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Non-Technical Summary

A Preliminary Ecological Appraisal and concurrent Preliminary Bat Roost Assessment (Building Inspection) was carried out at Sandbanks residential care home, New Romney on the 31st of January 2018 in order to determine whether any ecological constraints could affect the proposed works for the site. Current proposals are for an extension to be built. The survey area extended over approximately 0.2 hectares (ha).

The main findings of the survey are as follows:

- The site is not located within any statutory or non-statutory land designations, nor is it likely to impact on any statutory or non-statutory land designations.
- The habitats recorded on site were common and widespread in the locality and included buildings and hardstanding, amenity grassland, tall ruderal vegetation, scattered trees and introduced shrub/scrub.
- During the preliminary roost assessment, a limited number of potential features suitable for bats were observed, including a missing roof tile in the main building, and a small number of cracks around the door and roof of the shed large enough for bats to access.
- Overall, the site was considered to provide low potential for bats, reptiles and breeding birds and these species groups pose some constraints to the proposed works.
- A single bat activity survey, in accordance with current guidelines, is recommended to determine a likely presence or absence in the roofing tiles of the main building or the roof void of the shed.
- A precautionary approach is recommended regarding reptiles and breeding birds, with any vegetation clearance being undertaken in two stages.
- Details regarding further surveys and specific mitigation including precautionary working practices together with habitat enhancement measures are provided in the Recommendations section of the report.

1.0 Introduction

Background

- 1.1 Ambiental was commissioned to undertake a Preliminary Ecological Appraisal and concurrent Preliminary Bat Roost Assessment, to inform the potential ecological constraints of proposed future development of Sandbanks Residential Care Home, Littlestone, New Romney (hereafter referred to as "the site").
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 - to identify the major habitats present
 - to identify the potential for any legally protected species to be present; and
 - to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 Recommendations for further ecological surveys are made at the end of the report.
- 1.5 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2013 & 2016).
- 1.6 It is understood that the proposed development is for an extension to the main building. This will involve extending the northern side of the building out to the site boundary and the eastern end of the building eastwards approximately 10-15m into the garden. More parking spaces will also be created in the car park, but the car park is to remain the same size.

Site Description

- 1.7 The site is in use as a care home, dominated by a large, modern brick building with a pitched, slate tiled roof and associated hardstanding. There is an area of amenity grassland in the east of the site, bordered by planted beds, scattered shrub and tall ruderal vegetation. There is a shed in the garden. The shed is brick and features a pitched, clay tiled roof.
- 1.8 The National Grid Reference for the centre of the site is TR085 247. The survey area extended over approximately 0.2 hectares (ha).

2.0 Methodology

Desk Study & Consultations

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site. The data search was based on available information provided by the following sources:
- Kent and Medway Biological records centre (KMBRC, 2018)
 - Multi-Agency Geographical Information for the Countryside (MAGIC, 2018);
 - National Biodiversity Network (NBN) (2018);
 - Ordnance Survey mapping; and
 - Aerial photography.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on 31st January 2018. The survey was carried out by a suitably qualified ecologist, Richard Lees who has over two years professional experience of undertaking ecological surveys. The weather conditions during the survey were overcast, 6°C, dry with a gentle SW wind.
- 2.3 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. Habitats were described and mapped (Figure 1: Appendix B). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (Appendix D).
- 2.4 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.
- 2.5 Target notes highlighting a particular feature of ecological interest are provided in Appendix A, with associated photographs.
- 2.6 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.7 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:
- Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
 - The presence of features in, and on trees, indicating potential for roosting bats (Chiroptera), including knot and rot holes, loose bark, features on buildings including loose and missing tiles and gaps in brickwork and soffits. Secondary evidence of bats including staining, droppings and feeding remains were also looked for;
 - The presence of nesting habitat for breeding birds, including mature trees, dense scrub and hedgerows and direct evidence of bird nesting including bird song, old nests etc.;
 - Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways and latrines;
- 2.8 The potential presence for protected species is categorised as Negligible, Low, Moderate, High or Present, based on the findings of the field survey and on the evaluation of existing data.
- 2.9 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Preliminary Roost Assessment

- 2.10 The inspection of the two on-site buildings was carried out on 31st January 2018 concurrently with the initial habitat survey, in accordance with good practice guidelines (Collins, 2016).
- 2.11 The interior and exterior of the structures were inspected closely with the aim of identifying the presence of bats and any secondary evidence together with any potential roost sites. Secondary evidence includes droppings, feeding remains, scratch marks and oil and urine staining.
- 2.12 The external inspection comprised a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. A high powered torch was used to illuminate internal features at height, for instance the apex of the roof and associated supporting beams, and these were inspected using close focusing binoculars when required.
- 2.13 In accordance with current standing advice issued by Natural England (2015), the following types of bat roosts were considered during the assessment:
- Day Roost - where individual bats, or small groups of males, rest or shelter in the day

- Night Roost - where bats rest or shelter at night between foraging in the active period, but rarely during the day
- Feeding Perch - where bats hang to eat or catch their prey or rest at night between feeding sessions.
- Hibernation Roost - where bats are found during winter. These roosts typically comprise a stable environment where bats can enter torpor; these areas are normally of a constant temperature.
- Transitional or Occasional Roost - where individual or small numbers of bats gather at a temporary site before and after hibernation

Caveat

Data Search Constraints

- 2.14 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.15 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.
- 2.16 The survey was carried out early in the growing season and therefore many species may not have been visible above ground or readily identifiable.
- 2.17 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.18 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Bat Survey Constraints

- 2.19 Bats are mobile animals which can move roost sites throughout the year. It is possible that surveys carried out in March may miss roosts not occupied until later in the year. However, where undisturbed, it is generally possible to find secondary evidence of bats inside a building throughout the year.
- 2.20 It is considered that the survey was sufficiently rigorous to assess the ecological value of the site for the purposes of this assessment.

3.0 Baseline Conditions

Aerial Photography and OS Maps

- 3.1 OS maps prepared by the Kent and Medway Biological Records Centre were employed in conjunction with satellite imaging to ascertain the distances to and locations of all statutory and non-statutory designated sites within 2km.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.2 The closest statutory designated site is Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI), located 800m to the south. Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA) is 1km south of the site. 1.2km south is the Dungeness, Romney Marsh and Rye Bay RAMSAR site. Dungeness Special Area of Conservation (SAC) is located approximately 1.5 km south.
- 3.3 Up to the limit of the search, 2km west, encompassing parts of the English Channel, the extent of the Dungeness, Romney Marsh and Rye Bay SPA continues.
- 3.4 400m to the north-east of the site and extending a further 2km north is located the potential site of an extension to the Dungeness, Romney Marsh and Rye Bay RAMSAR.
- 3.5 1.4 km north-north-east of the site is situated Romney Marsh Visitor Centre, Kent Wildlife Trust reserve, and 200m beyond this to the north is the Romney Warren Local Nature Reserve.

