

5 Stoneham Close, Reading

Preliminary Ecological Appraisal

Prepared on behalf of Sarwar Developments

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5 Stoneham Close, Reading, RG30 4HB

Ecology 8132

Version 01

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1.0 Executive Summary

- 1.1 The Client is proposing to develop the site at 5 Stoneham Close, Reading. Proposals include demolition of the existing garage and construction of a residential dwelling in its place. Pro Vision were commissioned in December 2022 to conduct a Preliminary Ecological Appraisal of the site.
- 1.2 The ecological appraisal comprised a desk study of existing ecological data in relation to the site, and an assessment of sites habitats and suitability to support protected species within the application site.
- 1.3 The site comprises a garage, greenhouse and a private garden.
- 1.4 The garage and greenhouse due to be demolished were assessed as having negligible potential for roosting bats, no further action is required.
- 1.5 The hedgerow boundaries provide very limited potential foraging and commuting habitat and are close to the nearby woodland. A sensitive lighting scheme will be required and is detailed in **Section 5.0**.
- 1.6 The hedgerow boundaries provide limited foraging and nesting opportunities for common bird species. It is recommended that any vegetation clearance or building demolition should avoid the bird nesting season (1st March – 31st August) unless an inspection by an ecologist concludes that there are no nesting birds present immediately prior to the commencement of works. If the presence of nesting birds is confirmed, any works which may disturb them will be delayed until the young birds have fledged the nest of their own accord. Details regarding mitigation are provided in **Section 5.0**.
- 1.7 The site presents an opportunity to enhance biodiversity at the site level, in compliance with national and local planning policy. The current development design will result in a net gain of 192% in habitat units and a 235% net gain in hedgerow units. This includes the creation of 0.006 hectares of vegetated gardens, the planting of four small native trees and 0.023 kilometres of native hedgerow to replace the current non-native hedgerows.
- 1.8 The development can provide additional ecological enhancements including bat and bird boxes. Details regarding these are provided in **Section 5.0**.

2.0 Introduction

Project Background

- 2.1 Pro Vision Ecology were commissioned in December 2022 to undertake a Preliminary Ecological Appraisal (PEA) at 5 Stoneham Close, Reading. For the site location refer to **Appendix A**.
- 2.2 This report describes the current ecological baseline of the site based on the findings of the ecological assessment and provides information for further survey requirements and potential mitigation on the site.

Brief

- 2.3 To carry out a PEA of the land within the site boundaries, to inform the Client of any further survey work required and of the ecological implications of their proposals.

Relevant Legislation and Planning Policy

- 2.4 The key legislative provisions of relevance to this report with respect to the development proposals and their potential effects on ecological features are listed below:
 - The Conservation of Habitats and Species Regulations 2017
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
 - The Protection of Badgers Act (1992)
- 2.5 The UK Biodiversity Action Plan (BAP) was the Governments response to the 1992 Convention on Biodiversity (The Rio Convention), with the aim of halting the loss of biodiversity in the UK. The new UK post-2010 Biodiversity Framework replaced the previous BAP and is the government's response to the new strategic plan on the United Nations Convention on Biological Diversity (CBD). Although the UK post-2010 Biodiversity Framework supersedes the UK BAP, the UK BAP lists of priority species and habitats still remain an important reference source for identifying habitats and species of principal importance within the UK. Within England, Section 41 of the NERC Act (2006) lists species and habitats of principal importance for the conservation of biodiversity.
- 2.6 The Government has set out its policies for the protection and enhancement of biodiversity through the planning system in the National Planning Policy Framework Section 15 (NPPF, 2021).
- 2.7 The site at 5 Stoneham Close is located within Reading Borough Council. The Reading Borough Local Plan, adopted 2019, includes core policy EN12 related to Biodiversity which states:

EN12: BIODIVERSITY AND THE GREEN NETWORK

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

- *Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and*
- *Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

- b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:*
- *Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and*
 - *Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.*

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

H11: DEVELOPMENT OF PRIVATE RESIDENTIAL GARDENS Proposals for new residential development that includes land within the curtilage or the former curtilage of private residential gardens will be acceptable where:

- 1) The proposal makes a positive contribution to the character of the area in terms of:*
- *The relationship of the existing built form and spaces around buildings within the surrounding area;*
 - *A layout which integrates with the surrounding area with regard to the built up coverage of each plot, building line(s), rhythm of plot frontages, parking areas, and existing pattern of openings and boundary treatments on the site frontage;*
 - *Providing appropriate hard and soft landscaping, particularly at site boundaries. This includes features such as the variety of trees, hardstanding/lawns and hedges, etc;*
 - *Compatibility with the general building height within the surrounding area;*

- *The materials and elevational detail. These should be high quality, and where appropriate distinctive and/or complementary;*
 - *The arrangement of doors, windows and other principal architectural features and their rhythm between buildings.*
- 2) *The application site provides a site of adequate size and dimensions to accommodate the development proposed in terms of the setting and spacing around buildings, amenity space, landscaping and space for access roads and parking;*
 - 3) *The proposal includes access, which meets appropriate highway standards;*
 - 4) *The proposal does not lead to tandem development;*
 - 5) *The design and layout minimises exposure of existing private boundaries to public areas, and avoids the need for additional physical security measures;*
 - 6) *The proposal does not cause a significant detrimental impact to the amenity of adjacent and nearby occupants;*
 - 7) *The emphasis is on the provision of family-sized housing;*
 - 8) *The development provides biodiversity net gain wherever possible, and would not have an adverse impact on biodiversity in terms of the fragmentation of blocks of gardens, which as a unit or in association with adjacent green space are deemed to make an important contribution to biodiversity and contribute to the green network; and*
 - 9) *The proposal does not prejudice the satisfactory development of a wider area.*

3.0 Methodologies

Desk Study

- 3.1 The desk study methodology is based upon guidelines set out by the Chartered Institute of Environmental and Ecological Management (CIEEM, 2017). A data-gathering exercise was undertaken to obtain any available information relating to statutory and non-statutory nature conservation sites and protected species (**Table 1**).

