **site value** on account of its defunct nature.

Other Hedgerow

4.2.7 Short sections of cherry laurel *Prunus laurocerasus* hedging, c. 3-4m in height, exist within the centre of the site. The frontage of the site is separated from the roadside by a non-native ornamental hedge comprising laurel, cypress *Cupressus* sp., Franchet cotoneaster *Cotoneaster franchetii*, *Photinia* sp. and *Euonymus* sp. A single pollarded ash *Fraxinus excelsior* tree is also present within this hedgerow. Due to its dominance by non-native species, this habitat is of **negligible / low site value**.

4.3 Protected Species Assessment

Amphibians

Desk Study

4.3.1 There are limited records of great crested newt *Triturus cristatus* within a 2km radius of the site. Records are known from ponds south of Walberton, but extensive survey around the Wandleys Lane / Fontwell Avenue area for adjacent developments has not recorded presence. Records of palmate newt *Lissotriton helveticus*, smooth newt *Lissotriton vulgaris*, common toad *Bufo bufo* and common frog *Rana temporaria* exist within a 2.0km radius.

4.3.2 There are 2no. ponds within 500m of the site, the nearest of which is located 385m north-east.

Site Assessment

4.3.3 No ponds were identified onsite; the nearest pond in the local landscape is 385m away and isolated from the site by large expanses of horse paddock, and other residential properties. Whilst not inimical to newt dispersal, the distance is sufficiently large and lacking in suitable refuges that newts are unlikely to travel to the site. Terrestrial habitat on site is sub-optimal for amphibians due to the low sward height and regular grazing of the modified grassland, and large expanses of hard standing which comprise the remainder of the site. Given the lack of records locally, absence of suitable terrestrial habitat on site, and lack of ponds within a core dispersal range, the site is considered to be of **negligible value** to amphibians.

Reptiles

Desk Study

4.3.4 Records of grass snake (Natrix helvetica), slow worm (Anguis fragilis), adder (Vipera berus) and common lizard (zootoca vivipara) exist within 2.0km of the site.

4.3.5 Reptile surveys completed within the wider site in 2019 recorded a low pollution of slow worm. This included a single female slow worm along the western boundary of the site.

Site Assessment

4.3.6 Habitats on site are unchanged from the previous survey work, therefore the site is still likely to support a low population of slow worm within longer vegetation along the western boundary. Given the very low number of reptiles recorded and their limited distribution within the site, the habitats present are considered to be of no more than **site value** to the local reptile population.

Bats

Desk Study

4.3.7 Within a 2km radius of the site there are records of barbastelle *Barbastella barbastellus*, serotine *Eptesicus serotinus*, Whiskered/Brandt's Bat *Myotis mystacinus/brandtii,* Natterer's bat *Myotis nattereri*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, and brown long-eared bat *Plecotus auratus*. The site is just within the 12km 'Wider conservation area' of the Singleton and Cocking Tunnels SAC, suggesting bats from this SAC may use the surrounding area but it does not form a key part of their range.

Preliminary Roost Assessment - Buildings

4.3.8 The buildings within the site were assessed for their bat roost potential; a summary of the findings are detailed below in Table No. 04:

Table No. 04 – Preliminary Roost Assessment of Buildings

Building	Description	Potential
B01	*Large block building with corrugated metal roof and windows throughout. No evidence of bats noted internally or externally.*	*Negligible*
B02	*Small timber store with corrugated metal roof and walls covered in scaffold boards and breathable membrane. No evidence of bats was noted. The building contains no roost features and large windows make it internally bright.*	*Negligible*
B03	*A single storey accommodation cabin. The building is formed of tight wooden cladding and a modern synthetic panel roof. The building is in good condition with no suitable crevices or access points noted and no loft void present.*	*Negligible*

