Ecological Appraisal of The Old Builders Yard, Grange Lane, Startley, Wiltshire, SN15 5HG.

Client	LPC
Reference	L1112.040
Issue	One
Date	18 July 2023

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NATURAL SOLUTIONS

Non-technical Summary

Background

In May 2023, Crossman Associates was commissioned by LPC to undertake an ecological appraisal of Martin's Yard a small, former builder's yard adjacent to Grange Lane, Startley, Wiltshire, SN15 5HG. Proposals are to clear the site and construct two number dwellings.

Methodology

The survey followed standard Phase 1 habitat survey methodology, that was extended to record provisional signs or evidence of protected or notable species. The survey work was undertaken by Fairbrass Knowles, an experienced ecologist, full member of CIEEM and licenced bat ecologist.

Results

The site is located fairly centrally within the small rural settlement of Startley and consists of a former builder's yard that consists of a rectangular plot that amounts to approximately 1,500 m^2. The plot provides 5 dilapidated buildings that formerly served as workshops, stores and for keeping poultry. There is also areas of unmanaged vegetation.

One building provides bats with moderate roosting suitability and two provide bats with low roosting suitability. One tree provides bats with moderate roosting suitability.

Unmanaged vegetation provides habitat for nesting birds, common reptiles and small mammals.

Recommendations

It is recommended that the following is undertaken as part of the proposals;

- 3 buildings and 1 tree require additional bat surveys.
- Reptile presence / absence survey.
- New dwellings to be fitted with integrally fitted bat and bird boxes.

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1. Background

1.1. In May 2023, Crossman Associates was commissioned by LPC to undertake an ecological appraisal of Martin's Yard which is a small, former builder's yard located adjacent to Grange Lane, Startley, Wiltshire, SN15 5HG (site Ordnance Survey grid reference ST 94434 82532).

1.2. Figure 1 under Appendix I provides a location map.

1.3. The objectives of the ecological appraisal were to;

- Produce a map of existing habitats on site
- Assess the likely presence of any rare or notable species
- Identify any planning or policy constraints relevant to the proposals
- Provide recommendations for further study, mitigation or compensation as appropriate.

Site Description

1.4. Martin's Builders Yard occupies a rectangular plot of land located centrally within the small village of Startley and adjacent to the eastern site of Grange Lane, which is the main throughfare road. The plot amounts to approximately 1,500 m^2 and includes five buildings that formerly acted as workshops and stores and a small poultry shed. The main building remains in intermittent use.

1.5. A lack of recent management has allowed a large portion of the site to become overgrown with grass, ruderals, tall herb and bramble scrub. A short length of managed native hedgerow and four trees are also present.

1.6. The yard occupies a central location within the village, immediate surroundings to the north, east and south are characterised by two medium-sized mixed use, hedge bound fields, with a few scattered dwellings and farmsteads. To the west lay scattered groups and lines of generally well-spaced dwellings and occasional farmsteads that occupy the sides of Grange Lane and extend both north and south.

1.7. The wider landscape is dominated by a largely agrarian landscape which to the east consists of mainly intensively farmed fields, while to the north, south and west areas of agriculture tend to be less intensively managed.

1.8. The closest area of significant woodland is Seagry Wood which is situated approximately 700 m to the south-west.

Ponds

1.9. Two ponds lay within a 250 m radius to the site as outlined below (and shown on Figure 3, Appendix I).

- Pond 1 is a large circular pond that is situated on a farm and approximately 170 m to the north-west.
- Pond 2 is a small pond that is situated on a field boundary approximately 160 m to the north.

Proposals

1.10. Proposals are to redevelop the site for residential with two detached dwellings each with gardens proposed. A soft landscaping plan will include new species rich native hedgerows bounding the site and dividing the two plots.

2. Methodology

Desktop Study

2.1. The MAGIC website was accessed to gain information on any statutory site designations within 2 km of the site. This was extended to 4 km for bats.

National Planning Policy and Legislation

2.2. National Planning Policy and legislation has been reviewed for policies and laws that relate to nature conservation relevant to the site.

Field Survey

2.3. The ecological appraisal follows standard Phase 1 habitat survey methodology, which is a survey method and habitat classification system that was developed by the Nature Conservation Council, now Joint Nature Conservation Committee (JNCC, 2003) to map habitats and land use categories to a 'consistent level and accuracy'. Habitats present on site are shown in Figure 1, which is the Phase 1 Habitat Map, and are also described within the text below. Where appropriate, Target Notes are used within the map to locate features or areas of interest that are described in the text.

Species Observations

2.4. The Phase 1 habitat survey is extended to also record evidence of protected or notable species and assesses the suitability of the habitats on-site and within the accessible surroundings of the site to support such species.

Site Evaluation

2.5. The site evaluation for the habitat areas and species present (where appropriate) is based on published criteria given in the CIEEM guidelines for ecological impact assessment. Values are assigned between International Value and Negligible Value to habitats that are likely to be directly or indirectly affected by the proposed development.

2.6. The value categories used the assessment are as follows:

- International – Europe
- National – England
- Regional – South-west
- District – Wiltshire
- Local – Startley
- Site – Within the immediate zone of influence

2.7. The conservation and ecological status of the site is assessed using the Ratcliffe criteria (1977).

3. Results

Desktop Study

3.1. The MAGIC website informed of one statutory wildlife laying within 2 km of the site.

Harries Ground, Rodbourne, Site of Special Scientific Interest (SSSI).

3.2. Harries Ground provides an area of approximately 6.87 hectares and is situated approximately 1.8 km to the west of the site. The SSSI provides an area of nationally important species rich neutral grassland. The site also contains a population of a nationally scarce butterfly, the marsh fritillary *Euphydras aurinia.*

3.3. The proposals to redevelop a small former builder's yard to provide 2 number dwellings is assessed to result in no significant impact to the above discussed SSSI.