Table 1: Summary of information sources used for the Desk Study.

Organisation / Source	Information Sought
Thames Valley Environmental Records Centre (HBIC)	Records of the presence of key protected and notable species and non-statutory wildlife sites within one kilometre of the site.
MAGIC	Locations of and citations for all national statutory wildlife sites, including SSSI, within two kilometres and all international sites including SAC, SPA or Ramsar sites within five kilometres of the site. Records of EPSM licences and class licence returns within two kilometres.
Ordnance Survey Maps	Large scale habitat information and identification of off-site habitats which may require consideration (such as ponds) within 500m.

Ecological Assessment

Habitats

- 3.2 A site visit was undertaken on 21st December 2022 by ecologist David Casson in cloudy weather conditions, still and damp with an ambient temperature of 8°C. The survey employed techniques based on the UK Habitat Classification System.
- 3.3 The collection of botanical information focused on the dominant and/or key indicator species for each habitat, to allow allocation of habitats to hierarchy levels 3 and/or 4 and where relevant to identify any priority habitats which are present on site.
- 3.4 The conditions of the habitats on the site were assessed in line with the condition sheets supplied alongside DEFRA Metric 3.1.

Constraints

- 3.5 The survey was undertaken in December and outside the optimum time to conduct botanical work. Therefore, some species may have been missed but a suitable assessment of the habitats has been possible for the purposes of this application.

Protected species

- 3.6 The PEA included an assessment of the potential for habitats on or immediately adjacent to the site to support legally protected or conservation-notable species. The location and nature of any signs of the presence of protected species (such as droppings, footprints, burrows, etc.) were documented and mapped accordingly. Indicative survey methods for protected species are outlined below.

Badgers (Meles meles)

- 3.7 The site and where possible 30 metres outside the site boundary was assessed for its suitability to support badgers. A direct search was undertaken for evidence of badgers. Evidence includes
- Active or disused setts;
 - Diggings;
 - Latrines / dung pits;
 - Foraging ('snuffle holes');
 - Footprints; and
 - Badger hairs.

Bats

- 3.8 Bats use features within buildings such as stone crevices or cracks in brickwork, ridge beams, gaps between roofing materials and the main building structure, and any potential access points. Internal (where possible) and external inspections of the buildings were conducted by David Casson during the PEA. During the survey any evidence of bats such as droppings, urine staining, claw marks, feeding remains or bats themselves were recorded. An assessment of the potential of the building to support roosts was then made in line with Bat Conservation Trust (BCT) guidelines (2016) shown in **Table 2** below.

Table 2: Assessment of buildings to support roosting bats.

Potential	Criteria
Negligible	Negligible features on site likely to be used by bats
Low	Potential features present which may support low numbers of bats irregularly but no suitable features for regular use by large numbers of bats.
Medium	A building with one or more potential roost features that may be used by bats due to their size, shelter, protection, condition and habitats present. Unlikely to support a roost of high conservation value.
High	A building with one or more potential roost sites that are suitable for use by a large number of bats on a regular basis.

- 3.9 Bats use features in the landscape to navigate and also habitats may provide key foraging areas. Foraging and commuting habitat was assessed based on based on BCT guidelines (Collins, 2016) shown in **Table 4** below.

Table 4: Assessment of foraging/commuting habitat.

Suitability	Criteria
Negligible	Negligible features on site likely to be used by bats
Low	Suitable but isolated habitat that could be used by small numbers of bats.
Medium	Habitat that is well connected to the wider landscape and could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape and may be used by significant numbers of bats including annex II species.

Survey Limitations

- 3.10 Bats will often roost in places that are inaccessible to the surveyor, such as crevices within structures. During the inspection of the buildings on site for bats, features that have the potential to support crevice dwelling species were also noted as it is not possible to definitively conclude that bats are absent from these areas.

Birds

- 3.11 Any habitat features, for example, scrub and trees, which could potentially be used by nesting birds, were surveyed and any nesting activity was noted. The habitat was also assessed regarding its potential for bird activity.

Great Crested Newts (Triturus cristatus)

- 3.12 Ponds within the vicinity of the site were noted and the potential of the land to act as a commuting route, shelter or foraging resource for great crested newts was assessed.

Hazel dormouse (Muscardinus avellanarius)

- 3.13 An assessment of the suitability of the habitat to support hazel dormouse was undertaken in accordance with The Dormouse Conservation Handbook (Bright *et al.*, 2006). Any small mammal feeding signs were checked and assessed, including:
- Examination of hazel nuts; and
 - Evidence of nest building.

Invasive species

- 3.14 During the survey any invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were noted.

Invertebrates

- 3.15 An assessment was undertaken to assess the potential of the habitats recorded on site to support diverse communities of invertebrates, or any Biodiversity Action Plan (BAP) species. The assessment was based on the presence of a number of habitat features which may support important invertebrate communities such as:

- An abundance of deadwood;
- Presence of diverse plant communities;
- Presence of varied woodland structure and sunny woodland edge;
- Presence of ponds or watercourses; and
- Presence of free draining soil exposures.

Reptiles

- 3.16 Habitat features that could be suitable as hibernacula, foraging or basking areas were noted. Extant refugia were lifted and examined for evidence of reptiles, including sloughs (shed skins).