B04	*A large stable block formed of timber, with a mixture of metal and composite panel roofs. One section is boarded with plywood with the rest open. All spaces were inspected and no evidence of bats such as droppings was found.*	*Negligible*
B05	*Large pole-barn, with a corrugated metal roof and single-skin wooden weatherboarding and metal panel walls. The building is relatively dark, but offers low thermal mass and few useable features for bats. No evidence of bats was noted.*	*Negligible*
B06	*A portable / temporary prefab building. The building is well-sealed with no roof void or other roost features.*	*Negligible*
B07	*Stable buildings now in commercial use, formed of block walls and corrugated metal roof. The buildings are in constant use and no evidence of bats was noted.*	*Negligible*
B08	*Old stables now a timber store with timber walls and metal roof. The building is relatively dark and could support bats, but there are no significant crevices or voids and no evidence of bats was found.*	*Negligible*
B09	*Small prefab building converted from a shipping container. No roof void is present and the building is too well-sealed to allow bat access.*	*Negligible*
B10	*A large stable block formed of timber, with a mixture of metal and composite panel roofs. Weatherboarding was raised to the southern aspect however this was thoroughly inspected with a torch and endoscope with no evidence of current or past use*	*Negligible*

Preliminary Roost Assessment – Trees

4.3.9 Trees within and adjacent to the proposed construction zone were assessed for their bat roost suitability. Those trees which offer 'low' or above are detailed below.

Table No. 05 – Preliminary Roost Assessment of Trees

Tree	Description	Potential
T01	*Early-mature oak displaying no features but of a sufficient age that unseen features may be present.*	*Low*
T02	*Dead semi-mature trees which display small splits.*	*Low*

Foraging Value

4.3.10 The northern section of the site is formed of modified grassland, while the southern section is dominated by hard standing, both habitats which support very little invertebrate prey and are therefore of **negligible / low site value** to foraging bats.

4.3.11 The section of western hedgerow located adjacent to the site is dominated by bramble growing upon an earth bank with scattered elder and as such is of low value to foraging and commuting bats and is not considered to represent an important commuting route for bats from Cocking and Singleton Tunnels SAC. The remainder of this hedgerow located outside the site boundary is fragmented and therefore unlikely to support foraging or commuting by gap adverse species such as barbastelle or Bechsteins. Given its defunct nature, this hedgerow is considered to be of **site value**. The southern non-native hedgerow heavily fragmented and isolated in the environment by driveways along eastergate lane and is therefore considered to be of **negligible / low site value** to local bat populations.

Dormouse

Desk Study

4.3.12 A number of dormouse records exist within a 2.0km radius, mostly from Slindon and Binsted Woods where good populations exist and are regularly monitored.

Site Assessment

4.3.13 The only suitable habitats for dormice are the hedge and the scrub. Both habitats are extremely gappy and disconnected from other suitable habitat. The habitat is much too small and lacking in diversity to support a sustained population. The site offers **negligible** potential for dormice, which will not be considered further within this assessment.

[redacted]

Site Assessment

4.3.15 No evidence of badger such as tracks, prints, latrines, snuffle holes or setts were recorded anywhere within or adjacent to the site. The site is considered to be of **negligble value** to this species.

Hedgehog

Desk Study

4.3.16 Numerous records of hedgehog are present within the local area.

Site Assessment

4.3.17 The grassland onsite provides a foraging resource for hedgehogs while the base of the western hedge would be suitable for shelter and hibernation. The habitats present are therefore considered to be of likely **site value** to hedgehogs. The buildings and hardstanding are of **negligible value.**

Birds

Desk Study

4.3.18 A total of 191 records of bird species have been returned within 2.0km of the site, including several Schedule I species including red kite *Milvus milvus*. Relevant species to habitats present include woodlark *Lullula arborea*, yellowhammer *Emberiza citrinella* and turtle dove *Streptopelia turtur*.