Non-statutory Sites

- 3.6 There are no non-statutory sites of nature conservation importance with a 2km radius of the site (see Table 1 below).

Site Name	Reason for Designation	Area (ha)	Distance from the Site (km)
Dungeness, Romney Marsh and Rye Bay SSSI	Dungeness, Romney Marsh and Rye Bay is a nationally important site by reason of a diverse range of biological and geological features, specifically the coastal geomorphology of Dungeness and Rye Harbour and the following nationally important habitats: saltmarsh, sand dunes, vegetated shingle, saline lagoons, standing waters, lowland ditch systems, and basin fens. These habitats and others within the site support the following nationally important species interests: populations of four vascular plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended); an assemblage of Schedule 8, nationally rare and nationally scarce vascular plants; populations of the vulnerable Warne's thread-moss <i>Bryum warneum</i> ; populations of water voles <i>Arvicola terrestris</i> ; an assemblage of breeding birds associated with shingle beaches and saltmarsh, lowland damp grasslands, lowland open waters and their margins, and scrub; breeding numbers of 16 species of bird; assemblage of over 20,000 waterfowl in the non-breeding season; wintering numbers of 17 species of bird and three species during passage periods; metapopulations of great crested newts <i>Triturus cristatus</i> ; endemic species and subspecies of invertebrates;	9,09.00ha	800m South

	populations of two invertebrate species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); populations of ten endangered, vulnerable and rare invertebrate species; assemblages of invertebrates occurring on 'dry' coastal habitats; and assemblages of wetland invertebrates.		
Dungeness, Romney Marsh and Rye Bay SPA	The area is regularly used by 34,625 individual water birds (5 year peak mean 2002/3 – 2006/7), including (but not limited to) Bewick's swan <i>Cygnus columbianus bewickii</i> , European white-fronted goose <i>Anser albifrons albifrons</i> , widgeon <i>Anas penelope</i> , gadwall <i>A. strepera</i> , shoveler <i>A. clypeata</i> , pochard <i>Aythya ferina</i> , little grebe <i>Tachybaptus ruficollis</i> , great crested grebe <i>Podiceps cristatus</i> , cormorant <i>Phalacrocorax carbo</i> , bittern <i>Botaurus stellaris</i> , coot <i>Fulica atra</i> , golden plover <i>Pluvialis apricaria</i> , lapwing <i>Vanellus vanellus</i> , sanderling <i>Calidris alba</i> , ruff <i>Philomachus pugnax</i> , whimbrel <i>Numenius phaeopus</i> and common sandpiper <i>Actitis hypoleucos</i> .	4,010.29 ha	1000m South
Dungeness, Romney Marsh and Rye Bay RAMSAR	The site qualifies under Criterion 1 because it contains representative, rare, or unique examples of natural or near-natural wetland types: • Annual vegetation of drift lines and the coastal fringes of perennial vegetation of stony banks (Ramsar wetland type E – sand, shingle or pebble shores). Dungeness and Rye Harbour comprise the largest cusped foreland (a low-lying triangular foreland) in Britain and form part of a system of shingle barrier beaches that can be traced 40 km from Fairlight in East Sussex to Hythe in Kent. This is ideal habitat for annual vegetation of drift lines, which occurs on naturally functioning shingle beaches. It is one of the scarcest habitats in the UK. The frontage at Rye Harbour and Dungeness is one of the most important areas in the country for this habitat, with approximately 15 km of shingle foreshore. The annual vegetation of drift lines grows on the seaward and landward sides of the beach ridge where waves deposit seed. The habitat grades into and overlaps with the more stable perennial vegetation of stony banks that grows on ridges inland from the beach. • Natural shingle wetlands: saline lagoons (Ramsar wetland type J – coastal brackish/saline lagoons), freshwater pits (Ramsar wetland type K – coastal freshwater lagoons) and basin fens (Ramsar wetland type U – non-forested peatlands). The vast shingle beach at Dungeness contains a number of natural wetlands, referred to as the Open and Fossil Pits, within Dungeness RSPB Reserve and Lydd Ranges.	6377.63 ha	1200m South
Dungeness SAC	Annual vegetation of drift lines. The Dungeness foreland has a very extensive and well-developed shoreline, although with sparse vegetation and in places some human disturbance. It is one of two representatives of Annual vegetation of drift lines on the south coast of England. The strandline community on this site comprises Babington's orache <i>Atriplex glabriuscula</i>, which occurs mostly on the accreting eastern shoreline, although it is also present on the eroding southern shoreline. Perennial vegetation of stony banks Dungeness is the UK's largest shingle structure and represents the habitat type on the south-east coast of England. The total area of exposed shingle covers some 1,600 ha, though the extent of the buried shingle ridges is	3241.43 ha	30m East

	much greater. Despite considerable disturbance and destruction of the surface shingle, the site retains very large areas of intact parallel ridges with characteristic zonation of vegetation. It still has the most diverse and most extensive examples of stable vegetated shingle in Europe, including the best representation of scrub on shingle, notably prostrate forms of broom <i>Cytisus scoparius</i> and blackthorn <i>Prunus spinosa</i> . A feature of the site, thought to be unique in the UK, is the small depressions formed within the shingle structure, which support fen and open-water communities.		
Romney Marsh VC KWT reserve	Rare habitats including ditches and vegetated shingle	11.00ha	1700m North-East
Romney Warren LNR	A newly designated Local Nature Reserve harbours unspoiled dune grassland, willow scrub and ponds rich in wildlife.	11.00ha	1700m North-North-East

Table 1: Sites of Nature Conservation Importance within 2km of the site

Habitats

Site Summary

- 3.7 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix B, and the target notes are listed in Appendix A.

Buildings

- 3.8 The main residential building is a large, two storey steel framed construction covering 0.06 ha, comprising rendered brick, slate tiles, pitched roof and PVC double glazed windows throughout. The guttering is modern UPVC and the windows and doors are all well sealed. It is in an approximate 'L' shape configuration.
- 3.9 The second building on site is a small work shed at the eastern extent of the garden. It is brick built, and features a pitched roof, covered in clay tiles. It is in a generally poor state of repair, featuring broken and raised tiles and cracks around doors and windows. The window frames are timber and also cracked.
- 3.10 No droppings, staining, scratch marks or feeding remains were found around the exterior of either of the buildings. No bats or secondary evidence of bat use or roosts were found within the structures.

Hardstanding

- 3.11 The site was bordered on its north, east and west by shingle roads, gradually transitioning into a tarmac drive way to the side and rear of the building. To the front of the building was an area of wooden decking, with plant pots and seating. Extending from the south east corner of the decking was a small paved path which extended along the length of the garden 25m to the shed, where it extended north for a further 15m. Hardstanding accounted for approximately 0.05ha of the site.