3.4. There are no sites specifically designated for bats within 4 km of the site.

Planning Policy

3.5. National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government' planning policies for England and how they should be applied to planning applications;

<u>Conserving and enhancing the natural environment</u>

- Planning decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

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

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

<u>Habitats and Biodiversity</u>

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

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Field survey

3.6. The habitats are described in the paragraphs below and mapped on Figure 1, Appendix I.

3.7. Habitats are considered to fall into the following categories;

- Tall herb and ruderal
- Scrub
- Grassland
- Hedgerows
- Trees
- Hard standing / walls
- Buildings

Tall herb and ruderal

3.8. A lack of recent management has allowed portions of the site to become well-established with tall herb and ruderal vegetation. The most established areas are present along the north-west boundary, along the north end of the eastern boundary and along the southern end. Vegetation is particularly dense within the old poultry run, which occupies the south-east corner.

3.9. Species include nettle *Urtica dioica,* common hog weed *Heracleum sphondylium,* spear thistle *Cirsium vulgare,* cow parsley *Anthriscus sylvestris,* ground elder *Aegopodium podagraria,* ribwort plantain *Plantago lanceolata,* cranesbill *Gerranium sp,* broad-leaved dock *Rumex obtusifolius*, white dead nettle *Lamium album*, red campion *Silene dioica,* cleavers *Galium aparine* and forget-me-not *Myotis sylvatica.*

Scrub

3.10. Small areas of mainly light bramble scrub *Rubus fruticosus agg* are also present in association with the areas of tall herb and ruderal at the northern end of the site.

A more substantial and well-established thicket is present approximately mid-way along the eastern boundary.

Grassland

3.11. The majority of the site consists of what was originally managed lawns. Through a lack of recent management, the grass areas present at the northern and southern ends (Target Notes 1) has been left to follow a largely natural life cycle and these areas have become tall and dense with a well-established herb content. The central area is less well established and is relatively sparse, this is likely due to the area having a densely compacted layer of chippings, which has hindered the colonization of vegetation, highlighted by Target Note 2.

3.12. Grass species include sweet vernal grass *Anthoxanthum odoratum,* cock's-foot grass *Dactylis glomerata,* perennial rye-grass *Lolium perrene* and other domestic grass species. Non-grass species include self-heal *Prunella vulgaris,* ground ivy *Glechoma hederacea,* creeping buttercup *Ranunculus repens,* chick weed *Stellaria media,* dandelion *Taraxacum officianale,* black medic *Medicago lupulina,* ground elder and daisy *Bellis perennis,*

Hedgerow

3.13. An approximately 25 m length managed native hedge is present along the northern end of the western boundary and in alignment with Grange Lane. The hedge is dominated with hawthorn *Crataegus monogyna,* with occasional ash and elder which have self-seeded. The hedge is approximately 3 m high and 2 m wide.

3.14. The field layer is dominated by ivy *Hedera helix.*

Trees

3.15. The site has four trees which are described below. The trees are labelled on Figure 2; the habitat map as TR1, TR2, TR3 & TR4. For bat assessment refer to Table 1.

Tree TR1

3.16. Tree TR1 is the only ecologically significant tree. The tree is present in the north-west corner and is an overly mature short trunked crack willow *Salix fragilis.* The tree has a trunk height of approximately 2 m which might be due to historical pollarding. Significant cavities and areas of decay are associated with the trunk and at the unions of the principal boughs. Despite the decay the tree appears to be growing well with dense foliage.

Tree's TR2 & TR3

3.17. Both trees are growing close together close to the northern end of the eastern boundary. Tree TR2 is a small Alder buckthorn *Frangula alnus,* tree TR3 is a small apple tree *Malus domesticus.* Both trees appears to be in a healthy condition.

Tree TR4

3.18. Tree TR4 is situated close to the south-east corner. The tree is a tall mature Norway spruce *Picea abies*. The truck has a light growth of ivy along much of its length. The tree appears to be in a healthy condition.

Hardstanding & walls

3.19. An area of hardstanding is present towards the northern end of the western boundary and forms part of one of the two entrances. The area has a light covering of ruderal growth.

3.20. Low height bays used to store building materials are present midway along the eastern boundary and along the southern boundary. The bays are created from single skin concrete block. One bay along the eastern boundary and one bay along the southern boundary are in use as compost heaps, shown as target Notes T3.

Species observations

Flora

3.21. No non-native invasive species that are listed on Schedule 9 of the Wildlife and Countryside Act (1981) as Amended were noted during the visit; however, it is not possible to confirm with certainty that no such species are present.

3.22. The site is a former builder's yard which since the cessation of activities has lacked any significant management this allowed areas of the site to become overgrown with vegetation consisting largely of common pioneer species that have colonised the site through natural succession; these areas are composed of a variety of species which largely follow a natural cycle of flowering, fruiting, and setting seed.

Invertebrates

3.23. The site is likely to support a moderate assemblage of the commoner species of invertebrates associated with a farmland habitat. Unmanaged vegetation is likely to follow a natural cycle of flowering and setting seed and so will provide a supply of nectar, fruits and seeds.

Amphibians

3.24. Areas of overgrown vegetation provide shelter and refuge for common and widespread amphibians such as common toad *Bufo bufo* and common frog *Rana temporaria.* On site habitat also provides suitable terrestrial habitat for great crested newt *Triturus cristatus*.

Great crested newt

3.25. There are no on-site watercourses and according to Ordnance Survey mapping there are 2 number ponds that occur within 250 m of the site and a further 8 occurring within a 500 m radius of the site.

3.26. Great crested newts are known to occur in the greatest numbers within 250 m of suitable breeding ponds, so the density of individuals gradually decreases away from the breeding pond (Froglife 2001).

EDNA survey

3.27. An eDNA assessment was undertaken of local ponds that were accessible by permission from landowners (refer to Figure 3, Appendix I).

3.28. The eDNA survey result provided a positive result indicating that the pond is inhabited by great crested newt which is probably using it as a breeding site.

Natural England Rapid Risk Assessment Tool for great crested newt.

