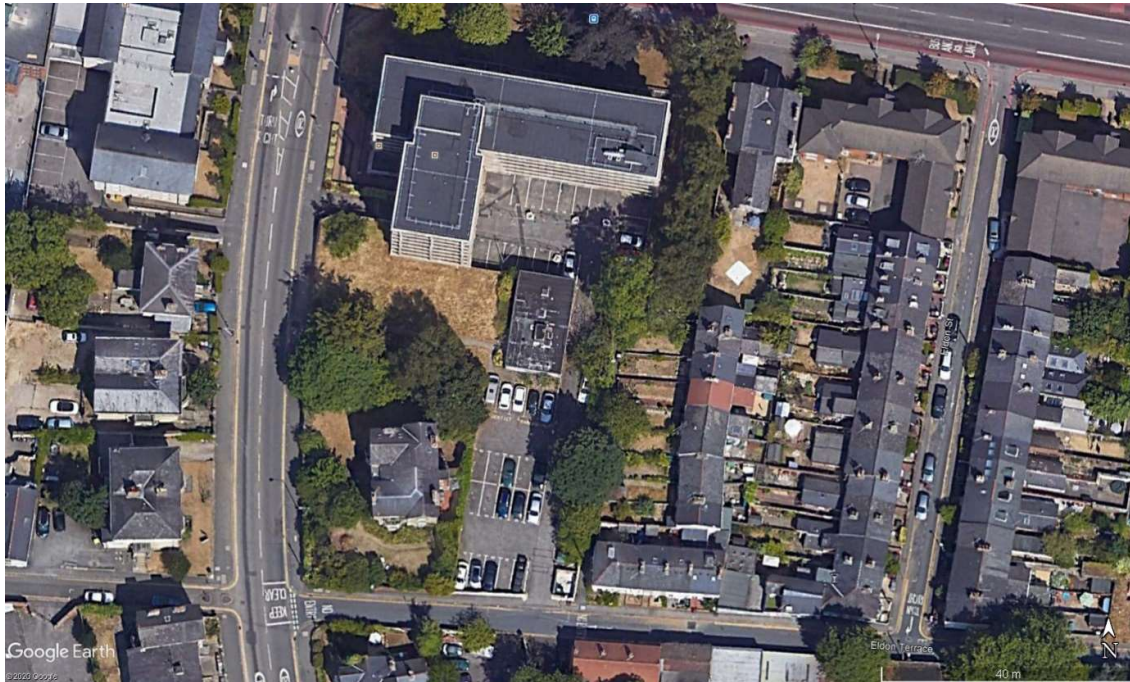




**Mulberry House
Ecological Appraisal Report
Atlas Planning
24 February 2020**



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	Project information
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1 Introduction

1.1 BACKGROUND

- 1.1.1 This report presents the findings of an Ecological Appraisal Report for the habitats present at Mulberry House, 1a Eldon Road, Reading, Berkshire RG1 4DJ. The site is centred on ordnance survey grid reference SU72477319. Site location is shown in Figure 1. The desk study and survey work were carried out by Davidson-Watts Ecology Ltd on behalf of Atlas Planning.
- 1.1.2 The site is situated in an urban residential area with associated street lighting. During the survey continuous traffic was recorded on Eldon Road. The Kennet and Avon canal lies 200m to the north. Reading town centre is to the northwest. Eldon Square is a small urban park located 120m to the south of the site.
- 1.1.3 Adjacent on the north boundary of the site there is a modern multi-storey residential building (Hanover House, 202 Kings Road) with a parking area that extends under the eastern end of the building (Figure 3:TN5). There is an access drive to this car park (currently fenced off) that extends along the eastern boundary of the site from Eldon Terrace. On the south west boundary of the site are two older semi-detached dwellings with large side gardens surrounded by trees and shrubs. These are separated from the site by a stone wall. There are terraced houses with smaller gardens to the east of the site. On the south east boundary is a private car park. A red line boundary of the existing site has been included in Figure 1.
- 1.1.4 The site extends to circa 0.1ha (red line boundary attached) and is now cleared following demolition of the previous dental surgery. It has an existing planning permission for a 7 unit scheme (Planning Ref: 180591) and the client is now proposing 11 units. Plans of the proposed development have been included in Figure 2.