Grassland

- 3.12 Within the site, the area of amenity grassland was approximately 0.03 ha and dominated the south and east of the site. The grassland was dominated by fescues (*Festuca sp*) with forbs also observed, including yarrow (*Achillea millefolium*), dove's-foot crane's-bill (*Geranium molle*), daisy (*Bellis perennis*), clover (*Trifolium sp*) and ribwort plantain (*Plantago lanceolata*).

Ruderal

- 3.13 At the eastern extent of the site was a small area of ruderal vegetation which ran from the north to the south of the site. Ruderal vegetation had also encroached into the north eastern boundary of the amenity grassland and combined they covered an area of approximately 0.007 ha. Species present included foxglove (*Digitalis purpurea*), bramble (*Rubus fruticosus* agg.) dog rose (*Rosa canina*), euphorbia (*Euphorbia sp.*), lords and ladies (*Arum maculatum*), nettle (*Urtica dioica*), columbine (*Aquilegia vulgaris*) and stinking iris (*Iris foetidissima*).

Introduced Shrubs

- 3.14 Around the very eastern extent of the site, were some small non-native, introduced shrubs including buddleja (*Buddleja*), privet (*Ligustrum vulgare*) and two immature Leyland cypress (*Leylandii sp.*) bushes.

Trees and Tree Preservation Orders (TPO)

- 3.15 There is a single elder (*Sambucus nigra*) to the immediate south of the shed, in the extreme north east corner of the site is a single immature field maple (*Acer campestre*). Neither specimens are subject to a TPO.

Preliminary Roost Assessment

- 3.16 The main residential building and the shed were included in the preliminary roost assessment. These are described below.

Main Building

- 3.17 The main building comprised a large, two storey steel framed construction. It has a rendered brick exterior, slate tiles, pitched roof and PVC double glazed windows throughout. The guttering was modern, PVC pipe; the windows and doors were well sealed. It was in an approximate 'L' shape configuration.
- 3.18 A single roof tile was missing on the northern extent of the building See photograph 1. This represents the only potential point for a bat to roost on the whole building. It should be noted that there is no roof void in the building, all available space is utilised as part of the functioning care home.

- 3.19 No droppings, staining, scratch marks or feeding remains were found around the exterior of the building. No bats or secondary evidence of bat use or roosts were found within the structure.

Shed

- 3.20 Close to the eastern boundary was a small brick shed with a pitched A-frame timber roof construction, clad in clay tiles with wooden timber window frames. It was in generally poor condition, featuring potential access points including cracks in the door and raised tiles (see appendix A). Access to the shed was not possible at the time of survey; however, the interior could clearly be seen by shining a torch through the window.
- 3.21 No droppings, staining, scratch marks or feeding remains were found around the exterior of the building. No bats or secondary evidence of bat use or roosts were observed within the structure.

Protected Species

- 3.22 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.23 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 2km radius.

Reptiles /Amphibians

- 3.24 The data search returned recent records for slow worm (*Anguis fragilis*), smooth newt (*Lissotriton vulgaris*) great crested newt (*Triturus cristatus*), common lizard (*Zootoca vivipara*), grass snake (*Natrix natrix*) and adder (*Vipera berus*) within 2km of the site. The most recent record was from a common lizard in 2015 and was located approximately 200m from the site.
- 3.25 The on-site habitats provide limited potential for reptiles. At the boundary of the amenity grassland and the tall ruderal vegetation in the east of the site, there is a compost heap. These provide excellent hibernacula for many reptile species (see target not on habitat map appendix B). There is some connectivity of habitats into other residential gardens to the south of the site. This represents suitable foraging habitat for reptiles.
- 3.26 Overall the site was considered to provide **negligible** potential for reptiles and amphibians.

Bats

- 3.27 The data search returned records (post 2004) for ten different species of bat within 2km of the site, including Pipistrelle (*Pipistrellus pipistrellus*), Nathusius pipistrelle (*Pipistrellus nathusii*), Leisler's (*Nyctalus leisleri*), Noctule (*Nyctalus noctula*), Serotine (*Eptesicus serotinus*), Daubenton's (*Myotis daubentonii*), Soprano pipistrelle (*Pipistrellus pygmaeus*), Whiskered (*Myotis mystacinus*), and Brown Long-eared (*Plecotus auritus*).
- 3.28 The closest records for bats were for located approximately 600m South-West of the site from a brown long-eared (2016)
- 3.29 The shed at the bottom of the garden has a limited potential for bats due to its accessibility. The main building does not have a loft space and only a single potential access point. This is represented by a missing roof tile on the northern wing of the building which has a south facing aspect. This may provide potential access into the roof void, or may offer sheltering opportunities for crevice dwelling species such as pipistrelles. The nearest known roost is 200m to the West.
- 3.30 Overall the site was considered to provide **low** potential for roosting bats and **negligible** potential for foraging bats.

Birds

- 3.31 A number of records for Red or Amber listed Birds of Conservation Concern¹ (BoCC) and notable² bird species were returned by the data search and may utilise habitats within the site. Species recorded include Merlin (*Falco columbarius*), Peregrine (*Falco peregrinus*), Herring Gull (*Larus argentatus*)
- 3.32 In addition, there were records for two notable bird species from within the data search. Stock Dove (*Columba oenas*) Red Kite (*Milvus milvus*) may utilise on-site habitats.

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria, those whose population or range has declined rapidly in recent years, and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe, those whose population or range has declined moderately in recent years, those whose population has declined historically but made a substantial recent recovery, rare breeders, and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

- 3.33 The large expanse of rooftop on the main building provides habitat suitable for birds to perch and potentially nest (for example pigeon (*Columbidea sp*) and herring gull). The garden offers some limited nesting and foraging opportunities for smaller birds such as sparrow (*Passeridae sp*) starling (*Sturnus vulgaris*), which have the potential to attract the merlin's and peregrines in the area.
- 3.34 Overall the site was considered to provide **negligible** potential for breeding birds.

Badger

- 3.35 Records for this species are kept confidentially and were not returned by the data search.
- 3.36 During the survey no setts or secondary signs of badgers such as footprints or hairs were observed
- 3.37 The garden is the only feature of the site which may offer potential for badgers, however it is fenced off and the land itself has been reclaimed over time from the beach. Therefore the soil layer in the garden will be artificially introduced and shallow, offering little foraging potential. The wider shingle environment is not considered suitable for badgers to either forage or build setts.
- 3.38 The site was considered to provide **negligible** potential for badger.

4.0 Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2006) and in accordance with BS 24040:2013. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2010 (as amended) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Dungeness SAC (the shingle beach) located directly to the front of the building 30m to the East. The site does not provide any supporting habitat for this designated site.

Features of National Importance

- 4.6 Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level³.
- 4.7 The closest site of national importance for nature conservation is Dungeness, New Romney and Rye Bay SSSI located 800m to the South. The site does not provide any supporting habitat for this statutory designated site.

Features of Regional (i.e. Kent) Importance

- 4.8 The site does not include any features of value at this level neither is it likely to be selected as a local wildlife site based on the results of the current survey.