3.29. The Natural England Rapid Risk Assessment Tool was consulted and after data was entered into the calculator it informed that even if the two number ponds were to be used as a breeding site for great crested newt the development is of a sufficient size and distance from the ponds that an offence is **highly unlikely.**

Reptiles

3.30. The site provides potential habitat for reptiles with areas of overgrown vegetation, compost heaps and piles of old building materials. These habitats provide foraging, concealment and hibernation opportunities which are particularly favourable for slow worm *Anguis fragilis* and grass snake *Natrix natrix Helvetica*.

Birds

3.31. The site offers potential nesting and sheltering opportunities in association with 4 of the buildings, while the denser areas of unmanaged vegetation and the 2 larger trees (Trees TR1 & TR4). Overgrown areas of vegetation offer a foraging resource in the form of insects, seeds and fruit. Wren *Troglodytes troglodytes*, dunnock

Prunella modularis and blackbird *Turdus merula* were recorded on site during the survey.

3.32. Buildings B2 & B3 showed evidence of nesting jackdaw *Corvus monedula.*

- On the day of the survey (1 June 2023) a recently fledged jackdaw was observed emerging from the brick chimney stack present on the principal building which forms the northern building on building B2. Shown as Target Note T4 on Figure 2 the habitat map.
- An inactive jackdaw nest is present on an opening on the southern elevation of building B3. Shown as Target Note T5 on Figure 2 the habitat map.

3.33. Ivy has also encroached the exteriors of 3 of the buildings on site as outlined below. The ivy provides a suitable nesting location for a number of commonly encountered garden birds including wood pigeon *Columba palumbus* and blackbird *Turdus merula.*

- Building B1 – Moderate covering of ivy on the northern elevation.
- Building B3 – Moderate covering of ivy on the south-west corner.
- Building B4 – Moderate covering of ivy on the south-west corner.

Hedgehog

3.34. The site provides habitat for hedgehogs *Erinaceous europaeus*. Areas of unmanaged vegetation offer hedgehogs potential foraging, sheltering and hibernation habitat.

Badgers

3.35. There are no badger setts on site and no badger setts were recorded in close proximity of the site, where access allowed for inspection.

Bats

3.36. The site is located within a village setting and provides bats with sub-optimal foraging and commuting opportunities. The site on its own is small (C.1,500 m^2) and on its own provides bats with no significant habitat component.

3.37. The site might be used to a lesser extent by more light/urban tolerant bats (typically common pipistrelle) during foraging and commuting activity in conjunction with habitats with the wider surrounding landscape.

Buildings

3.38. The site has 5 number building's and 1 number significant tree and these are described in the table below.

Table 1: structures / trees and bat suitability

	Feature	Feature Description	Bat suitability
Building B1 **Small timber poultry shed**	Overview	A small timber-built poultry shed. The shed is approximately 3 m x 2 x 2 m high. The shed is in an advanced state of dilapidation and overall, is assessed to provide bats with no significant roosting suitability.	Negligible Suitability ☒
Building B2 **Main workshop**	Overview	Building B2 forms the principal building and consists of a collection of simple single storey interconnected, DIY built buildings that are built around an old rectangular brick built single storey industrial building with a traditional clay tile double pitched roof. In total the buildings collectively cover an area of approximately 200 m^2. Overall, the buildings collectively are in a ramshackle state but elements remain in use as a carpentry workshop and for general storage. The key Potential Roosting Feature's (PRF's) are as follows;	Moderate Suitability ☒

	Feature	Feature Description	Bat suitability
		The roof of the main brick building, is a traditional clay Roman tile design, which is in a poor state, leading to the presence of numerous and significant crevices, the timber feather edge cladding present on the sides of the eastern most building and an adjacent smaller building, of which many sections are warped and gappy, and a significantly sized, hidden roof void associated with the central building that occupies the western side and has a double pitched corrugated steel sheet roof. During the survey no bats or evidence of bats was found to be present. Refer to photographs 2, 3, 4, 5 & 7.	
Building B3	Overview	Building B3 consists of a large, old and simply constructed rectangular single storey shed type building with sides of both corrugated tin and timber feather edge cladding. The roof is a double pitched design clad with a single skin of corrugated steel sheets. The building has a single bay with a roof void with a basic floor. The building formerly acted as a general store / workshop.	Low Suitability ☒

	Feature	Feature Description	Bat suitability
		Built of the eastern side elevation is a newer and smaller building, which is a timber framed and feather edge clad storeroom, with a low mono-pitched roof clad with mineralised felt. The building provides a couple of rooms. In total the buildings collectively cover an area of approximately 80 m^2. The main building is rather dilapidated but remains watertight, the smaller extension remains in a sound state. The key Potential Roosting Feature's (PRF's) are as follows; Accessible roof void. Crevices associated with corrugated steel sheets, roof and sides. During the survey no bats or evidence of bats was found to be present. Refer to photographs 9 & 10	
Building B4.	Overview	A simple rectangular shaped single storey building with walls of solid red brick and a simple double pitched roof of corrugated steel roof	Low Suitability ☒

	Feature	Feature Description	Bat suitability
Brick shed		sheets. Internally the building provides one open bay with no roof void. The building measures approximately 26 m^2. The building is in a rather tired state and has a missing roof sheet on the eastern elevation. The key Potential Roosting Feature's (PRF's) are as follows; Accessible interior Crevices associated with the corrugated roof sheets. During the survey no bats or evidence of bats was found to be present. Refer to photographs 11, 12 & 13.	
Building 5 **Unfinished shed**	Overview	A small rectangular shed type building that is unfinished. The building consists of only 3 sides which are brick and block and the timber framework of the roof with no tiles. The building provides bats with no roosting suitability. Refer to photograph 14.	Negligible Suitability ☒

	Feature	Feature Description	Bat suitability
Tree TR1	Crack willow	Tree TR1 is the only ecologically significant tree. The tree is present in the north-west corner and is an overly mature short trunked crack willow *Salix fragilis.* The tree has a trunk height of approximately 2 m which may be due as a result of historical pollarding. Significant cavities and areas of decay are associated with the trunk and at the unions of the principal boughs. Despite the decay the tree appears to be growing well with dense foliage.	Moderate Suitability ☒

Evaluation

3.39. The site consists of a former builder's yard within a rural village setting, historically the site has been well-managed, however since closing down the management of the site has fallen behind allowing areas of former lawn to become very overgrown and colonised by common ruderal and tall herb species, which has become well-established at the northern and southern ends providing an element naturalness.