4.0 Results and Analysis

Designated sites

Statutory Designated Sites

- 4.1 The data search returned no records of international statutory designated sites within five kilometres of the site and four records of national statutory designated sites within two kilometres, these are designated as Local Nature Reserves (LNRs).
- **Lousehill Copse LNR:** A semi-ancient woodland surrounded by housing. Mature oak (*Quercus* spp.) and hazel (*Corylus avellana*) woodland with some coppice. There are many bluebells (*Hyacinthoides non-scripta*) and other spring flowers, streams, relics of old ponds and boggy areas. The site is on sand and gravel. There is an open meadow with gorse (*Ulex* sp.) and broom (*Cytisus scoparius*) in the northern section with sandy soil which children use as a digging area. The site is approximately 13.03 hectares in area and is located 0.4 kilometres northeast of the development site.
 - **Blundells Copse LNR:** Ancient woodland with a stream approximately 5.55 hectares in area. There are large alder (*Aldus glutinosa*) trees, cherry (*Prunus avium*), willow (*Salix* spp.) and coppiced willow, alder and hazel with oak and ash (*Fraxinus excelsior*) standards. There is opposite leaved golden saxifrage (*Chrysosplenium oppositifolium*), marsh marigold (*Caltha palustris*), yellow archangel (*Lamium galeobdolon*), and fools water cress (*Apium nodiflorum*) along the stream. The LNR is located one kilometre northwest of the development site.
 - **Round Copse LNR:** Adjacent to and joining Mcilroy Park, Round Copse is a dense woodland with a variety of birdlife, with woodpecker species present, as well as nuthatch (*Sitta europaea*), treecreeper (*Certhia familiaris*) and thrushes and blackbirds (*Turdus* spp.). This LNR is approximately 1.66 hectares in area and is located 1.2 kilometres north of the development site.
 - **Mcilroy Park LNR:** An extensive natural park with view of the River Thames. Mostly comprises grassland with heather (*Calluna vulgaris*) and brome (*Bromus* spp.). The semi-ancient woodland around the edges of the site has bluebells, wood anemones (*Anemone nemorosa*) and butchers' broom (*Ruscus aculeatus*). The site has a sunken track lined with beech (*Fagus sylvatica*). There are old chalk pits in the west woodland area from the old clay extraction industry, a possible Saxon mound is at the entrance from Weald Way. This LNR is approximately 11.98 hectares in area and is located 1.4 kilometres north of the development site.
- 4.2 Due to the extent of the proposed works, intervening distance and habitats it is considered the proposed development will not result in any impacts to statutory designated sites.

Non-Statutory Designated Sites

- 4.3 The data search returned records of three non-statutory designated sites within one kilometre of the development site. These are Local Wildlife Sites (LWSs).
- **Meadway Fringe LWS:** This site includes a strip of broadleaved woodland with Scot's pine (*Pinus sylvestris*) and larch (*Larix decidua*) with ancient woodland indicators present. In addition to this a section of unimproved species rich neutral grassland is present. The site is approximately 2.13 hectares in area and is located 90 metres northeast of the site.
 - **Prospect Park (includes The Rookery) LWS:** This site consists of Prospect Park and The Rookery. The Rookery is a small area of lowland mixed deciduous woodland. The canopy is oak dominated and the ground flora comprises 14 ancient woodland indicators. Prospect Park is a historic parkland site in the heart of Reading mainly consisting of closely mown amenity grassland and associated public amenities. Mature and veteran trees are present throughout the grassland with a number of deadwood habitat types present. The site is bounded to the south by hedgerows and areas of scrub and scrub woodland. The site contains a species poor shaded pond. This LWS is approximately 24.1 hectares in area and is located 0.3 kilometres east of the development site.
 - **Lousehill Copse LWS:** This site comprises three parcels of lowland mixed deciduous woodland. The three areas are designated as Local Nature Reserves (discussed above) and are managed by volunteers. An area of grassland and scattered scrub to the west of the woodland was added as an extension to the site in 2022 and supports semi-improved neutral grassland. The site is approximately 14.91 hectares in area and is located 0.4 kilometres northeast of the development site.
- 4.4 Although Meadway Fringe LWS lies 90 metres northeast of the site the non-statutory sites are considered to lie outside the zone of influence of the development due to the extent of the proposed works, intervening distance, and habitats it is considered the proposed development. Therefore, it is anticipated the proposed development will not result in any impacts to non-statutory designated sites. No further action is required.

Ecological Assessment

Introduction

- 4.5 The results of the PEA are presented below. A habitat survey map is provided in **Appendix C**. The map illustrates the location and extent of the sites surveyed, along with additional notable features.

Habitats

Surrounding habitat

- 4.6 The site at 5 Stoneham Close is located within Reading in a dense suburban area. The River Kennet is located 1.7 kilometres south of the site. The development site is adjacent to 5 Stoneham Close, within the garden of the existing property. A small electrical substation is located adjacent to the south of the site. The site is surrounded by fencing with newly constructed fencing on the north and northeast boundary.

Developed Land; Sealed Surface

- 4.7 The site has areas of developed land comprising a patio area and footpath, these areas are used mainly for storage of materials and debris (**Figures 1 and 2**). The driveway on the east of the site comprises hardstanding with no vegetation present apart from two ash (*Fraxinus excelsior*) saplings on the southern boundary.



Figures 1 and 2: Patio area covered by debris and patio to the right of greenhouse, respectively.

Ephemeral Vegetation

- 4.8 A portion of the site comprises ephemeral vegetation with indications of previously present amenity grassland. This area is mostly bare ground with ivy encroaching and small patches of perennial rye-grass (*Lolium perenne*) (**Figures 3 and 4**). This area is covered by old building materials and debris.

Scrub and Ornamental Planting

- 4.9 The northwest area of the garden has a raised section above the ephemeral vegetation and comprises recently cleared ornamental planting with stumps of hazel (*Corylus avellana*) present. Other species include ivy (*Hedera helix*) and the Schedule 9 invasive species montbretia (*Crocsmia x crocosmiiflora*). Further details regarding invasive species are detailed in the relevant section of this report.



Figures 3 and 4: Area of ephemeral vegetation with raised area of cleared scrub and ornamental planting.

Hedgerows

- 4.10 Hedgerows are present along the western and southern boundaries (**Figures 5 and 6**). The western hedgerow comprises dominant Leyland cypress (*Cupresses x leylandii*) with abundant cherry laurel (*Prunus laurocerasus*), ivy and a small section of hazel and young ash present. The southern hedgerow comprises abundant cherry laurel in the western section and dominant leylandii in the eastern section, the Schedule 9 invasive species cotoneaster (*Cotoneaster* sp.) is present in the centre of the hedgerow.