Features of District (i.e. Dungeness) Importance

- 4.9 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of local (i.e. New Romney) Importance

- 4.10 The site does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the project

- 4.11 The on-site buildings could potentially support limited numbers of bats. The compost heap and small areas of tall ruderal vegetation have some, albeit limited potential to support small numbers of reptiles such as common lizard.

Summary

- 4.12 Overall on the basis of the survey results and the above criteria, habitats within the site are considered to be of limited ecological value within the immediate vicinity only. The site provides limited suitable habitat to support a small number of protected BAP species and groups including reptiles, and bats. However, populations of these are unlikely to be locally significant.

³ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Local Plan Evaluation

4.13 The Shepway district plan includes the following Nature Conservation Policies that are relevant to the site.

- **12.20** 'Biodiversity' (the range of plant and animal species) promotes an attractive and healthy countryside through helping regulate natural processes like climate change and enabling wildlife to adapt to such changing conditions. A species cannot be re-created and their loss will inevitably impact on wider environmental systems. Biodiversity provides a direct human resource including opportunities for providing new and improved medicines, crop and livestock varieties and also potential for employment creation related to land management and tourism. The UK Action Plan for Biodiversity was published by Government in 1994 prompting the identification of costed targets and proposed actions for over 100 species and 14 habitats across the UK. The Kent Biodiversity Action Plan was produced in November 1997 as the County's response to these national initiatives. The District Council is to produce a Local Biodiversity statement in 2002.
- **12.21** Shepway contains a rich diversity of habitats and species. Habitats range from rolling chalk downland to low lying marsh, shingle and dune areas. The Kent Wildlife Habitat Survey records that Shepway has the second highest number of habitats for a District in Kent. In recognition of the District's many valuable nature conservation resources, as at November 2001, the following designations have been made or are proposed.
- Substantial parts of Dungeness and the Folkestone to Etchinghill Escarpment contributes to the "Natura 2000" series, through the identification of internationally important areas under European Law (also see paragraphs 12.35 and 12.36)
- English Nature has designated 15 Sites of Special Scientific Interest (SSSIs) due to their particular scientific and wildlife value. Substantial parts of Dungeness and the Folkestone to Etchinghill Escarpment SSSIs have also been identified for their international nature conservation importance.
- The Dungeness National Nature Reserve was designated in June 1998. The Council has established part of the Folkestone East Cliff and Warren as a Local Nature Reserve and proposes others within the District as suitable opportunities arise.
- The Kent Wildlife Trust has identified 37 Wildlife Sites (formerly known as Sites of Nature Conservation Interest (SNCIs) of local or countywide wildlife importance.

12.22 The above hierarchy of nature conservation designations is identified in Policies CO8, CO9, C10 and CO14 below and is shown on the Proposals Map. Individual nature conservation designation sites are listed Appendix 8. In addition, Shepway contains a broad range of important species, including those protected under law. Due to changing population, roosting or feeding locations, the occurrence of these species will often not be restricted to designated sites. Similarly, other habitats and landscape features of importance for nature conservation such as ponds, trees, hedgerows and other vegetation including old pasture, can also be found throughout the district. Policy CO11 seeks to protect wildlife features outside of nature conservation designations for their intrinsic nature conservation importance or contribution to wider biodiversity objectives (through for example providing a link between different habitats). A number of the Structure Plan's Environment Policies also deal with nature conservation issues.

POLICY CO21 The District Planning Authority will grant planning permission for an extension or alteration to an existing dwelling in the countryside subject to proposals meeting all of the following criteria:

- a) the dwelling to be extended or altered is in a lawful residential use;
- b) the proposal is acceptable within the terms of Policy BE8;
- c) the proposal would not visually dominate or substantially alter the character of the existing dwelling;
- d) development would not adversely impact on the quality and character of the landscape or be detrimental to the rural setting.

5.0 Conclusions and Recommendations

Conclusions

- 5.1 The survey site is located adjacent to the seafront at Littlestone, New Romney, Kent. The survey area extended over approximately 0.2 hectares (ha). Habitats to be impacted by the development proposals include amenity grassland, tall ruderal vegetation, introduced shrub and two immature trees.
- 5.2 It is understood that the proposed development is extend to the main building. This will involve extending the northern side of the building out to the boundary line and the eastern end of the building eastwards approximately 10-15m into the garden. More parking spaces are also to be created in the car park.
- 5.3 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Dungeness SAC 30m to the east at its closest point and the survey area does not support any features that contribute to the designation of this site and works are small and discrete in nature and therefore considered highly unlikely to impact on the qualifying features of this SAC.

- 5.4 Habitats within the proposed development area were common and widespread and assessed as being of limited value to wildlife however features provide some potential to support small numbers of breeding birds, reptiles and bats and these species may pose a constraint to works.
- 5.5 During the preliminary roost assessment, no secondary signs of bats were observed in the main building or the shed. A single missing roof tile on the main building and cracks in the door and raised tiles on the shed provided some potential for crevice dwelling bats.
- 5.6 In accordance with best practice guidelines, it is recommended that a single bat activity survey is conducted to ascertain a presence or likely absence on site.
- 5.7 In addition, a precautionary approach to vegetation clearance is recommended (to include removal of the compost heap) to minimise any adverse impacts on reptiles.
- 5.8 A precautionary approach to the clearance of shrubs and scrub is also recommended in order to minimise any adverse impacts on nesting birds.
- 5.9 Details regarding specific mitigation, including further surveys and precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Bats

- 5.10 A single activity survey is recommended in order to provide information on if and how bats are using the site. Activity surveys can only be undertaken during the active period for bats taken to run between May and September. Bats receive protection under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010 (as amended).
- 5.11 The results of the bat surveys can then be used to inform specific mitigation and enhancement measures for this species group to include a lighting scheme that is sympathetic to bats.
- 5.12 Where a roost is likely to be impacted by the works, and where avoidance is not possible, it may be necessary to obtain a European Protected Species Mitigation (EPSM) Licence before the works can proceed and to complete any necessary mitigation.
- 5.13 Such a licence would need to be obtained from Natural England once full planning permission is in place. The application will require the drafting of a detailed mitigation strategy including timing and construction methods in addition to the mitigation measures proposed. Natural England currently requires 30 working days to determine a licence application.

Breeding Birds

- 5.14 The on-site scattered trees and shrubs provide limited nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).