Site Assessment

4.3.19 The grassland on site is of negligble value to birds on account of its short sward height and regularly disturbed nature, hedgerows however offer suitable nesting habitat for a range of common passerine species. House sparrows were recorded nesting within the garage section to the southern extent of B07. No active bird nests were recorded within any other building at the time of the survey. Given the abundance of similar habitat locally, the habitats present are considered to be of **site value.**

Invertebrates

Desk Study

4.3.20 A wide range of invertebrates are present locally, including numerous woodland specialists and butterflies from areas such as Slindon and Binsted Woods.

Site Assessment

4.3.21 The site habitats offer some potential for invertebrates, mainly in the boundary hedges and trees. The grassland is too well-maintained and lacking in structure or diversity to support unusual or diverse assemblages, while the earth banks to the west are vegetated and therefore unlikely suitable for solitary and mining bees and other invertebrates. The habitats overall are of **low site value** to invertebrates.

Invasive Species

Desk Study

4.3.22 The data search returned records of species such as Rhododendron and Cotoneaster horizontalis within 2.0km of the site.

Site Assessment

4.3.23 No species recorded on schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded on site during the updated survey visit.

5.0 ASSESSMENT OF EFFECTS

5.0.1 Using the Guidelines for Ecological Impact Assessment (IEEM, 2006 & updated by CIEEM, 2018), the assessment set out below considers the potential impacts of the scheme prior to mitigation. Detailed avoidance, mitigation and compensation measures are then discussed, with residual impact identified once these measures have been taken into account. Wherever possible mitigation measures have been designed into the scheme as this gives greater certainty over deliverability and ensures the correct application of the 'Mitigation Hierarchy' (as advocated by BS42020:2013, Defra 2019 and CIEEM, CIRIA & IEMA 2016).

5.0.2 Protected species for which the site offers negligible suitability have been scoped out of further assessment.

5.1 Designated Sites

Potential Impacts

5.1.1 The site falls into the Impact Risk Zone (IRZ) of Fairmile bottom (SSSI) located 3.7 km NE. However, due to the nature of the proposals no impacts upon this SSSI are predicted to occur.

5.1.2 The site is located within the 12km 'Wider conservation area' of the Singleton and Cocking Tunnels SAC. The site is dominated by buildings, hard standing and heavily grazed modified grassland; the loss of which shall have a negligible impact upon the conservation features of the SAC. The temporary loss of the southern hedgerow to allow for adequate visibility splay shall have a negligible impact upon the conservation features of the SAC due to its already fragmented nature and short length (c. 15m). Further impacts shall be avoided through the retention of vegetation along the western boundary of the site during the construction and operational phases.

Avoidance, Mitigation and Compensation

5.1.3 All construction works on site shall be undertaken in accordance with best practise regarding dust and emissions to prevent any degradation of adjacent hedgerow. This shall include measures such as reduced height of load tipping, sheeting of lorries to and from site, and use of misting and dust suppression during dry spells.

5.1.4 The western boundary vegetation is located outside the site boundary and shall be retained and protected within the scheme.

Residual Impacts

5.1.5 Once avoidance and mitigation measures have been considered, there shall be **no likely significant effect** upon any designated site as a result of this development.

5.2 Habitats

Potential Impacts

5.2.1 Development proposals will result in the loss of areas of modified grassland, hardstanding, buildings and species-poor ornamental hedging. These habitats are of broad low ecological value, the loss of which would be of minor impact magnitude.

5.2.2 In the absence of mitigation, impacts upon retained trees and hedgerows could include root compaction, vehicle strike, inappropriate storage of materials and pollution events during construction. Impacts would be of minor impact magnitude and unlikely to occur.

Mitigation and Compensation

5.2.3 Works during the construction phase will be undertaken in accordance with best practise guidelines to control any excess dust creation which may impact retained trees and tree lines. All re-fuelling and chemical storage shall take place in an approved location with appropriate containment measures in place and spill kits available.

5.2.4 All retained trees shall be protected in accordance with BS5837:2012, as detailed within the arboricultural package which accompanies this application.