3.40. Habitats on site are widespread and common within the surrounding landscape and therefore rarity is low. An element of fragility may also come about if the site proves to support protected species.

3.41. Overall, the site is considered to have **Local value.**

Bats

Buildings B1 & B5

3.42. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed in association with either building B1 or B5.

3.43. Neither building provides bats with any significant bat roosting suitability and as such both are assessed to provide bats with Negligible Roosting Suitability.

3.44. Buildings B1 & B5 are all assessed as providing bats with Negligible Roosting Suitability.

Building B2

3.45. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed in association with building B2.

3.46. The building consists of a collection of interconnected and dilapidated buildings that provide bats with a variety of roosting potential as highlighted below.

- Numerous crevices associated with the traditional Roman clay tile roof and the corrugated sheet roofs.
- Numerous crevices associated with the tired feather edge timber cladding which in various places has fallen away and / or warped. Further crevices associated with corrugated cladding sheets, which by design provides significant gaps.
- A large hidden void associated with the main carpentry workshop.

3.47. Building B2 is assessed to provide bats with Moderate Roosting Suitability.

Buildings B3 & B4

3.48. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed in association with buildings B3 & B4.

3.49. Buildings B3 & B4 are less complex and simple in construction. Both buildings are, however, fully accessible to bats and provide bats with potential roosting opportunities which include open roof structures and gaps and crevices associated with the corrugated roofs.

3.50. Buildings B3 & B4 is assessed to provide bats with Low Roosting Suitability.

4. Recommendations

4.1. The recommendations in the paragraphs below are provided to help ensure that wildlife and important ecological features are protected during the course of works. Recommendations also set out mitigation measures to minimise harm where this cannot be avoided and provide compensation measures to allow the proposals to meet current legislative and planning policy objectives.

4.2. The Natural Environment and Rural Communities (NERC) Act (2006) states that a public authority must 'in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.

4.3. Under the Government's National Planning Policy Framework (NPPF) opportunities to incorporate biodiversity in and around developments should be encouraged.

4.4. Paragraph 174b) of the NPPF (2018) states 'Plans should ...identify and pursue opportunities for securing measurable net gains for biodiversity' and Paragraph 175d) states that '…opportunities to incorporate biodiversity improvements in and around developments should be encouraged especially where this can secure measurable net gains for biodiversity'.

Species recommendations

Bats

4.5. In the UK all species of bats are protected under the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Under this legislation it is a strict liability offence to

injure or destroy a bat or to disturb damage or destroy the resting place of a bat. Under this legislation the UK is obliged to fully take into account bats within the planning process and the level of bat activity on-site must be fully assessed prior to the assessment the planning application.

Building B2

4.6. Building B2 has been assessed to offer **Moderate Suitability** for roosting bats. Therefore, in line with survey guidance published by the Bat Conservation Trust (2016) it is recommended that two activity surveys are undertaken between May and September with at least one of the surveys conducted between May and August.

4.7. If a bat roost is recorded, the results of the survey would inform a mitigation and compensation strategy that will guide the development and safeguard the conservation status of bats. There are opportunities within the new development to provide new roosting features for bats, if required.

Buildings B3 & B4

4.8. Buildings B3 & B4 have been assessed to offer **Low Suitability** for roosting bats. Therefore, in line with survey guidance published by the Bat Conservation Trust (2016) it is recommended that 1 number activity survey is undertaken between May and August.

4.9. If a bat roost is recorded, the results of the survey would inform a mitigation and compensation strategy that will guide the development and safeguard the conservation status of bats. There are opportunities within the new development to provide new roosting features for bats, if required.

Buildings B1 & B5

4.10. Due to the unsuitable nature of the buildings B1 & B5 to support bats and the lack of any bat related evidence both buildings have been assessed as providing negligible suitability for roosting bats, so it is not considered necessary or beneficial to undertake any further survey work.

4.11. Bats are transient in nature and can sometimes utilise buildings on an occasional or temporary basis. It is therefore recommended that works to the building is undertaken using a precautionary approach with all tiles and roof panels being removed cautiously by hand. In the unlikely event that a bat is found, works should stop immediately and further advice should be sought from Crossman Associates or Natural England (telephone number 0300 0603900).

Tree TR1

4.12. Tree TR1 is an overly mature short trunked crack willow. The tree is assessed to provide bats with Moderate Roosting Suitability. The tree's location within the north-west corner lends itself to retention and this is the recommended course of action. Bat roosting features are focussed on the lower bough unions, and it is suggested that the tree is subject to pollarding. This work will enable the Potential Roosting Features (PRF's) to be retained.

4.13. The work should be carried out by a suitably qualified tree surgeon and as an added precaution, it is recommended that this work is carried out under the supervision of a suitably qualified ecologist who will highlight the bat PRF's to the tree surgeons.

Lighting

4.14. Exterior lighting should consider the presence of bats and other nocturnal wildlife as the site is currently unlit. New exterior lighting should consist of a modern LED-type and should be directional and or cowled. Lighting should aim to avoid light spill along adjacent habitat features; particularly to the west, where farmland lays.

It is also recommended that exterior lighting plans should be implemented during the construction phase to avoid the possibility of new home-owners retro fitting less desirable lighting schemes.

4.15. The choice of lighting is important to minimising light spill and it is recommended that the following factors are considered to reduce the impact as much as possible;

- Narrow spectrum lights with no UV content
- Low pressure sodium and/or warm white LED
- Directional downlighting, illuminating downwards and below the horizontal plane to avoid light trespass.

4.16. A recommended exterior light unit is the Knightsbridge WALL 1LBK which is a wall mounted down lighter installed with a 3000K LED bulb which provides a beam angle of 50 degrees. Exterior lighting should be fitted with timers that prevent lights being on for more than 1 minute.