Figures 5 and 6: Western hedgerow and southern hedgerow respectively.

Other features

- 4.11 The majority of the site is used for storage (**Figure 7 and 8**) with only a small area of ephemeral vegetation and ornamental planting present clear of debris.



Figures 7 and 8: Debris in northern section next to vegetated areas and greenhouse with surrounding debris, respectively.

Buildings

- 4.12 The buildings on site comprise a garage and a greenhouse which are currently used for storage. These buildings are described further in the bat section of the report.

Protected and/or notable species

Badgers

- 4.13 The TVERC data search returned 34 records for badger within one kilometre of the site between 2005 and 2020. The majority of these records related to setts.
- 4.14 The habitats on site do not provide suitable habitat for badgers. The boundaries are all sealed off by fencing with no access into the site. Whilst there are multiple badger records in the surrounding area, the habitat lacks any suitable badger habitat and it is considered badgers do not use the site and are therefore absent, no further action is required.

Bats

- 4.15 The TVERC data search returned 72 records within one kilometre of the site for the following bat species between 2000 and 2020:
- Serotine (*Eptesicus serotinus*)
 - Myotis bat (*Myotis* spp.)
 - Daubenton's (*Myotis daubentonii*)
 - Noctule (*Nyctalus noctula*)
 - Pipistrelle bat (*Pipistrellus* spp.)
 - Common pipistrelle (*Pipistrellus pipistrellus*)
 - Soprano pipistrelle (*Pipistrellus pygmaeus*)
 - Brown long-eared (*Plecotus auritus*)
- 4.16 The DEFRA run website, MAGIC, was consulted for a list of granted European Protected Species Licences (EPSL's). Four granted EPSL's in respect of bats were recorded within two kilometres of the site for common and soprano pipistrelle, and brown long-eared bats. Three of these included destruction of day roosts and one included destruction of a maternity roosts for soprano pipistrelles, this is located 1.6 kilometres east of the site.

Buildings

- 4.17 The garage on site is single storey with brick elevations and a flat bitumen felt roof (**Figures 9 and 10**). The windows are timber framed and the soffit box also comprises timber. uPVC guttering is also present. The main garage door comprises timber, a narrow access/egress point is present along the top of the garage door and leads into the garage.
- 4.18 The interior is used for storage and well-lit due to the windows on the west elevation. The ceiling is lined with panelling and is well sealed. Timber frames run along the ceiling but have no potential roosting features present.



Figures 9 and 10: Building descriptions.

- 4.19 The garage is well sealed with no potential access/egress points except for a small gap above the main garage door which leads into the garage (**Figure 11**). However, the interior has no potential roost features present. Due to the lack of suitable roost features the building is considered to have negligible potential and no further action is required.
- 4.20 The greenhouse has glass elevations and a pitched glass roof, panels are missing however there are no potential roost features present, therefore it is considered to have negligible potential for roosting bats, no further action is required.
- 4.21 The boundary hedgerows provide some limited suitable habitat for foraging and commuting bats. The development will result in increased lighting, a lighting scheme will need to be implemented and is detailed further in **Section 5.0**

Birds

- 4.22 TVERC provided records for the following bird species of conservation concern that may be present on the site: green finch (*Chloris chloris*), house martin (*Delichon urbicum*), house sparrow (*Passer domesticus*), lesser spotted woodpecker (*Dryobates minor*), mistle thrush (*Turdus viscivorus*), redwing (*Turdus iliacus*), spotted flycatcher (*Muscicapa striata*), starling (*Sturnus vulgaris*) and swift (*Apus apus*). Records of the following Schedule 1 and/or Annex I species were returned: Cetti's warbler (*Cettia cetti*), firecrest (*Regulus ignicapilla*), peregrine (*Falco peregrinus*), red kite (*Milvus milvus*). However, the habitat recorded on site is considered unsuitable for these species.
- 4.23 The hedgerows provide limited suitable habitat for nesting birds. Mitigation measures are required and are detailed in **Section 5.0**.

Great crested newts

- 4.24 The TVERC data search returned no records of great crested newt presence within one kilometre of the site. The DEFRA run website, MAGIC, was consulted for a list of granted EPSL's and GCN class licence returns. There were no records of granted EPSL's and no class licences returns for great crested newts within two kilometres of the site.

- 4.25 No evidence of amphibian presence was recorded during the survey. The habitats on site are considered unsuitable for great crested newts. There are no water bodies within 500 metres of the site.
- 4.26 Due to the lack of suitable breeding ponds and terrestrial habitat on site, and no further suitable habitats off site, great crested newts are considered absent from the site and no further action is required.

Hazel dormouse

- 4.27 The TVERC data search returned no records for hazel dormouse within one kilometre of the site and the DEFRA run website, MAGIC, also returned no records of granted EPSL's for this species.
- 4.28 The hedgerows recorded on site are considered unsuitable habitat for hazel dormouse due to a lack of suitable foodplants. There is limited connectivity to further suitable habitat off-site as the surrounding hedgerows comprise ornamental species which lack the structure and diversity in species suitable to support dormice.
- 4.29 Due to the lack of records and suitable habitat on site, it is considered hazel dormouse are absent from the site and no further action is required.

Invasive species

- 4.30 The Schedule 9 invasive species, montbretia is present onsite within the area of cleared scrub/ ornamental planting and cotoneaster is present in the southern hedgerow. Further details regarding the removal and management of these species are provided in **Section 5.0**.

Invertebrates

- 4.31 The TVERC data search provided 71 records of stag beetle (*Lucanus cervus*) within one kilometre of the site.
- 4.32 The habitats on site are unlikely to support populations of stag beetle due to the lack of deadwood and suitable woodland habitat surrounding the site. It is therefore considered stag beetles are absent from the site, no further action is required however opportunities for enhancements are provided in **Section 5.0**.