5.2.5 The proposed scheme includes 2no. communal green spaces which shall be planted with native species of known wildlife value. This planting, in combination with new garden areas, shall adequately compensate for the loss of small areas of modified grassland resulting from the scheme. The hedge to the site frontage shall be replaced by a species-rich native hedge to include species such as hawthorn, blackthorn, dogwood, holly, guelder rose and dog rose.

Residual Impacts

5.2.6 Provided mitigation and protection measures are followed, no important habitats or plant species will be affected by this development, the impact of which is **not significant.**

5.3 Reptiles

Potential Impacts

5.3.1 In the absence of mitigation, individual reptiles utilising the western boundary or commuting through the site might be injured or prevented from commuting, resulting in a moderate impact at the site scale.

Mitigation and Compensation

5.3.2 Site clearance will be undertaken in a slow methodical manner, directionally east to west to ensure any reptiles that may be present to disperse away from the works area. The grass shall be kept regularly mown prior to clearance, and all log, debris and compost piles manually dismantled and rebuilt in the western buffer zone. This shall thereafter be maintained as long grassland for reptiles, cut once or twice a year and enhanced with log piles and a hibernaculum.

Residual Impacts

5.3.3 The overall impact of the scheme will be **negligible**.

5.4 Bats

Potential Impacts

5.4.1 The site is located within the 12km 'Wider conservation area' of the Singleton and Cocking Tunnels SAC. The site is dominated by buildings, hard standing and heavily grazed modified grassland; the loss of which shall have a negligible impact upon the conservation features of the SAC. The temporary loss of the southern hedgerow to allow for adequate visibility splay shall have a negligible impact upon the conservation features of the SAC due to its already fragmented nature and short length (c. 15m). Further impacts shall be avoided through the retention of vegetation along the western boundary of the site during the construction and operational phases.

Avoidance, Mitigation and Compensation

5.4.2 All construction works on site shall be undertaken in accordance with best practise measures outlined above to ensure the protection of retained vegetation.

5.4.3 The western boundary vegetation is located outside the site boundary and shall be retained and protected within the scheme.

5.4.4 All trees which have been identified as offering bat roost suitability shall be retained within the scheme. Artificial light spill upon the adjacent hedgerows and treelines shall be avoided to allow the use of this areas as a foraging resource and commuting route for bats. Compensation for the loss of areas of modified grassland shall be provided through the provision of native planting within the scheme. This shall provide habitat of a greater value to bats than the existing baseline.

Residual Impacts

5.4.5 The overall impact of the scheme will be **negligible**, with a minor positive effect in the long-term once vegetation has established.

5.5 Breeding Birds

Potential Impacts

5.5.1 The removal of the habitats on-site would result in the minor loss of foraging areas, whilst removal of buildings and southern hedgerow would result in loss of potential nesting sites and may result in disturbance of a bird's nest.

Mitigation and Compensation

5.5.2 Any buildings or areas of hedging scheduled for removal will be removed outside the nesting season *(season: March-August, although pigeons may nest all year)* or shall be checked prior to removal by a suitably qualified ecologist. Should works during the nesting season be unavoidable, works shall proceed with caution with a suitable buffer left around any active bird nests.

5.5.3 Compensation for the loss of suitable nesting habitat shall be provided through planting of new trees and native hedging. Bird boxes shall also be fitted to the northern side of retained mature trees to provide additional nesting opportunity while vegetation establishes. Compensation for the loss of house sparrow nesting sites shall be provided through the provision of an integrated house sparrow terrace and / or universal swift brick to the northern aspect of each new dwelling.

Residual Impacts

5.5.4 The overall impact of the scheme will be **negligible,** with the proposed scheme likely to provide a long-term positive impact once vegetation has matured.

5.6 Invertebrates

Potential Impacts

5.6.1 In the absence of mitigation, small areas of suitable habitat for common widespread invertebrates would be lost. Due to the species-poor nature of the habitats, the impacts would be of minor impact magnitude but certain to occur.