4.17. An information sheet on lighting can be found in Appendix III; information sheets.

<u>In-built bat roosting boxes</u>

4.18. It is recommended that 1 number Habibat bat box (type 001) is built into each new dwelling as it is constructed. This model is designed for a variety of bat species and has good thermal properties making it suitable as both a maternity roost and hibernation roost. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, making the box unobtrusive and aesthetically pleasing.

4.19. The bat box ideally should be placed beneath the eaves or on gable ends and away from windows and doors and ideally should be fitted in a location that gives bats immediate access to foraging habitat.

4.20. The final placement of the bat box will be discussed between the owner / planner / ecologist.

4.21. An information sheet detailing this type of bat roosting box can be found in Appendix III; information sheets.

4.22. Boxes are available from www.habibat.co.uk.

Birds

4.23. All species of birds are partially protected under the Wildlife and Countryside Act (1981) as Amended, which makes it an offence to damage or destroy a nest when being built or in use. This legislation has implications on the timing of vegetation removal works, which must take place outside the nesting bird season, which runs between March and September. If this timing is not possible then an ecological clerk of works or an ecologist must oversee clearance.

4.24. Should any active bird's nests be present, works should take reasonable precautions to avoid disturbing them until all birds have fully fledged.

4.25. The above advice also includes the removal of ivy present on aspects of buildings B1, B2 & B3.

Integrally fitted nest boxes

4.26. Artificial nesting boxes are recommended and can be inexpensively incorporated within the supporting walls of the existing buildings and the new properties; with a particular emphasis on house sparrows *Passer domesticus*. Sparrow nesting terraces should be used and each dwelling should be fitted with 1 number nestbox. Sparrow terraces are supplied by Habibat www.habibat.co.uk telephone: 01642 724 626), Wildlife Services www.wildlifeservices.co.uk telephone: 0333 900 0927.

4.27. A variety of models are available which are suitable for both integral and surface mounting.

4.28. The siting of bird boxes should be done in consultation with an ecologist.

4.29. Refer to information sheets under Appendix III.

Hedgehog

4.30. In the UK hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act (1981) as Amended which makes it illegal to kill or capture wild hedgehogs. Hedgehogs are also listed as a species of 'principal importance' under the Natural Environmental and Rural Communities Act 2006, which is meant to confer a 'duty of responsibility' to public bodies.

4.31. Excavated holes and trenches on building sites have the potential to trap wildlife including hedgehogs leading to the potential suffering and death of the animal (s) particularly if they become filled with water.

4.32. If during the development excavated holes / trenches are likely to be left open, then timber builders' planks should be fitted as ramps to enable any wildlife including hedgehogs a means of escape.

Vegetation removal

4.33. The following methodology is recommended to avoid the possibility of accidently killing or injuring hedgehogs should they be present on the site but is also equally applicable to other mammals and wildlife.

4.34. To reduce the likelihood of killing or injuring any hedgehogs that may be present during development, the following mitigation strategy should be followed. The strategy aims to encourage any hedgehogs away from the development area through a displacement method that relies on systematic habitat manipulation.

4.35. Prior to vegetation clearance, any piles of brash should be carefully dismantled and checked for the presence of hedgehogs and other species. Vegetation would then be systematically and slowly, removed in stages. Firstly, the vegetation would be carefully and slowly cut to a height of approximately 200 mm. The remaining vegetation would then be further reduced 24 hours later using a second more sensitive and slower method of cutting. This method will reduce the potential for any impacts to hedgehogs and other species and would render the habitat unsuitable.

4.36. All cut material should be removed by the end of each working day and must not be left store on site.

4.37. During all operations careful observation should be kept for hedgehogs and other species.

Great crested newt

4.38. In the UK, great crested newts (GCN) are fully protected under the Wildlife and Countryside Act as Amended and The Conservation of Habitats and Species Regulations. Under the Legislation, it is an office to injure or kill a GCN or to disturb, damage or destroy the habitat of GCN.

4.39. The Natural England Rapid Risk Assessment Tool has assessed that the proposals would be unlikely to lead to offence; however, eDNA analysis has confirmed that GCN are present in the area, so it is recommended that the site is registered under the District Level Licencing Scheme administered by Naturespace Partnership.

Reptiles

4.40. Reptiles are partially protected under the Wildlife and Countryside Act (1981) as Amended, which makes it an offence to intentionally or recklessly destroy or injure a reptile.

4.41. The current proposals will require the clearance of potential reptile habitat. It is therefore recommended that a reptile presence / absence survey is undertaken. The reptile survey will require the laying of reptile refugia, which are dark-coloured mats around the site and allowing them to establish for a minimum of seven days. The mats will then be checked on seven separate occasions, during suitable weather conditions, i.e. on dry, warm days with sunshine.

Landscape recommendations

4.42. It is recommended that ecological input is made into any future landscaping plan.

4.43. Any new landscape proposals should include new tree and shrub planting, including a range of native and non-native species. Where possible, plots and shared areas e.g. parking and bin areas, should be divided or screened using native hedgerows rather than close board fencing allowing the free passage of wildlife, particularly hedgehogs.

4.44. If a solid fence is necessary, then this should be combined with a hedgerow. In the case of solid fences small holes measuring approximately 150 mm x 150 mm should be created at the bases to allow the passage of wildlife, including hedgehogs, between plots.

4.45. An information sheet is included in Appendix III which includes a range of tree, shrub, and herb species that could be incorporated; these are recommended for encouraging bats but will also attract a wide range of other species.

4.46. Retained trees should receive adequate protection during the development to protect them from accidental damage during the construction phase. It is recommended that trees are protected according to current best practice standards (BS 5837:2012).

5. Limitations

5.1. This report records wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit.

5.2. This report represents a preliminary assessment only. Recommendations and conclusions are subject to change should further findings significantly differ from those collected from the survey efforts to date.