- 5.15 In order to avoid any potential impact on breeding birds, the clearance of any trees or scrub and shrubs should be undertaken outside the main bird nesting season which runs from March to August inclusive⁴, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.
- 5.16 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

Reptiles

- 5.17 All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended). The site supports discrete areas of suitable habitat and therefore a precautionary approach is recommended.
- 5.18 In order to safeguard this species group, a series of phased habitat management should be undertaken prior to works commencing.
- 5.19 Phased clearance must be undertaken in the active period for reptiles taken to run between March and September inclusive. In the first phase, grassland and scrub should be reduced in height to approximately 200mm above ground level. Vegetation should be cleared using hand tools, such as chainsaws and strimmers. All cut vegetation should be removed from the site.
- 5.20 Vegetation clearance should commence from the central areas in an outwardly direction in order to encourage any reptiles to move into adjacent retained areas.
- 5.21 The second phase should then be undertaken the following day. All vegetation should be cut to ground level using the same method as detailed above.
- 5.22 The compost heap should be carefully taken apart by an ecologist by hand and in stages. Any reptiles encountered will be moved to suitable adjacent habitat outside the working area. The compost heap will be removed the same day in order to ensure reptiles do not return to the feature.

⁴ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Habitat Enhancement

- 5.23 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Bird and Bat Boxes and Bricks

- 5.24 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on new trees or incorporated into the new building design. Some recommendations are made below as a guide.
- 5.25 Bat roosting opportunities could be provided through the incorporation of bat bricks into the building such as the Ibstock Bat Box A, or external roosting through the installation of boxes on the outside of the walls. Alternatively tree mounted bat boxes could be installed. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality. More specific bat mitigation should be devised following the activity surveys.
- 5.26 Bird boxes could be installed on the walls of the new extension which could include the following Schwegler designs: 1MR for a range of common garden birds and 1SP sparrow terrace.
- 5.27 Bird and bat boxes should be installed at appropriate locations ideally with south-east or south-west facing aspects at least 3m from ground level. If installed on the building, these should ideally be positioned directly below the eaves.

Compensatory Planting

- 5.28 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

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7.0 Glossary of Terms

ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
Birds Directive	Council Directive 79/409/EEC on the conservation of wild birds
BoCC	Birds of Conservation Concern
BRC	Biological Records Centre
BTO	British Trust for Ornithology
CBD	Convention on Biological Diversity
CCW	Countryside Council for Wales
CEH	Centre for Ecology and Hydrology
CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW Act 2000	Countryside and Rights of Way Act 2000
cSAC	Candidate Special Area of Conservation
CWS	County Wildlife Site
DAFOR	Plant abundance scale used to score plants recorded within a surveyed area. Values are: Dominant, abundant, frequent, occasional, rare.
Defra	Department for Environment, Food and Rural Affairs
DfCLG	Department for Communities and Local Government
DoE	Department of the Environment (now Defra)
dSAC	Draft Special Area of Conservation
DWS	District Wildlife Site
EC	European Commission; also European Community with reference to the Habitats Directive
EN	English Nature (now Natural England)
EPS	European Protected Species
EPSM	European Protected Species Mitigation
EU	European Union
FCS	Favourable Conservation Status
GB	Great Britain (England, Scotland and Wales, excluding Northern Ireland)
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
HMSO	Her Majesty's Stationery Office
IDD	International Designations Database
IUCN	The World Conservation Union (International Union for the Conservation of Nature)
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
Lekking	Where males assemble during the mating season to engage in competitive displays in order to attract females.
LNCS	Local Nature Conservation Sites
LNR	Local Nature Reserve
LRBI	Lowland Raised Bog Inventory
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NCC	Nature Conservancy Council
NERC Act 2006	The Natural Environment and Rural Communities Act 2006
NGO	Non-governmental organisation
NI	Northern Ireland
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
NVC	National Vegetation Classification
ODPM	Office of the Deputy Prime Minister
OS	Ordnance Survey
PCAIWCG	Property Care Association Invasive Weeds Control Group
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey

PPG	Planning Policy Guidance
PPS	Planning Policy Statement
pSAC	Possible Special Area of Conservation
SAC	Special Area of Conservation
SBI	Sites of Biological Importance
SCI	Site of Community Importance
SEA	Strategic Environmental Assessment
SINC	Sites of Importance for Nature Conservation
SNCI	Site of Nature Conservation Importance
SNH	Scottish Nature Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UK	United Kingdom (England, Scotland, Wales and Northern Ireland)

Appendix A
Target Notes and Photographs

Target Note (TN)	Feature	Photograph of Feature
1	The broken/missing roof tile which offers limited potential for crevice dwelling bat species	
2	The shed at the eastern extent of the garden offers limited bat roosting habitat	
3	The tall ruderal vegetation and compost heap offer limited reptile habitat	

3a	The compost heap	
4	The shrubs and immature trees offer limited bird nesting potential.	

Appendix B
Habitat Map



Appendix C

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive⁵ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

- Countryside and Rights of Way (CROW) Act 2000
- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

Badger

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

- cruelly ill-treat a badger, including use of tongs and digging;
- intentionally or recklessly cause a dog to enter a badger sett;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett⁶ or any part thereof;
- intentionally or recklessly disturb⁷ a badger when it is occupying a badger sett;
- possess or control a dead badger or any part of a badger;
- sell or offers for sale, possesses or has under his control, a live badger; and
- wilfully kill, injure, take, or attempt to kill, injure or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

⁶ A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

⁷ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing: www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring or capturing of Schedule 2 species (all bats);
- deliberate disturbance of bat species as to impair their ability: to survive, breed, or reproduce, or to rear or nurture young; and to hibernate or migrate.
- deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- intentionally (or recklessly in Scotland) kill, injure or take any wild bird;

- intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- intentional or reckless disturbance of dependent young of such a bird;
- in Scotland only, intentional or reckless disturbance whilst lekking; and
- in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- moderate (25-49%) decline in UK breeding population over last 25 years;
- moderate (25-49%) contraction of UK breeding range over last 25 years;
- moderate (25-49%) decline in UK non-breeding population over last 25 years;
- species with unfavourable conservation status in Europe (Species of conservation Concern);
- five year mean of breeding pairs in the UK;
- $\geq 50\%$ of UK breeding population in 10 or fewer sites.
- $\geq 50\%$ of UK non-breeding population in 10 or fewer sites;

- $\geq 20\%$ of European breeding population in UK; and
- $\geq 20\%$ of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non breeding populations in UK.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

- sand lizard (*Lacerta agilis*);
- smooth snake (*Coronella austriaca*);
- natterjack toad (*Epidalea calamita*);
- great crested newt (*Triturus cristatus*); and
- pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- deliberate killing, injuring or capturing of species listed on Schedule 2;
- deliberate disturbance of any Schedule 2 species as to impair their ability to survive, breed, or reproduce, or to rear or nurture young; and to hibernate or migrate.
- deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- deliberate taking or destroying of the eggs of a Schedule 2 species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- adder (*Vipera berus*);
- grass snake (*Natrix natrix*);
- common lizard (*Zootoca vivipara*); and
- slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- intentionally (or recklessly in Scotland) kill or injure these species
- sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale:

- common frog (*Rana temporaria*);
- common toad (*Bufo bufo*);
- smooth newt (*Lissotriton vulgaris*); and
- palmate newt (*L. helveticus*).