Mitigation and Compensation

5.6.2 The proposed landscape scheme shall include compensatory areas of native tree and hedge planting. The majority of plant species used within the scheme shall have a recognised wildlife value such as plants listed on RHS Plants for Pollinators.

Residual Impacts

5.6.3 The overall impact of the scheme will be **negligible**, with a positive impact in the long-term once vegetation has established.

5.7 Hedgehog

Potential Impacts

5.7.1 In the absence of mitigation, small areas of suitable foraging habitats would be lost. Without due care, habitat suitable for shelter and hibernation could also be impacted. The impacts would be of minor impact magnitude but likely to occur.

Mitigation and Compensation

5.7.2 Areas of short, modified grassland shall continue to be present on site to provide an optimal foraging resource for hedgehogs. All new closed board fencing within the scheme shall incorporate 13x13cm hedgehog access gaps at the gravel board to allow movement of hedgehogs around the site.

5.7.3 Existing vegetation to the western boundary of the site shall be retained and protected throughout construction through the use of tree protective fencing in accordance with BS5837:2012. These habitats shall be retained within the scheme to allow their continued use by hedgehogs and / or other mammals.

Residual Impacts

5.7.4 The overall impact of the scheme will be **negligible**, with a positive impact in the long-term once vegetation has established.

5.8 Future Baseline

5.8.1 The site is subject to active management. Therefore, general habitat and building maintenance works are likely to continue to keep the site in a managed state, similar to that found during the initial habitat assessment.

6.0 ECOLOGICAL ENHANCEMENTS

6.1 The design of the proposed development includes ecological enhancements for the benefit of wildlife to ensure compliance with *Local Planning Policy* and the emerging *Environment Act 2021* which shall mandate a minimum 10% net gain in biodiversity across all development sites. Ecological enhancements which will be included as part of development proposals include.

- *The use of flowering plants with a recognised wildlife value within the soft landscape scheme to provide year-round interest for invertebrates.*
- *The use of seed and fruit bearing tree species such as cherry, rowan, birch and crab apple within the scheme to provide a foraging resource for birds and invertebrates.*
- *Installation of 2no. general purpose bird boxes (such as Vivara Pro Seville 32mm nest box – or similar) suitable for a range of species within trees to the site boundaries.*
- *1no. cavity bat box and 1no. crevice bat boxes shall be installed to the southern aspect of surrounding mature trees. The boxes shall be as supplied by Greenwoods Ecohabitat (or similar).*
- *Installation of 2no. invertebrate boxes suitable for a range of invertebrates to south facing walls / trees and in more sheltered areas in vegetation to provide for a range of species.*
- *Creation of 2no. log piles to the margins of the site, to include areas of buried deadwood suitable for stag beetle.*
- *Planting of a new native hedge round the outside of the site;*
- *Creation of a wildlife / SUDS pond within the open space on-site.*

7.0 CONCLUSIONS

7.1 The main body of the site is dominated by modified grassland, hard standing and buildings; habitats of very low ecological value. Existing vegetation to the western boundary shall be retained within the scheme. Compensation for the loss of areas of modified grassland shall be provided through the creation of grassland areas and native tree and shrub planting. The loss of linear features such as short sections of ornamental hedgerow shall be compensated through the provision of new areas of native, species-rich hedge planting within the site.

7.2 The proposed construction zone is located within the wider conservation zone of Cocking and Singleton Tunnels SAC. A series of avoidance measures have been proposed which shall ensure that development has no adverse effect upon the conservation features of the SAC, therefore impacts upon this designation would be de minimis and no further assessment under The Habitats Regulations 2017 is required.

7.3 The site offers some suitable habitat for invertebrates and breeding birds, as well as supporting a low population of slow worm. Avoidance and mitigation measures have been built into the design of the scheme in accordance with the mitigation hierarchy and BS42020: 2013.

7.4 Once avoidance, mitigation and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant.**

7.5 Proposed ecological enhancements shall result in creation of a variety of habitats on site and Biodiversity Net Gain in accordance with local and national planning policy.