5.3. The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

6. References

Bat Conservation Trust (BCT) *Bats and Lighting in the UK* BCT

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Mitchell-Jones, A.J (2004) *Bat Mitigation Guidelines* English Nature

Mitchell-Jones, A.J, & McLeish A.P. (2012) *The Bat Worker's Manual* (4th Edition)

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TSO (2006) *Natural Environment and Rural Communities Act* TSO

Appendix I – Site Figures



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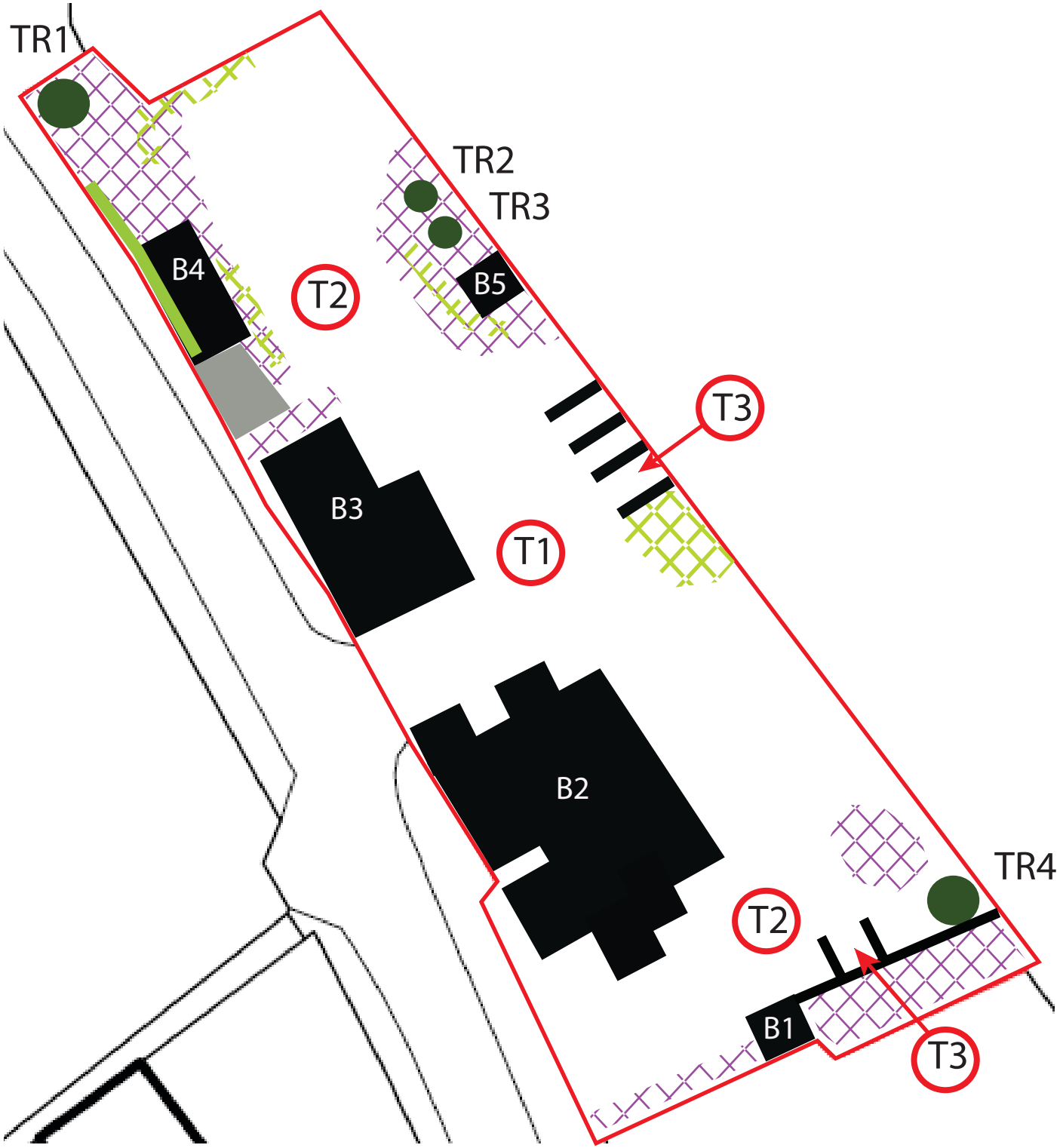
The site

Client	LPC
Title	Location plan
Site	The Old Builder's Yard
Figure	1
Date	06 June 2023
Scale	Not to scale