1.2 OBJECTIVES

- 1.2.1 The objectives of the report are to:
- To identify and describe all potentially significant ecological effects associated with the proposed development on ecologically important features;
 - To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
 - To identify how mitigation measures will/could be secured;
 - To provide an assessment of the significance of any residual effects;
 - To identify appropriate enhancement measures; and
 - To set out the requirements for post-construction monitoring

2 Methodology

2.1 DESK STUDY

- 2.1.1 Given the urban nature of the site and the habitats present, it was not considered to be proportionate to undertake a data search. A search was undertaken using aerial mapping (Google Earth Pro and MAGIC (Multi-Agency Geographical Information for the Countryside) <http://www.natureonthemap.naturalengland.org.uk>). A check was undertaken on NBN (National Biodiversity Network) <http://www.data.nbn.org.uk> for any records of important or notable species on or adjacent to the site.

2.2 FIELD SURVEY

- 2.2.1 The field survey of the site aimed to record both the habitat types present at the site as well as identify any evidence of protected and notable species (listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act, Birds of Conservation Concern or locally notable species). This can be done by direct observation and through searching for field signs for each species. The survey was undertaken following 'Guidelines for Preliminary Ecological Appraisal' (CIEEM 2013).

2.3 ZONE OF INFLUENCE

- 2.3.1 The zone of influence has been identified as the area within the red line boundary and adjacent trees that may be affected by the proposed development.

2.4 HABITAT SURVEY

- 2.4.1 The walkover study area therefore consists of all habitats within the site boundary. Attention was also given to any survey corridors that linked the site with other areas of ecological interest or value for protected and/or notable species. Ponds within 250m (Cresswells 2004) were noted, especially where there were good habitat linkages with the site. Non-native invasive species were recorded where present on the site. Plant species follow nomenclature from Stace (2010).
- 2.4.2 The field survey of the study area was conducted on the 18th February 2020. February is considered a sub-optimal month to survey vegetation as most plants and grasses are dormant at this time. However, the conditions were suitable to full identify all habitats present on site.
- 2.4.3 The weather was overcast, 10 °C with light winds.
- 2.4.4 The dominant plant species were recorded and habitats classified according to their vegetation types and presented in the standard Phase 1 habitat survey format. Any habitats suitable for (or evidence of) protected or notable species were also recorded during the survey. Target notes (TN) were made on species and habitats of conservation interest and are included in Figure 3. The abundance of species has been recorded with reference to the DAFOR scale:
- Dominant (D) >75%
 - Abundant (A) 75 – 51%
 - Frequent (F) 50 – 26%
 - Occasional (O) 25 – 11%

- Rare (R) <10%

2.5 ECOLOGICAL EVALUATION AND SIGNIFICANCE

2.5.1 Ecological features and resources have been evaluated based on the approach described in 'Guidelines for Ecological Impact Assessment in the United Kingdom' published by the Chartered Institute of Ecology and Environmental Management (2019) whereby the value of an ecological feature or resource is determined within a defined geographical context using the following criteria:

- International;
- National (England);
- Regional (South-east);
- County (or Metropolitan) (Berkshire);
- District (or Unitary Authority, City or Borough) (Reading);
- Local (or Parish) (Reading);
- Site; and
- Negligible

2.5.2 Significant ecological features have been determined as those valued above site level and/or where there are legal or planning policy obligations. Criteria have been applied as identified in CIEEM (2018) to evaluate the ecological features.

2.5.3 Consideration has also been given to any invasive species on Schedule 9 of the Wildlife and Countryside Act 1981 (e.g. Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*) and as identified as injurious in the Weeds Act 1959 (as amended by the Ragwort Control Act 2003) to include common ragwort *Senecio jacobaea*, broad-leaved dock *Rumex obtusifolius*, curled dock *Rumex crispus*, creeping thistle *Cirsium arvense* and spear thistle *Cirsium vulgare*.

2.5.4 Ecosystem services including supporting services, provisioning services and cultural services are considered where relevant as well as the presence of natural capital and opportunities for enhancement to increase habitat value where they exist.