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Table No. 06 – Species List for Habitat Parcels

Modified Grassland

Common Name	Scientific Name	DAFOR
Annual Meadow grass	*Poa annua*	***LD***
Broadleaf Dock	*Rumex obtusifolius*	***F***
Chickweed	*Stellaria media*	***LA***
Common Daisy	*Bellis perennis*	***O***
Common Nettle	*Urtica dioica*	***LD***
Cow Parsley	*Anthriscus sylvestris*	***O***
Creeping Buttercup	*Ranunculus repens*	***F***
Cut-leaved Cranesbill	*Geranium dissecta*	***O***
Dandelion	*Taraxacum officinale*	***O***
False Oat	*Arrhenatherum elatius*	***LA***
Field madder	*Sherardia arvensis*	***R***
Field Speedwell	*Veronica agrestis*	***O***
Field Vetch	*Vicia*	***O***
Ground Ivy	*Glechoma hederacea*	***LF***
Hairy Bittercress	*Cardamine hirsuta*	***O***
Hogweed	*Heracleum sphondylium*	***O***
Perennial Rye-grass	*Lolium perenne*	***D***
Ragwort	*Senecio jacobea*	***O***
Rough Hawkbit	*Leontodon hispidus*	***F***
Scentless mayweed	*Tripleurospermum inodorum*	***O***
Soft Brome	*Bromus hordeaceus*	***LA***
Thistle	*Circium sp.*	***O***
White Clover	*Trifolium repens*	***F***
White dead-nettle	*Lamium alba*	***R***
Yarrow	*Achillea millefolium*	***O***

Artificial Unsealed Surface

Common Name	Scientific Name	DAFOR
Chickweed	*Stellaria media*	***A***
Willowherb	*Epilobium sp.*	***A***
Bristly Ox-tongue	*Helminthotheca echioides*	***A***
False Brome	*Brachypodium sylvaticum*	***F***
Horsetail	*Equisetum arvense*	***LD***
Perforate St Johns Wort	*Hypericum perforatum*	***R***
Canadian Fleabane	*Erigeron canadensis*	***F***
Prickly Sowthistle	*Sonchus asper*	***R***
Thistle	*Circium sp.*	***R***
Annual Meadowgrass	*Poa annua*	***F***
Cats-ear	*Hypochaeris radicata*	***O***

Yorkshire Fog	*Holcus lanatus*	***O***
Soft Brome	*Bromus hordeaceus*	***F***
Forget-me-not	*Myosotis arvensis*	***O***
Broadleaf Plantain	*Plantago major*	***O***
Scentless Mayweed	*Tripleurospermum inodorum*	***R***
Hemlock	*Conium maculatum*	***F***
Common Stalksbill	*Erodium cicutarium*	***R***
Field Speedwell	*Veronica persica*	***R***
Small-flowered Buttercup	*Ranunculus abortivus*	***R***

Hedgerow

Common Name	***Scientific Name***	***DAFOR***
Blackthorn	*Prunus spinosa*	***O***
Bramble	*Rubus fruticosus*	***D***
Crab Apple	*Malus sylvestris*	***R***
Elder	*Sambucas nigra*	***F***
Hawthorn	*Crataegus monogyna*	***O***

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Appendix A – Updated Site Photographs

Image 01 – View west across the grazed paddocks which form the northern section of the site.

Image 02 – View across the southern section of the western portion of the site.