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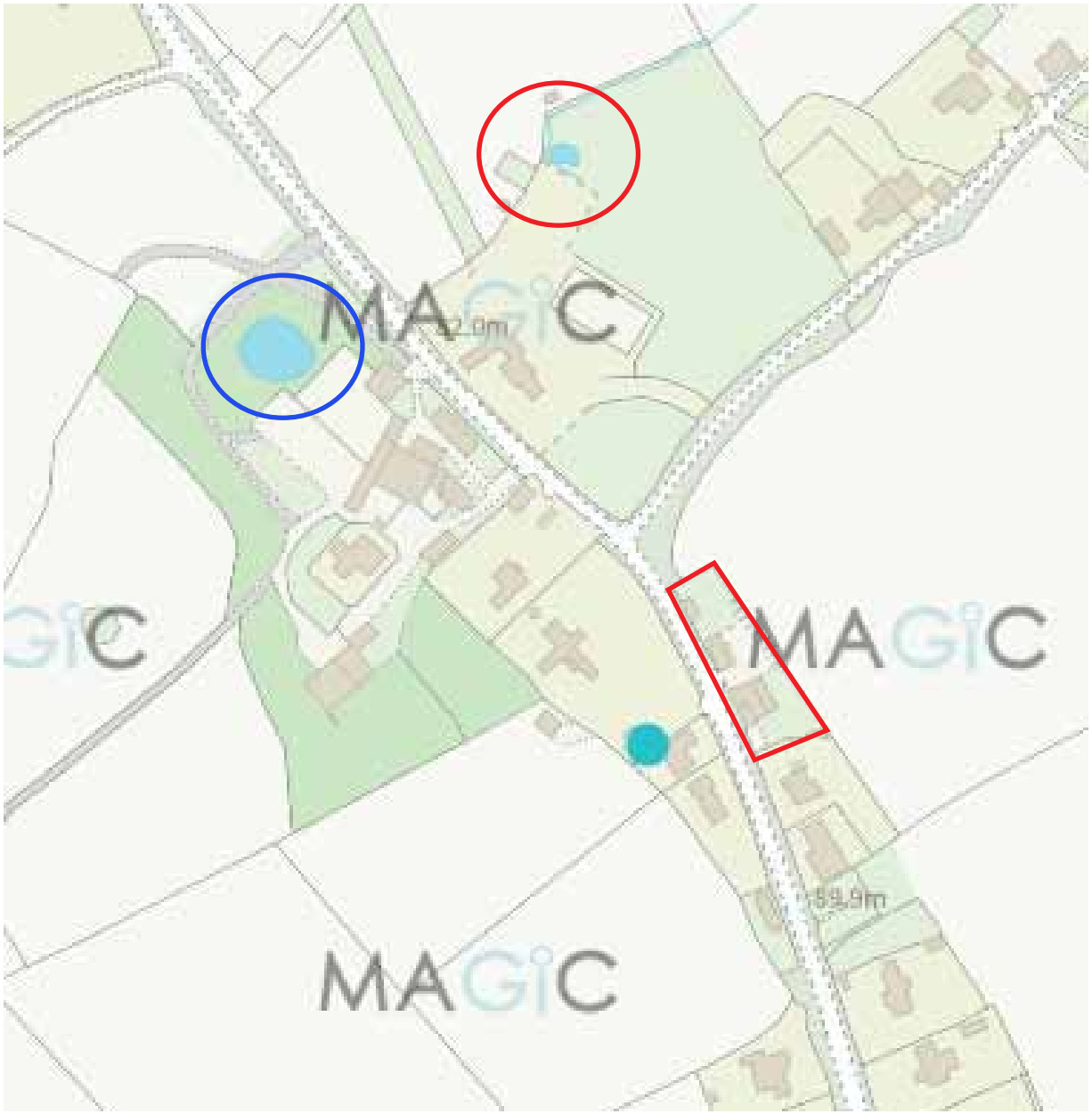
- Site boundary
- Tall herb and ruderal
- Scrub
- Un-managed grass
- Native hedgerow
- Internal walls
- Trees
- Buildings
- Target Note

Client	LPC
Title	Habitat Map
Site	Builders Yard
Figure	2
Date	12 June 2023
Scale	Indicative



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The site

Pond at Heath Farm which scored a positive result for great crested newt

Fishing pond not accessed

Client	LPC
Title	2 number ponds
Site	The Old Builder's Yard
Figure	3
Date	13 June 2023
Scale	Not to scale

Appendix II – Site Photographs

Photographs 1- 3



Photograph 1:

Building B1. Belived to be an old chicken shed



Photograph 2:

Building B2. Southern elevation and eastern elevation.



Photograph 3:

Detail; showing lifted feather edging

Photographs 4 - 6



Photograph 4:

Western side elevation.



Photograph 5:

Northern elevation



Photograph 6:

View looking southwards over the roof of the eastern side of the building showing the delapidated roof.

Photographs 7 - 9



Photograph 7:

The interior consists of series of rooms used as workshops and for storage.



Photograph 8:

Building B3. Northern and eastern elevation. A roof void exits in this section, refer to photogrph..



Photograph 9:

Eastern elevation and southern elevation

Photographs 10 - 12



Photograph 10:

Roof void



Photograph 11:

Building B4. Soutern gable and eastern elevation



Photograph 12:

Western elkevation

Photographs 13 - 15



Photograph 13:

Internal, provides a single bay.



Photograph 14:

Building B5.



Photograph 15:

The northern end provides an area of overgrown grass and tall ruderal / herb.

Also shown is:

- Tree TR1: An overly mature willow
- Tree TR2: A small alder buckthorn
- Tree TR3: A small apple tree

Photographs 16 - 18



Photograph 16:

Detail showing signiifcant cavities associated with Tree TR 1, the overly mature willow.



Photograph 17:

Tree TR4; a norway spruce



Photograph 18:

An area of former hard-standing that occupies the centre of the site, the area has become lifgtly vegetated. Shown as Target Note 1.

Photographs 19 - 21



Photograph 19:

Detail; showing the area of grass that occupies the central area of the site. The sward height tends to be shorter and less dense then the areas that occupy the north and south sides.



Photograph 20:

Detail; showing a dense thicket of bramble present midway along the eastern boundary.



Photograph 21:

Detail, showing a compost heap within a former blockwork aggregate store, a further compost heap is present along the southern end and also occupies a former block work aggregate store. Both compost heaps are highlighted as target Note T3 on figure 2; the habitat map.

Photographs 22 - 23



Photograph 22:

Detail; showing overgrown areas of grass and ruderal that occupy the northern 1/3 of the site.



Photograph 23:

Detail; showing the extreme north-eastern corner which is an old chicken run that has become densely overgrown with tall ruderal growth.

Photographs 22 - 23



Photograph 22:

Detail; showing overgrown areas of grass and ruderal that occupy the northern 1/3 of the site.



Photograph 23:

Detail; showing the extreme north-eastern corner which is an old chicken run that has become densely overgrown with tall ruderal growth.



Photograph 24:

Detail; showing the 24 m long managed native hedgerow that runs along the northern end of the western boundary.