2.6 ASSESSMENT OF IMPACTS AND SIGNIFICANCE

2.6.1 The document Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013) cites the CIEEM Guidelines for Ecological Impact Assessment (EcIA) as the acknowledged reference on ecological impact assessment. EcIA is a process of identifying, quantifying and evaluating potential effects of development related or other proposed actions on habitats, species and ecosystems. The EcIA must provide reliable and defensible information about, and interpretation of, the likely significant ecological effects from inception to operation, maintenance and, where appropriate, closure and decommissioning.

2.6.2 The impact assessment assesses whether important ecological features will be subject to impacts (positive or negative), the characterisation of these impacts (extent, magnitude, duration, reversibility, timing and frequency) and their effects in the absence of mitigation. It is

good practice for the EclA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation.

- 2.6.3 An assessment is required of the significance of the residual ecological effects of the project (after mitigation) including cumulative effects. For the purpose of EclA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local and legal and policy consequences should be also discussed.
- 2.6.4 Measures should be incorporated in line with the key principles of avoidance, mitigation, compensation and enhancement to reduce and compensate negative ecological impacts and their effects. Provision should be made for ecological enhancements, monitoring impacts and their effects. Evaluation should be undertaken of the success of the proposed mitigation, compensation and enhancement measures and rectification of unexpected negative effects or ineffective mitigation.
- 2.6.5 Consideration should be given to biodiversity net gain in line CIEEM (2019) Biodiversity Net Gain – Principles and Guidance for UK construction and developments and the National Planning Policy Framework (2019).

3 Baseline Conditions

3.1 DESK STUDY

- 3.1.1 MAGIC and NBN were checked for records of protected or notable species. There are records of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* day roosts within 2km of the site and Daubentons *Myotis daubentonii* day roost adjacent to the river as well as local records of serotine *Eptesicus serotinus* and noctule *Nyctalus noctula*.
- 3.1.2 The Kennet and Avon canal lies 200m to the north and forms a wildlife corridor through the local area. There are no habitats on site that link to this corridor due to the network of roads and urban development in the local area.

3.2 HABITATS

- 3.2.1 The habitats on site and associated target notes are shown in the Phase 1 Habitat Map in Figure 3.

Hardstanding

- 3.3 Areas of hard standing on site include a narrow concrete path from Eldon Road to the former surgery building and to the car park, the site of the demolished surgery building, the tarmac car park spaces to the south of the building, and the tarmac access road from Eldon Terrace.
- 3.3.1 This habitat is artificial and offers no ecological value: **negligible**

Amenity Grassland

- 3.4 The western half of the site consists of amenity grassland with a large area of wood chips. surrounded by vegetation including dominant perennial ryegrass *Lolium perenne*, frequent Yorkshire fog *Holcus lanatus* and occasional rape *Brassica* sp., creeping cinquefoil *Potentilla reptans*, ribwort plantain *Plantago lanceolata* and *Cyclamen* sp. Old bluebell *Hyacinthoides non-scripta* leaves are visible under the mulberry *Morus nigra* tree but these are likely to be planted given the urban nature of the site. This area is behind heras fencing.
- 3.5 The accessible portion of the amenity grassland includes frequent perennial ryegrass, red fescue *Festuca rubra*, occasional Yorkshire fog and rare occurrence of common bent *Agrostis capillaris*. There are occasional dandelion *Taraxacum* sp., creeping cinquefoil, ribwort plantain, violet *Viola* sp. and ground ivy *Glechoma hederacea* and rare occurrences of common ragwort *Jacobaea vulgaris*, yarrow *Achillea millefolium*, dove's foot crane's bill *Geranium molle*, bulbous buttercup *Ranunculus bulbosus* and ivy *Hedera helix*. There is also some bare soil and moss throughout the grassland. The areas that were not accessible behind the Heras fencing appear to contain the same species, as this is a continuous amenity grassland area.
- 3.5.1 Although the accessible portion of grassland has greater diversity than you would normally expect for amenity grassland, the area is small, isolated and regularly mown which means that it has no structure to provide shelter for invertebrates or small mammals and the flora does not flower or produce seeds making it of little value as a food resource.
- 3.5.2 Habitat value: **negligible**
- Individual trees
- 3.5.3 There is a black mulberry tree in the north west corner (plate 1, TN1). This is a naturalised tree from the 17th century and is not native.
- 3.5.4 There is a line of semi-mature and mature broadleaved trees along eastern boundary. Tree species include a beech *Fagus sylvatica*, a silver birch *Betula pendula*, a sycamore *Acer pseudoplatanus* and a black pine *Pinus nigra* (Plate 5).
- 3.6 There is a concrete path running east west across the western part of the site. To the south of this path are a beech tree, a twin stemmed birch tree and shrubs including lilac. The area under the trees consists of a mixture of amenity grassland, bare soil, wood chips, and ivy. Ivy is also growing up the garden wall which runs along this boundary (Plate 4).
- 3.6.1 The trees are uncommon in the local urban context and could not be replaced in the short or medium term.
- 3.6.2 Habitat value: **local**
- Tall ruderal herbs
- 3.7 To the south of the demolished building (TN3) is an area of broken paving which supports a mix of amenity plants and tall ruderal vegetation (Plate 2, TN4). Species include occasional cotoneaster *Cotoneaster* sp., wall flower *Erysimum* sp., butterfly bush *Buddleja* sp., creeping cinquefoil, dandelion, creeping thistle *Cirsium arvense*, and ivy.
- 3.8 Another strip of ruderal vegetation with amenity grasses and areas of bare soil is located immediately to the west of the demolished building (Plate 3, TN 2). Species in this location