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

- mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. Regulation 45 makes it an offence to:

- deliberately pick, collect or destroy a wild Schedule 5 species; and
- be in possession of, or control, transport, sell or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2010.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- Japanese knotweed (*Fallopia japonica*);
- Giant hogweed (*Heracleum mantegazzianum*);
- Himalayan balsam (*Impatiens glandulifera*);
- certain species of rhododendron (*Rhododendron* sp.); and
- certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- plant or otherwise cause these species to grow in the wild.

This legislation makes it an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas; it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- **Special Protection Areas (SPAs):** Terrestrial SPA's are afforded protection by The Conservation (Natural Habitats, &c. Regulations 1994 (as amended) and offshore SPA's are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- **Special Areas of Conservation (SACs):** These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPA's.
- **Ramsar sites:** These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water or peatland and may be natural or artificial, permanent or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000.

National Statutory Designations

- **Sites of Special Scientific Interest (SSSIs):** These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- **National Nature Reserves:** These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys.

National Planning Policy

- The National Planning Policy Framework (2012) replaces the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks through preservation, restoration and re-creation. The protection and recovery of priority species is also included as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

The Shepway district plan includes the following Nature Conservation Policies that are relevant to the site.

- **12.20** 'Biodiversity' (the range of plant and animal species) promotes an attractive and healthy countryside through helping regulate natural processes like climate change and enabling wildlife to adapt to such changing conditions. A species cannot be re-created and their loss will inevitably impact on wider environmental systems. Biodiversity provides a direct human resource including opportunities for providing new and improved medicines, crop and livestock varieties and also potential for employment creation related to land management and tourism. The UK Action Plan for Biodiversity was published by Government in 1994 prompting the identification of costed targets and proposed actions for over 100 species and 14 habitats across the UK. The Kent Biodiversity Action Plan was produced in November 1997 as the County's response to these national initiatives. The District Council is to produce a Local Biodiversity statement in 2002.
- **12.21** Shepway contains a rich diversity of habitats and species. Habitats range from rolling chalk downland to low lying marsh, shingle and dune areas. The Kent Wildlife Habitat Survey records that Shepway has the second highest number of habitats for a District in Kent. In recognition of the District's many valuable nature conservation resources, as at November 2001, the following designations have been made or are proposed.

 - Substantial parts of Dungeness and the Folkestone to Etchinghill Escarpment contributes to the "Natura 2000" series, through the identification of internationally important areas under European Law (also see paragraphs 12.35 and 12.36)
 - English Nature has designated 15 Sites of Special Scientific Interest (SSSIs) due to their particular scientific and wildlife value. Substantial parts of Dungeness and the Folkestone to Etchinghill Escarpment SSSIs have also been identified for their international nature conservation importance.
 - The Dungeness National Nature Reserve was designated in June 1998. The Council has established part of the Folkestone East Cliff and Warren as a Local Nature Reserve and proposes others within the District as suitable opportunities arise.
 - The Kent Wildlife Trust has identified 37 Wildlife Sites (formerly known as Sites of Nature Conservation Interest (SNCIs) of local or countywide wildlife importance.
- **12.22** The above hierarchy of nature conservation designations is identified in Policies CO8, CO9, C10 and CO14 below and is shown on the Proposals Map. Individual nature conservation designation sites are listed Appendix 8. In addition, Shepway contains a broad range of important species, including those protected under law. Due to changing population, roosting or feeding locations, the occurrence of these species will often not be restricted to designated sites. Similarly, other habitats and landscape features of importance for nature conservation such as ponds, trees, hedgerows and other vegetation including old pasture, can also be found throughout the district. Policy CO11 seeks to protect wildlife features outside of nature conservation designations for their intrinsic nature conservation importance or contribution to wider biodiversity objectives (through for example providing a link between different habitats). A number of the Structure Plan's Environment Policies also deal with nature conservation issues.

- **POLICY CO21** The District Planning Authority will grant planning permission for an extension or alteration to an existing dwelling in the countryside subject to proposals meeting all of the following criteria:
 - a) the dwelling to be extended or altered is in a lawful residential use;
 - b) the proposal is acceptable within the terms of Policy BE8;
 - c) the proposal would not visually dominate or substantially alter the character of the existing dwelling;
 - d) development would not adversely impact on the quality and character of the landscape or be detrimental to the rural setting.

Appendix D Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker, t=tree, h=hedge, w=water = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
<i>Cupressus spp.</i>	Cypresses	O	t
<i>Epilobium sp.</i>	Willowherbs	O	
<i>Festuca pratensis</i>	Meadow fescue	A	
<i>Holcus lanatus</i>	Yorkshire-fog	A	
<i>Lolium perenne</i>	Perennial rye-grass	O	
<i>Plantago lanceolata</i>	Ribwort plantain	O	
<i>Ranunculus acris</i>	Meadow buttercup	R	e
<i>Rubus fruticosus agg.</i>	Bramble	O	g
<i>Urtica dioica</i>	Common nettle	F	
<i>Veronica chamaedrys</i>	Germander speedwell	R	e
<i>Achillea millefolium</i>	Yarrow	F	
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	R	

<i>Cerastium fontanum</i>	Common mouse-ear	R	
<i>Cirsium arvense</i>	Creeping thistle	R	
<i>Glechoma hederacea</i>	Ground-ivy	R	
<i>Hieracium spp.</i>	Hawkweeds	R	
<i>Hypochaeris radicata</i>	Cat's-ear	R	
<i>Ilex aquifolium</i>	Holly	R	t
<i>Lolium perenne</i>	Perennial rye-grass	F	
<i>Poa annua</i>	Annual meadow-grass	O	
<i>Ranunculus repens</i>	Creeping buttercup	R	e
<i>Rubus fruticosus agg.</i>	Bramble	O	
<i>Rumex acetosella</i>	Sheep's sorrel	R	
<i>Rumex crispus</i>	Curled dock	R	e
<i>Rumex obtusifolius</i>	Broad-leaved dock	F	e
<i>Sambucus nigra</i>	Elder	O	T
<i>Senecio jacobaea</i>	Common ragwort	R	
<i>Stellaria graminea</i>	Lesser stitchwort	R	
<i>Trifolium pratense</i>	Red clover	O	
<i>Trifolium repens</i>	White clover	R	

<i>Ligustrum vulgare</i>	Wild Privet	O	
<i>Buddleja</i>	Buddleja	O	t
<i>Digitalis purpurea</i>	Fox glove	O	t
<i>Dipsacus fullonum</i>	Teasel	R	t
<i>Rosa canina</i>	Dog Rose	R	p
<i>Acer campestre</i>	Field maple	R	t
<i>Sambucus nigra</i>	Elder	O	t
<i>Iris foetidissima</i>	Stinking Iris	L	e
<i>Arum maculatum</i>	Lords and ladies	L	
<i>Galium aparine</i>	Cleavers	F	
<i>Rosmarinus officinalis</i>	Rosemary	O	
<i>Mentha sp</i>	Mint sp	O	
<i>Petroselinum crispum</i>	Parsley	L	e
<i>Helminthotheca echioides</i>	Bristly ox tongue	F	
<i>Narcissus sp</i>	Daffodil	L	p
<i>Salvia officianalis</i>	Common Sage	L	
<i>Salix pentandra</i>	Bay Willow	O	t
<i>Boxus sempervirens</i>	Common box	L	p

<i>Lunaria annua</i>	Honesty	L	
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Appendix E Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.), (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.) (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.), (*O. x hastii*), (*O. macrodonta*) and (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel (*Corylus avellana*) N (*C. maxima*) NN

Viburnum (*Viburnum* spp.), wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) E Note: *V. lantana* can become invasive in more open habitats.