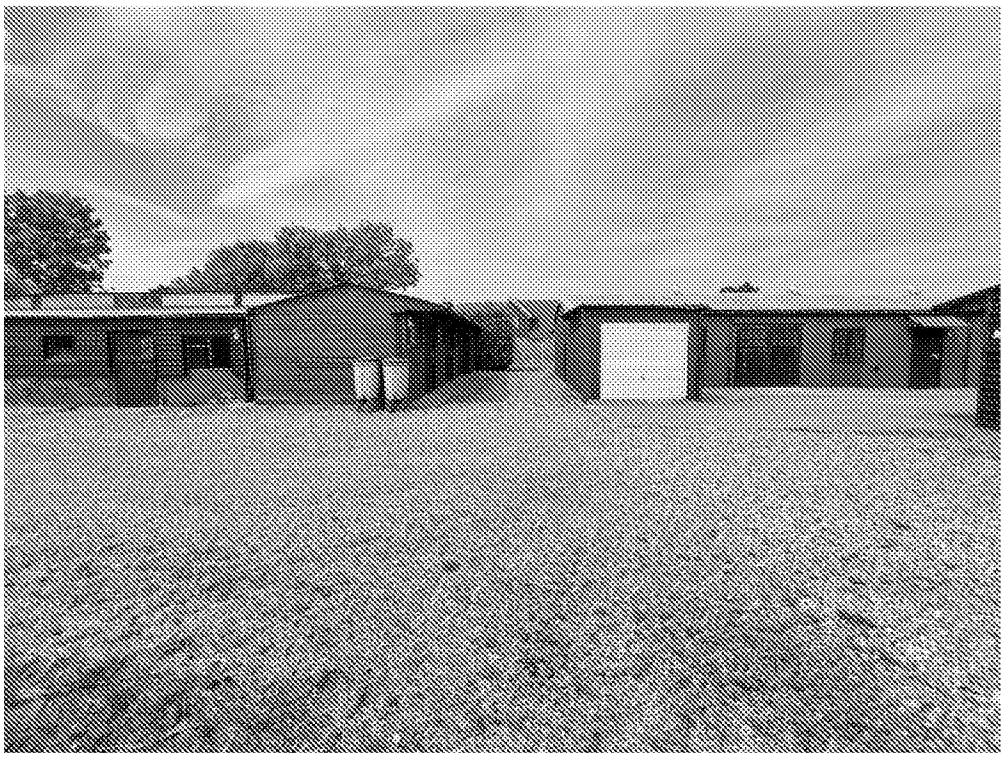

Image 03 – View of the eastern section of the proposed site area.

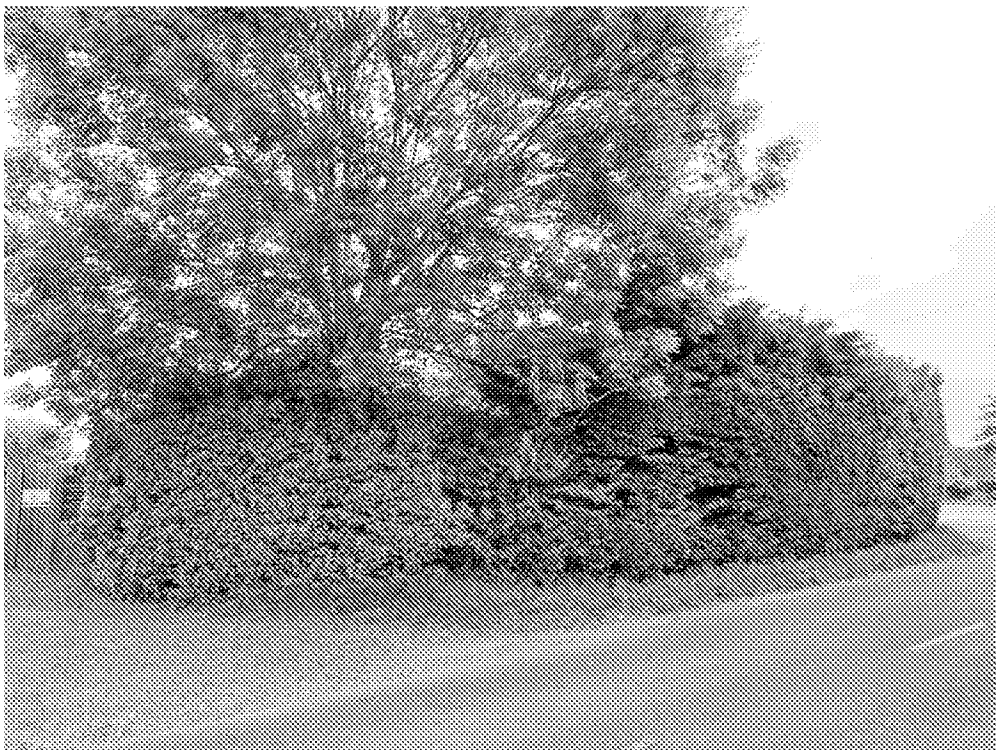

Image 04 – Short section of non-native hedgerow to the southern boundary.