Reptiles

- 4.33 The TVERC data search returned five records for slow-worm (*Anguis fragilis*) within one kilometre of the site. These were all located in Lousehill Copse, 0.4 kilometres northeast of the site.
- 4.34 The habitats on site are considered unsuitable for reptiles as the majority of the site comprised bare ground and hardstanding. Suitable habitat in the area is limited to short sward amenity grassland associated with the surrounding residential properties. The piles of debris on site (**Target notes 1 and 2**) provide some suitable shelter habitat for reptiles and should be removed to prevent possible colonisation by reptiles. No further action is required.

5.0 Impacts and Mitigation

Impacts and Required Mitigation for the Proposed Development

Bats – lighting

- 5.1 The site is situated within a residential area therefore the existing lighting levels is anticipated to be relatively high, therefore the use of the site by bats is considered likely to be by light tolerant species. However, as a measure of best practice any necessary external lighting within the development will utilise security timers where possible and be LED lighting of a warm white spectrum (<2700 Kelvin) which will feature peak wavelengths higher than 550 nm. In addition to this only lighting with an upward light ratio of 0% will be used (ILP, 2018).
- 5.2 The site can provide additional enhancement measures though the management and provision of native hedgerows. These measures are discussed further in relation to enhancements on the site.

Nesting birds

- 5.3 The boundary hedgerows within the site provide limited habitat for nesting birds. It is an offence under the Wildlife and Countryside Act 1981 (as amended) to take, damage or destroy the nest of any wild bird while that nest is in use. Any vegetation clearance or building demolition required must be scheduled to avoid peak bird nesting season (1st March to 31st August, although this will vary between species and local conditions) to avoid contravention of protected species legislation; unless inspection by an ecologist concludes that there are no nesting birds present immediately prior to the commencement of works.
- 5.4 If the presence of nesting birds is confirmed within vegetation, a 5-metre buffer will be implemented, and no works will be permitted within this buffer. Works will be able to proceed once the young birds have fledged the nest of their own accord.

Invasive species

- 5.5 Montbretia and cotoneaster is present on site in the cleared scrub/ornamental planting. These species are listed on Schedule 9 of the Wildlife and Countryside Act 1981. It is therefore an offence to allow these species to spread outside of ownership boundary. It is recommended these are removed from the site as part of the works and no further planting to be carried out within the proposed development.
- 5.6 If retained within the garden, the species will require monitoring to ensure they are not spreading outside the boundary of the site.

Enhancement Measures for the Proposed Development

- 5.7 In accordance with the Natural Planning Policy Framework (NPPF, 2021) whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.
- 5.8 In addition to this in accordance with policy H11 and EN12 the development must provide biodiversity net gain wherever possible. Therefore, a biodiversity net gain assessment has been completed using the DEFRA 3.1 metric based on the following inclusions with the development plans. The biodiversity metric is available alongside this report.
- The creation of 0.006 hectares of vegetated private gardens.
 - The planting for four small native trees in the southern garden near the southern boundary.
 - The planting of 0.023 kilometres of native hedgerow to replace the non-native hedgerows currently present.
- 5.9 The current development design will result in a net gain of 192% in habitat units and a 235% net gain in hedgerow units (**Table 5**). Without the planting of the four native trees, there would be a net loss in biodiversity.

Table 5: DEFRA Metric 3.1 results.

On-site baseline	Habitat units	0.02
	Hedgerow units	0.02
On-site post intervention	Habitat units	0.06
	Hedgerow units	0.08
Total net change	Habitat units	0.04
	Hedgerow units	0.05
On-site net % change	Habitat units	191.77%
	Hedgerow units	234.73%
Trading rules satisfied		Yes

Biodiversity Enhancements

5.10 The biodiversity metric only takes into account the provision of habitats. To provide additional biodiversity enhancements and secure net gains the following measures will be included within the final development design:

- Planting of trees and shrubs for any supplementary planting scheme should incorporate native species which benefit a range of wildlife.
- Bat and bird boxes should be included within the development, with integral boxes preferred. These should target species such as house sparrow (*Passer domesticus*) and swift.

6.0 References and Bibliography

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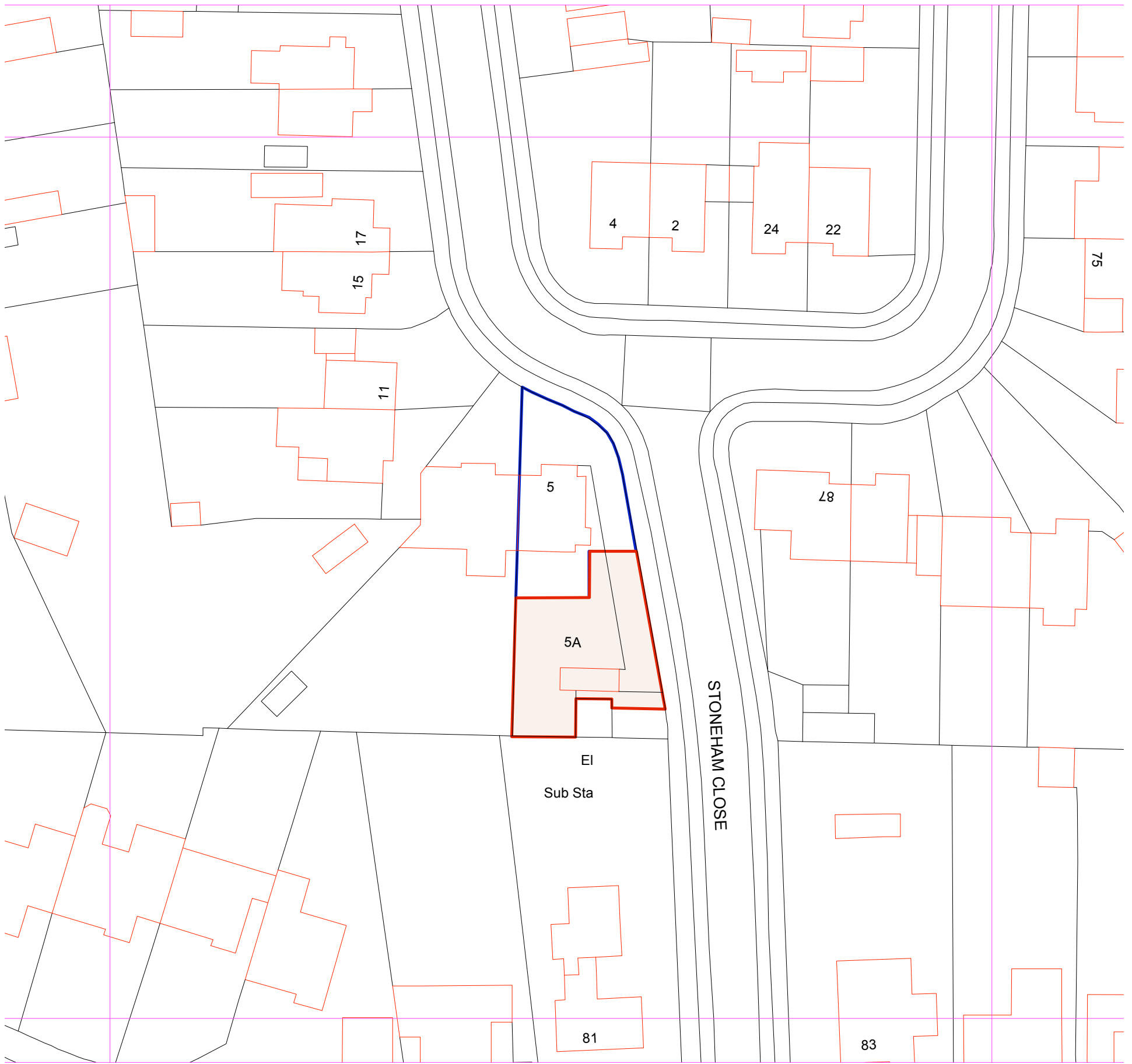
Appendices