Butterfly bush (*Buddleja* spp.), (*B. alternifolia*), (*B. globosa*) NN

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.), wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.), edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.), edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.), summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.) (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Nasturtium (*Tropaeolum majus*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. N.B. *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N

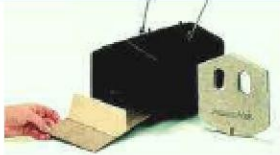
Lesser celandine (*Ficaria verna*) N

Appendix F Bat and Bird Box Designs

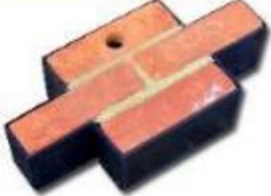
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Bird Boxes

COMMON GARDEN BIRDS (MULTI-PURPOSE HOLE FRONTED)

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	2M Schwegler Nest Box Hole-fronted 32mm entrance hole	17 x 16 x 35	Multi-purpose , including: great-, blue-, marsh-, coal- and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrows, and occasionally bats.	It should be freely suspended and has a conical roof. These features protect against cats and deter martens. It is very popular in private gardens and especially around fruit trees, mainly in areas where the trees are short and have many branches. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	2HW Schwegler Nest Box	30 x 20 x 20	Suitable for: black redstart, pied wagtail, grey spotted flycatcher, and occasionally robin and wren. It can also be used to attract dippers and grey wagtails provided that the wooden insert is removed.	It should be attached to walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant and metal supports. The ideal location for dippers and wagtail is near to natural running water and under bridges.
	Vivara Pro WoodStone 32mm Nest Box	17.7 x 18.8 x 25	Multi-purpose , including: blue-, great- and coal tits, pied flycatchers, nuthatches, tree- and house sparrows.	It should be attached to semi-mature/mature trees; attached to a tree trunk. It should be sited between 1.5 m and 3 m high, and should be sited higher if your area has a particularly high cat population.

	Traditional Wooden Bird Nest Box Hole-fronted 25mm entrance hole	18 x 14 x 26	Multi-purpose , smaller tit species such as blue- and coal tits.	boxes can be installed on a tree or wall and should be placed two to four metres above ground. There should be a clear flight path to the entrance hole and the boxes should be placed so that the entrance is not exposed to strong sunlight or winds.
	CedarPLUS Modern Nest Box Hole-fronted 26mm entrance hole	17.5 x 15.6 x 37	Multi-purpose , blue-, marsh- and coal tit (and possibly wren).	boxes can be installed on a tree or wall and should be placed 2 to 4m above ground. There should be a clear flight path to the entrance hole and the boxes should be placed so that the entrance is not exposed to strong sunlight or winds.
	CedarPlus Classic Nest Box Hole-fronted 26mm entrance hole	16 x 16 x 31	Multi-purpose , blue-, marsh- and coal tit (and possibly wren).	boxes can be installed on a tree or wall and should be placed 2 to 4m above ground. There should be a clear flight path to the entrance hole and the boxes should be placed so that the entrance is not exposed to strong sunlight or winds.
	Multi Bird Nest Box <u>Hole-fronted:</u> 25, 28 or 32mm entrance hole; or, <u>Open fronted.</u>	14 x 13 x 30	n: blue-, coal- and marsh tit, tree creeper and very small birds. n: tree sparrow, great- and crested tit. n: tree sparrow, great- and crested tit, nuthatch, pied flycatcher and redstarts.	<u>fronted:</u> on a tree or wall and should be placed 2 to 4m metres above ground. There should be a clear flight path to the entrance hole and the boxes should be placed so that the entrance is not exposed to strong sunlight or winds. <u>fronted:</u> best placed in cover such as ivy, hedgerow areas or other climbing plants so that the nest entrance is secluded and hidden from predators.

			Open front: wagtails, robin, flycatchers, blackbird, wren, etc.	
	Stockholm Birch Log Nest Box Hole-fronted 32mm entrance hole	20.5 x 17 x 27	tit, flycatchers and house sparrow.	to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. en 1.5m and 3m high, and should be sited higher if your area has a particularly high cat population.
	Portland Slate Nest Box Hole-fronted 28mm entrance hole	12 x 13 x 22.5	and great tit.	to a semi-mature/mature tree trunk. en 1.5m and 3m high, and should be sited higher if your area has a particularly high cat population.
	Bird Brick House Entrance holes: 28mm (round) 30mm (square) 34mm (round) 40mm (round) 50mm (round) 60mm (round) 75 mm (crescent)	Custom.	<u>28mm (round)</u> : blue-, coal-, crested- and great tit and wren. <u>30mm (square)</u> : grey wagtail. <u>34mm (round)</u> : house sparrow, nuthatch, pied flycatcher and tree creeper. <u>40mm (round)</u> : common- and black redstart. <u>50mm (round)</u> : starling. <u>60mm (round)</u> : spotted flycatcher. <u>n (crescent)</u> : swift.	Fitted into the walls of brick built buildings, either retrospectively post construction or during construction. www.birdbrickhouses.co.uk/index.html

	Terracotta Nesting Pot Hole-fronted 32 or 45mm entrance hole	32mm hole: 10.5 x 10.5 x 20 45mm hole: 13 x 13 x 22	on garden birds: tree- and house sparrow, great tit, nuthatch and pied flycatcher.	Hung on an external wall. en 1.5m and 3m high, and should be sited higher if your area has a particularly high cat population.
	Tall Roosting Nest Pocket	9 x 9 x 23	urpose, small birds including wrens and gold crests.	nests are light and easy to fix in hedgerows, ivy, on pergolas, fencing, walls and small trees or bushes.