include occasional daisy *Bellis perennis*, creeping thistle, fat hen *Chenopodium album*, bristly ox-tongue *Helminthotheca echinodes*, ribwort plantain and spurge *Euphorbia* sp.

- 3.8.1 The species present occur readily in undisturbed areas and provide a localised resource of nectar and seeds for invertebrates. This area of habitat is small, isolated and easy to recreate. It offers little in the way of shelter and structure and is locally common. It is therefore of **site** value.

3.9 POTENTIAL FOR PROTECTED/NOTABLE SPECIES

- 3.9.1 The broadleaved trees on site have potential to support nesting birds. Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). The species that are likely to be using these habitats are locally common urban birds and the value of these is likely to be site value with legal obligations.
- 3.9.2 There is no habitat structure on site for further protected or notable species and the high light levels generally in the area would limit the diversity of nocturnal species such as bats for foraging and commuting.

3.10 NON-NATIVE INVASIVE SPECIES

- 3.11 Cotoneaster was recorded on site but was not considered to be a significant issue in an urban site as long as pruning are disposed of responsibly.

3.12 SURVEY CONSTRAINTS

- 3.12.1 The site was divided into sections by Heras fencing. The section containing the mulberry tree and the section containing trees and shrubs to the south of the footpath were not physically accessible but were fully visible through the fencing to enable a habitat assessment.

4 Planning Policy and Legislation

4.1 NATIONAL PLANNING POLICY

- 4.1.1 The National Planning Policy Framework (NPPF) (2019) Chapter 15 outlines out how the planning system should contribute to and enhance the natural and local environment by protecting sites of biodiversity, recognising wide benefits from natural capital, minimising impacts on and providing net gains for biodiversity. If a proposed development would result in significant harm to the natural environment, Site of Special Scientific Interest or irreplaceable habitats which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused. Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.
- 4.1.2 To minimise impacts on biodiversity and geodiversity, planning policies should identify and map components of the local ecological networks, including the hierarchy of sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat management, enhancement, restoration or creation, promote

the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species and identify and pursue opportunities for securing measurable net gains for (Paragraph 174b).

- 4.1.3 The NPPF retains protection for Local Wildlife Sites which are clearly recognised in the framework as locally designated sites of importance for biodiversity (Paragraph 174a). The policy provides the direction for local authorities to identify, map and protect these sites through local plans. The new policy also requires protection of Local Wildlife Sites to recognise the importance and the contribution that they make to wider ecological networks, as stated in the Government's own Natural Environment White Paper.
- 4.1.4 The government circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System still remains the key reference material to support obligations under the NPPF.
- 4.1.5 The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. Fifty-six habitats of principal importance and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Bats are listed as priority species under the NERC Act 2006.

4.2 LOCAL PLANNING POLICIES

- 4.2.1 Reading Borough Local Plan (adopted November 2019) Policy EN12: Biodiversity and the Green Network states:

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.

- 4.2.2 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.