Appendix A: Site Location

®

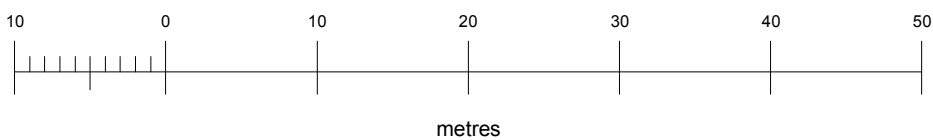
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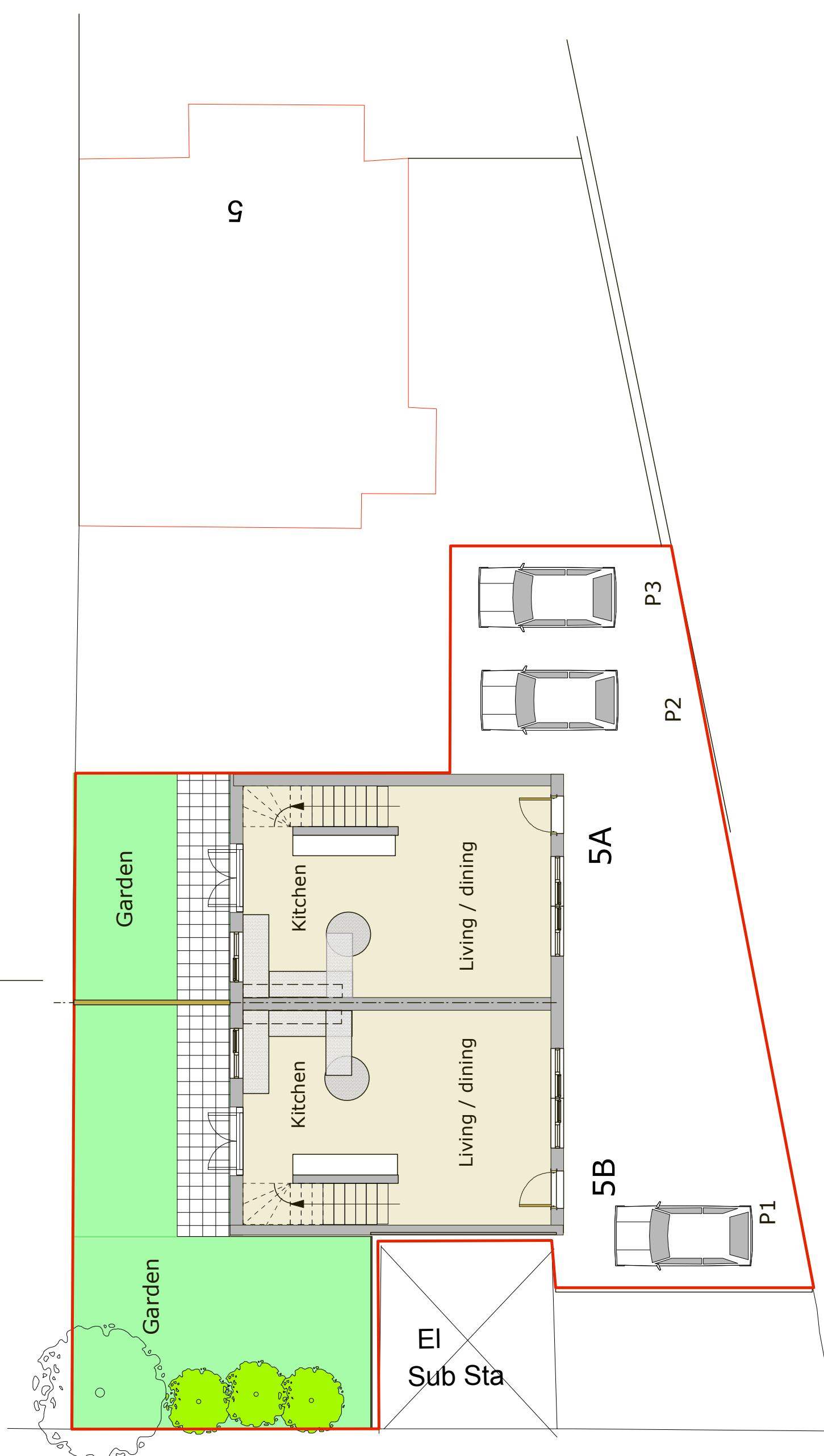
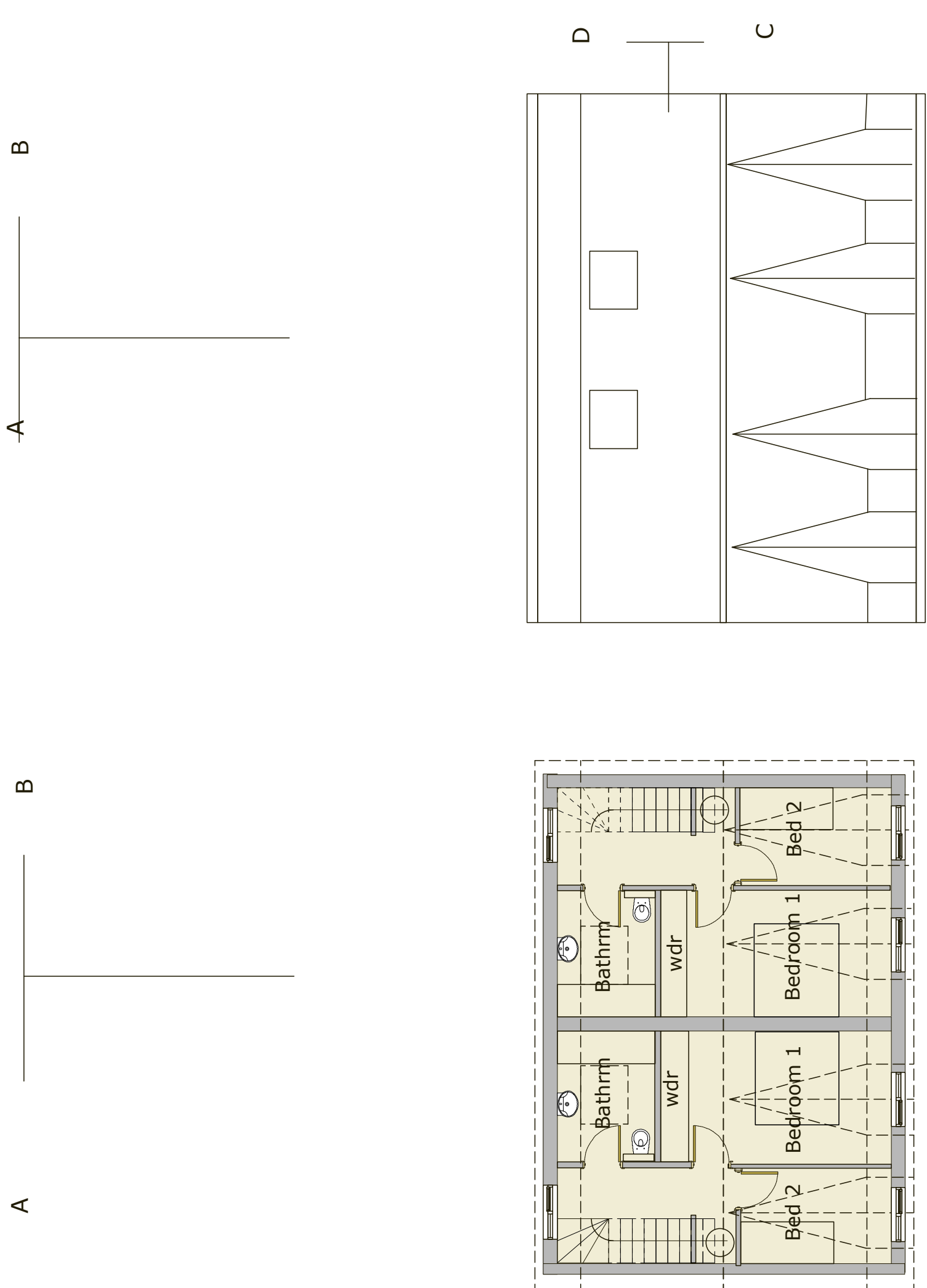
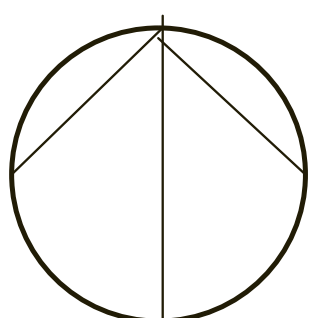
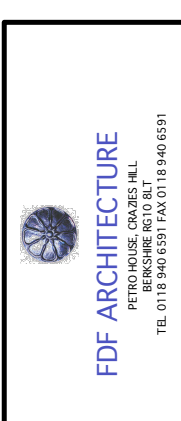


5A STONEHAM CLOSE READING RG30 4HB

SITE LOCATION 1:1250 @ A3

FDF ARCHITECTURE LLP JUNE 2021

Appendix B: Proposed Plans

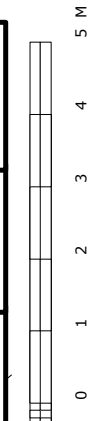
REVISIONS

5A STONEHAM CLOSE
READING BERKSHIRE

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FLOOR PLANS
PROPOSED NEW FLATS
1 X 2 BED, 1 X 1 BED,