Appendix III– Information Sheets

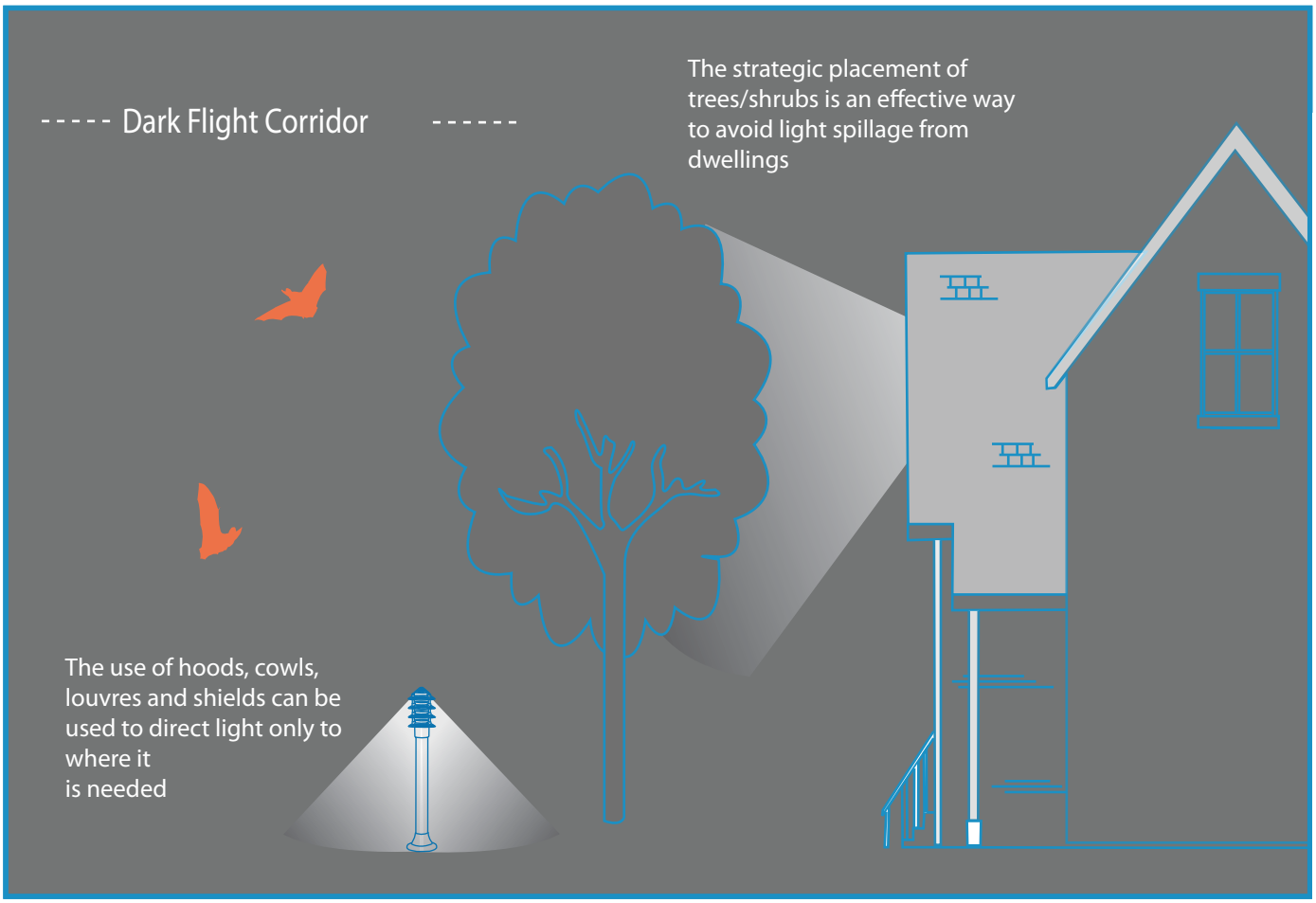
Bat Habitat Suitably Criteria

Bat Roosting Suitability	Criteria	Survey requirement to prove likely absence
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey work required
Low	A building, structure or tree with one or more potential roosting sites that could be used by individual bats opportunistically; however, these possible roost sites do not provide enough space, shelter, protection and/or suitable surrounding habitat to be used by large numbers of bats and are unlikely to be suitable for maternity or hibernation roosts.	One activity survey
Medium	A building, structure or tree with one or more potential roost sites that could be used by bats due to the size, shelter, protection, conditions and surrounding habit, but is unlikely to support a roost of high conservation status.	Two activity surveys
High	A building, structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Three activity surveys

Survey requirements are taken from Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016), which is the recognised industry standard guidance used by local planning authorities and other statutory consultees.

Sensitive Lighting for Bats

MITIGATION GUIDELINE Nº 001



Lamp Type

The impact of light on bats can be minimised by the use of low/high pressure sodium lamps.

Lighting Column

The height of lighting columns should be kept as low as possible to reduce the impact of light spill. For example, when designing lighting for pedestrian walkways, use short bollard lights that produce a low level light (as low as 3 lux) directed downwards.

Light Mapping

Mapping the light spill of a lighting scheme using computer software can prove essential in designing schemes that are fit for purpose, that minimise energy costs and create dark flight corridors and foraging areas for bats.

Light Levels

Proposed light levels within landscape plans should be as low as possible. If lighting is not needed, don't light.

Timing of Lighting

The times at when lighting is left on should be limited where possible. The use of movement sensors and timers for lights is useful for saving energy and reducing the amount of time a light is left on.

Impacts of Light on Bats

As nocturnal mammals, light causes disturbance to bats and many species will actively avoid lit areas. The illumination of bat roosts can delay bats emerging and thus shorten their foraging time and may eventually lead to bats abandoning their roost. The illumination of foraging or commuting areas may also lead to an increase in the rate of predation of bats by predators.

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Information sheet Artificial bird nesting boxes for Buildings: Swifts, house martins and house sparrows

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Habibat house sparrow nest box



Vivara woodstone sparrow nest box; suitable for both integral fitment or surface mounting

Ibstock Swift boxes are also suitable for house sparrows. Can be customised to suit any exterior finish.Site boxes under eaves, away from windows and direct sunlight.

Ibstock Box





Sparrow boxes should be grouped together and be at least 2 m of the ground. The boxes can be also be sited on gable walls. At least 3 per averaged size house.

Swifts boxes should be at least 5 m above the ground with an clear un-obstructed flight path.



Schwegler model 9b

Schwegler house martin box model 9 b double is a suitable box for house martins and can be used to encourage the uptakeof a building by this species. The boxes can be attached to the exterior walls in a sheltered position; ideally beneath the eaves. At least two sets should be placed on an averaged size house.