Image 05 – House sparrows were recorded using the southern section of B07, pictured.

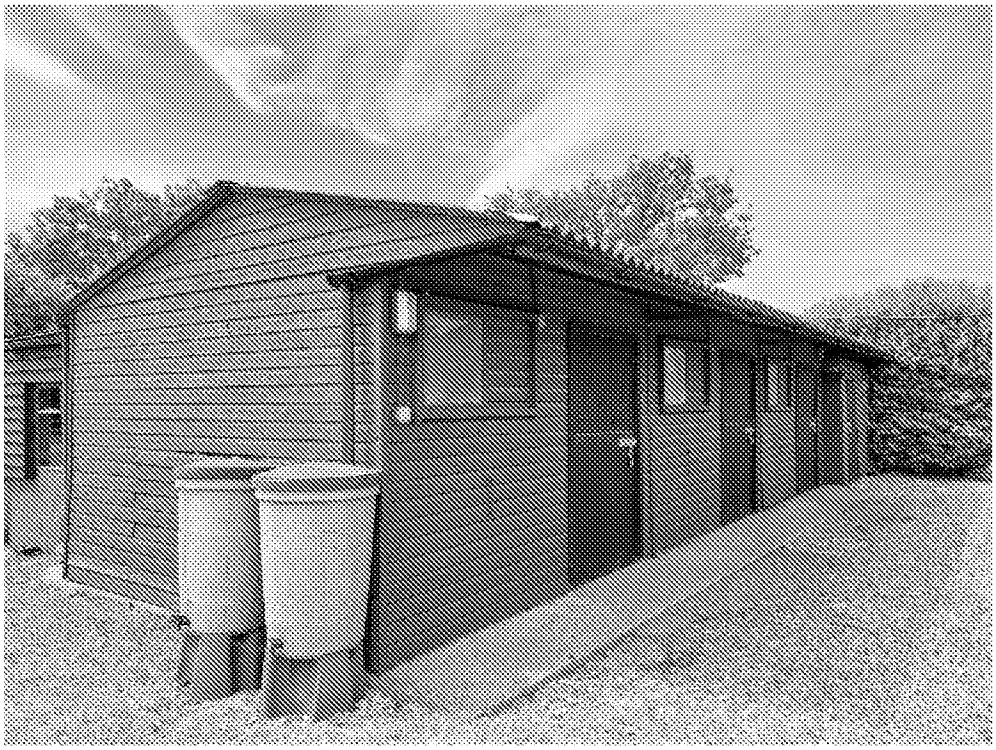

Image 06 – All buildings on site were assessed as continuing to offer 'negligible' bat roost suitability, as per the previous PEA completed in 2021.

10 20 30 m

N 1:750

Figure No. 01 - Site Habitat Plan
Eastmere Stables, Eastergate

Legend

- Red Line Boundary
- Non-native and ornamental hedgerow
- Native hedgerow
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Modified grassland

Final Issue

Rev	Description	Date	Initials
00	Final Issue	26/05/23	CO

LIZARD
Landscape Design and Ecology
The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH
T. 01903 216049 E. lizardlandscapes@btconnect.com W. lizardlandscapesecology.com

Client
Mr M. Langridge

Project Title and Location
Eastmere Stables, Eastergate

Drawing Title
Site Habitat Plan

Scale	Drawn	Approved	Date
1:750 @A4	CO	HS	26/05/23