4.2.3 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.

4.2.4 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.

4.3 LEGISLATION

4.3.1 Animal and plant species that are considered to be threatened as a result of their rarity, vulnerability or persecution are afforded protection through both European and UK law. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 protects a number of rare and vulnerable animal and plant species listed for protection in Europe (including bats), whilst the Wildlife and Countryside Act, 1981 (as amended by the Countryside and Rights of Way Act, 2000 and NERC Act 2006) affords protection to wild bird species requiring protection in Europe and other rare or vulnerable native species of animals and plants. In addition, the Animal Welfare Act 2006 further protects wild animals from unnecessary suffering when under the control of man and combines with the Wild Mammals (Protection) Act 1996, which protects wild mammals from intentional cruelty, and the Protection of Badgers Act 1992, which affords protection specifically to badgers.

5 Evaluation and Recommendations

5.1.1 The black mulberry at TN1 has been assessed as a category C tree by the Tree Report (Hellis 2019) and is the subject of a Tree Preservation Order dated 2005. It has been identified that it should be replaced with a white mulberry which would have a lifespan of several hundred years and make a positive contribution to the conservation area.

5.1.2 The remaining trees are to be retained during and following the development. There is potential for the trees along the eastern boundary to be damaged during the construction works. The Tree Report has identified locations for tree barriers during the primary construction phase. The hard surfacing around the beech and the silver birch will be installed using a Tree Root Protection System. Recommendations have been made for works in proximity to existing trees and due consideration should be given to the future growth and maintenance requirements of the trees.

- 5.1.3 The removal of the mulberry tree or the pruning of the existing trees has the potential to disturb nesting birds or damage birds' nests whilst in use if undertaken at the wrong time of year.
- 5.1.4 Consideration should be given to nesting birds during the tree removal. The tree removal should take place outside the nesting bird season (March to August) where possible. Where this cannot be avoided, a nesting bird survey should be undertaken by a suitably experienced ecologist to determine whether active birds' nests are present. Where present, the nest should be left undisturbed with an appropriate buffer until the dependent young birds have fledged.
- 5.1.5 Any additional lighting should be designed to minimise impacts on nocturnal species such as hedgehogs or foraging bats. This design should avoid additional light spill onto the boundary trees on the eastern boundary.

5.2 ENHANCEMENT

- 5.2.1 In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment), Local Planning Policy and CIEEM (2019), every effort should be made to enhance the biodiversity value of the site.
- 5.2.2 Landscaping for the proposed development could include additional native shrubs and trees which would provide additional foraging and shelter resources for local birds and small mammals.
- 5.2.3 Integral bat or bird boxes or nest bricks could be built into the building on at least two sides to provide additional roosting/nesting sites with a range of temperatures.
- 5.2.4 Plantings could include native bulbs and flowers that are attractive to pollinators with the grassland areas around the retained trees

5.3 LIFESPAN OF SURVEYS

- 5.3.1 Where the survey data is 18 months or older, it is likely that update surveys and reporting will be required (CIEEM 2019).

5.4 RESIDUAL IMPACTS

- 5.4.1 If the above measures are followed and ecological enhancement built into the scheme, there would be a short-term loss of nesting habitat for local birds (site value with legal obligations) but a long net gain for biodiversity.

6 References

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Figure 1 Site Location and Block Plan