GARDEN BIRDS (OPEN FRONTED)

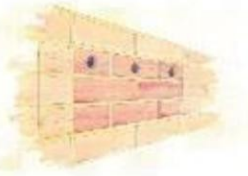
Example	Type	Dimension D x W x H (cm)	Target species	Location
	2H Schwegler Robin Box Open-fronted	20 x 15 x 20	Robins, as well as other small species such as black redstart, pied wagtail, spotted flycatcher and wren.	Outside walls of houses, barns, garden sheds, etc. It is designed to be hung so that the entrance is to one side (at an angle of 90° to the wall). It is important not to hang this type of box on a tree or bush because small predators can enter through the unprotected opening.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Robin Nest Box	15 x 13 x 30	Robins, as well as wagtails, flycatchers, blackbirds and wrens.	Best placed in cover such as ivy, hedgerow areas or other climbing plants so that the nest entrance is secluded and hidden from predators.
	CedarPlus OpenFront Wooden Flycatcher Box Entrance size: 115mm	17.5 x 15.6 x 31.8	Flycatchers.	On a wall or tree trunk, between 2 to 4m above the ground. If possible, place it in a creeping plant (such as ivy or rose) with an open outlook.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Grey Wagtail Nest Box	31 x 19.5 x 17	Grey wagtail.	On a wall, preferably close to fast flowing water, such as on the underside of a bridge.
	1HE Schwegler Brick Box	15 x 28 x 15	Black redstart, pied wagtail, spotted flycatcher and occasionally house and tree sparrow.	At least 2m above the ground, on (with mounting bracket) or within external walls.
	1ZA Schwegler Wren Roundhouse	18.5cm diameter	Wren. Also blue-, coal- and great Tits, as well as tree and house sparrows if hung in a totally unobstructed place.	Hang the nest box in undergrowth, in a shady place. It can also be placed upon a pile of brushwood or garden clippings, for example. If hung in a totally unobstructed place it will also attract other types of birds that nest in holes and cavities, including

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Tall Roosting Nest Pocket	9 x 9 x 23	Multipurpose, small birds including wrens and gold crests.	The nests are light and easy to fix in hedgerows, ivy, on pergolas, fencing, walls and small trees or bushes.

SPECIES SPECIFIC (HOUSE- / TREE SPARROW)

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Terraced Sparrow Box - Smooth Brick or Custom Brick Facing 35mm entrance hole	15 x 44 x 21.5	House sparrow.	Fitted into the walls of brick built buildings, either retrospectively post construction or during construction. Preferably under the eaves and/or gables. The box can be ordered in standard Staffordshire Smooth brick (Red or Blue), as an unfaced box which can be rendered to match your building or it can be made to order and faced in brick to match your building.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Sparrow Box 34mm entrance hole	Custom.	Sparrows.	Fitted into the walls of brick built buildings, either retrospectively post construction or during construction. http://www.birdbrickhouses.co.uk/index.html

Bat Boxes

ACCESS TILES

Example	Type	Dimension D x W x H (cm)	Target species	Location
 	1FE Schwegler Bat Access Panel Optional Back Plate, to create a bat box.	8 x 30 x 30	as known to use buildings e.g. pipistrelles, long-eared bats, Natterer's, whiskered, Brandt's, Alcahio (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely). unsuitable for horseshoe bats as they need fly-in access.	ularly useful when renovation or conservation work is being undertaken in buildings already containing bat roosts. integrated within masonry or insulation. It can also be attached to the underlying structure using two screws. It can be over-painted as required using air-permeable exterior wall paint. Alternatively, the 1FE can be set into masonry and rendered so that only the entrance is visible. ould be installed at the top of the building as the bat are more likely to find the access and is safe from anyone/thing tampering with the panel. Be note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Bat Access Clay Tiles Lap (min.): 65mm Gauge (max.): 95mm	16 (D) x 25.5 (W)	as known to use buildings e.g. pipistrelles, long-eared bats, Natterer's, whiskered, Brandt's, Alcahoo (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely). unsuitable for horseshoe bats as they need fly-in access.	se made access points within roof tiles or ridge tiles. note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

COLONY BOXES

Example	Type	Dimension D x W x H (cm)	Target species	Location
	1FQ Schwegler Bat Roost (For External Walls)	9 x 35 x 60	Species known to use buildings e.g. pipistrelles, brown long-eared, Natterer's, whiskered, Brandt's, Alcathoe (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely).	On external or internal walls (e.g. within a loft space or inside historic buildings). A minimum of 3m above the ground and where there is a clear flight path for bats entering and leaving. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	1FS Schwegler Large Colony Bat Box	38 x 38 x 44	Particularly attractive to noctule, Nathusius' pipistrelle and brown long-eared bat. Suitable for both summer and winter quarters.	On trees and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	1FW Bat Hibernation Box	38 x 38 x 50	as known to use bat boxes e.g. pipistrelles, brown long-eared bat, Bechstein's, noctule and Leisler's. both for hibernation in winter and for encouraging large colonies in summer.	On trees and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	1MF Bat and Swift Nest Box With or without bat slope	Without bat slope: 22.5 x 43 x 46 With bat slope: 22.5 x 43 x 70	Small crevice-dwelling bats e.g. pipistrelles Two top compartments designed for swifts (both with and without the bat slope).	On the surface of exterior walls (with included metal mounting plate) or in the brickwork of a wall, with the box flush with the face of the wall (with bat slope). Ideally at least 6 to 7m above the ground with an unobstructed access. A clear distance (drop) below the box is recommended (preferably 5m or more). Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	1WQ Schwegler & Winter Roost	12 x 38 x 58	Suitable for typical building-inhabiting species e.g. pipistrelles or serotine. In areas with existing bat colonies also noctule or Bechstein's.	On external or internal walls (e.g. within a loft space or inside historic buildings). A minimum of 3m above the ground and where there is a clear flight path for bats entering and leaving. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	2FS Schwegler Bat Colony Box	28 x 28 x 44	Designed for smaller species e.g. pipistrelles, and barbastelle. The narrow entrance prevents birds, dormice, mice and larger species of bat from accessing the box.	On trees and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	3FF Schwegler Bat Box With or without inspection hatch.	20 x 27 x 43	Soprano pipistrelle, noctule and species that tend to roost in caves, e.g. brown long-eared, Natterer's, whiskered, Brandt's, Alcahoe (assumed based on current evidence), Daubenton's, Leisler's (occasionally), barbastelle (rarely).	On trees at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	3FS Schwegler Bat Colony Box	28 x 28 x 44	Designed for smaller species e.g. pipistrelles, and barbastelle. The narrow entrance prevents birds, dormice, mice and larger species of bat from accessing the box.	On trees and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
 Small Red 215 x 215 mm	Ibstock Enclosed Bat Box 'B' Red Blue Buff	Small: 10.5 x 21.5 x 21.5 Large: 10.5 x 21.5 x 29	Small crevice-dwelling bats e.g. pipistrelles.	In the brickwork of a wall, with the box flush with the face of the wall. Ideally at least 3 to 6m above the ground with an unobstructed access. A clear distance (drop) below the box is recommended (preferably 5m or more). Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	Ibstock Enclosed Bat Box 'C'	Small: 10.5 x 21.5 x 21.5 Large: 10.5 x 21.5 x 29	Small crevice-dwelling bats e.g. pipistrelles.	In the brickwork of a wall, with the box flush with the face of the wall. Ideally at least 3 to 6m above the ground with an unobstructed access. A clear distance (drop) below the box is recommended (preferably 5m or more). Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.



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