SCALE	1:100 @A1	DATE	JUN 21	DRAWN
Project No	3336	Dwg. No.	3336.100.P.01	Rev. C

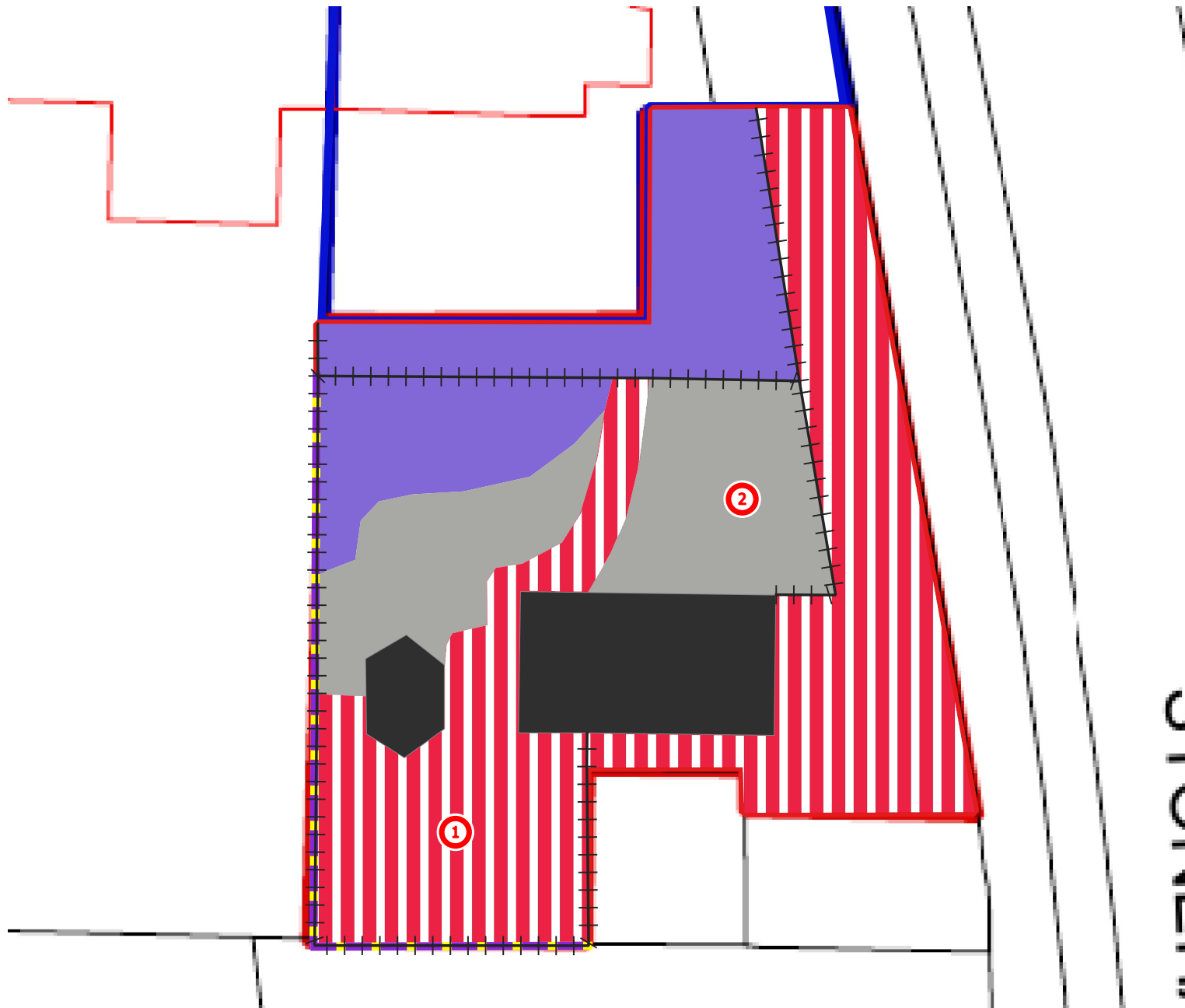


C: Scheme amended to 2x
2 bed terrace houses 10.10.22

B: Room dims added and note
to flat 2 updated. 4.6.22

A: Reduced to two storey 1/3/22

Appendix C: Habitat Survey Map



Legend

-  Red Line Boundary
-  Land in Client Ownership
-  Artificial Hard Structures
-  Developed Land; Sealed Surface
-  Introduced Shrub
-  Ruderal/Ephemeral
-  Non-native Ornamental Hedge
-  Fence
-  ① Rubble Pile
-  ② Timber and Roofing Felt Debris



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CLIENT:
Sarwar Developments

PROJECT:
5 Stoneham Close

DRAWING:
Habitat Survey Map

DATE:
11/01/23

SCALE: 1:150
SIZE: A4
JOB NO: 8132
DWG NO: V1
REV:

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Appendix D: Ecological Enhancements

Appendix E: Relevant Legislation

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) transpose Habitats Directive into UK legislation. The Habitats Regulations provide for the designation and protection of European Sites and European Protected Species. European Sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which form part of the Natura 2000 network of protected areas across Europe.

European Protected Species (EPS) are those listed under Schedule 2 of the Habitats Regulations and include dormouse, great crested newt, otter and all species of bat. The regulations prohibit the deliberate capture, killing or disturbance of any EPS; it is also an offence to damage or destroy a breeding site or resting place of any of these species. In order to carry out a lawful operation (e.g. development work which has full planning permission) that may result in an offence under the Habitats Regulations, it is necessary to obtain a licence from Natural England. EPS Licences will only be granted after Natural England has been satisfied that there are no satisfactory alternative and that there will not be any adverse impacts on the favourable conservation status of the species.

Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 is the principle piece of legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. The Wildlife and Countryside Act contains both habitat and species protection. Certain bird, animal and plant species are afforded protection under Schedules 1, 5 and 8 of the Act. Measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) are also included within the Act.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act 2006 improved wildlife protection by amending the WCA. The main function of the NERC Act was to raise the profile of biodiversity amongst public authorities. Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions.

The Protection of Badgers Act 1992

The Protection of Badgers Act 1992 consolidates previous legislation (including the Badgers Acts 1973 and 1991 Badgers (Further Protection) Act 1991). It makes it a serious offence to:

- kill, injure or take a badger;
- attempt to kill, injure or take a badger; or
- to damage or interfere with a sett.

The 1992 Act defines a badger sett as "any structure or place which displays signs indicating current use by a badger".