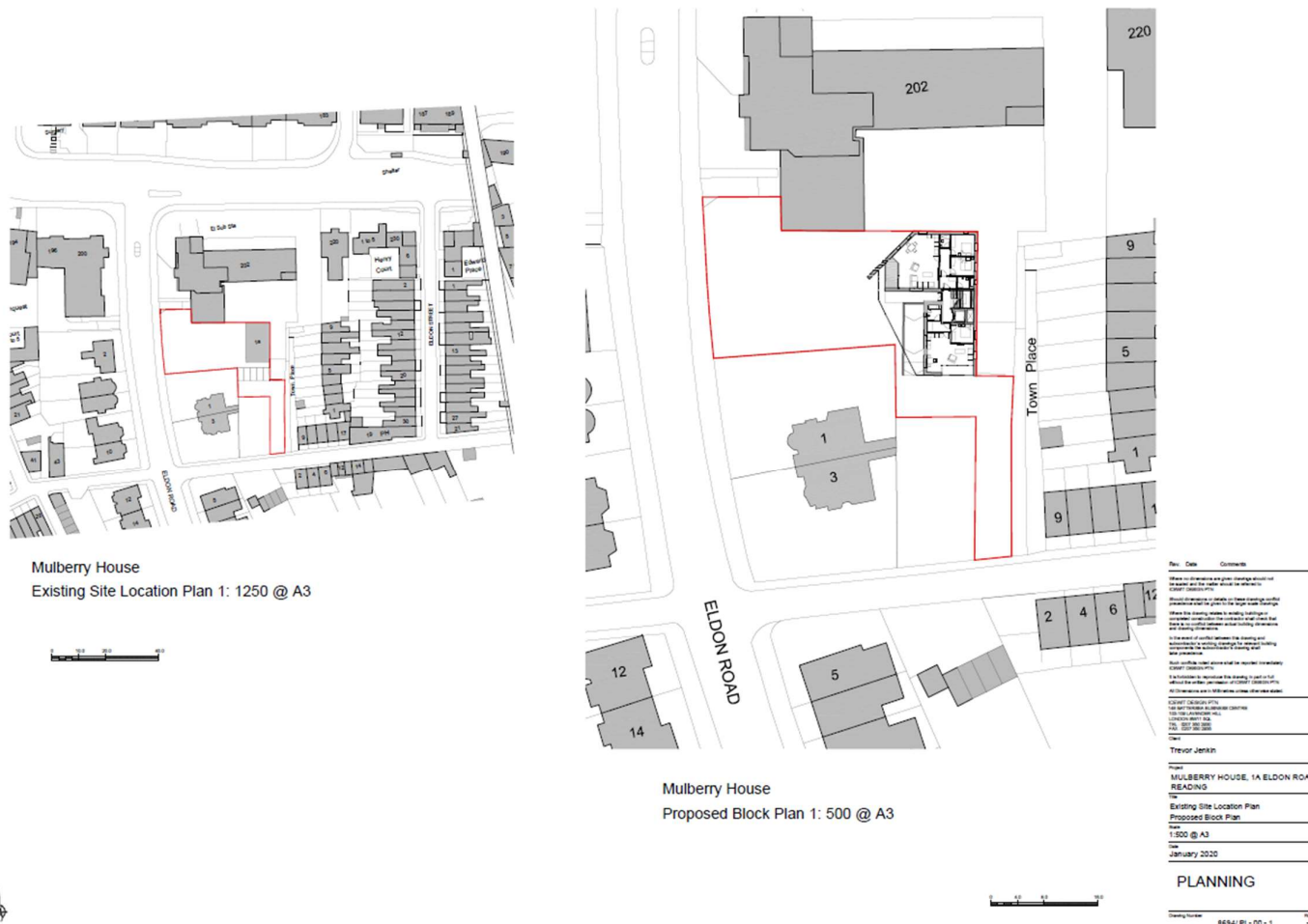




Figure 3 Phase 1 Habitat Map



Appendix A Plates

Plate 1: Area around mulberry tree TN1



Plate 2: Ruderal vegetation to west of demolished building TN2

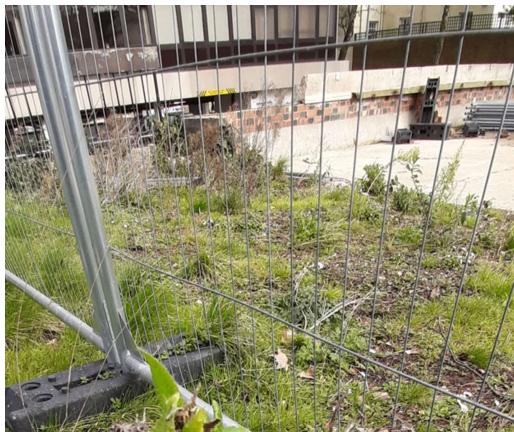


Plate 3: View from south of demolished building TN3 and TN4



Plate 4: Lilac, ivy and twin stemmed birch tree in front of neighbouring garden wall



Plate 5 View from Eldon Road looking east



Plate 6 Ruderal vegetation and bare soil at TN2

