The Ecology Consultancy

Kings House School, Richmond / Ground Level Tree Assessment / Report for Land Use Consultants

King's House School, London Borough of Richmond-Upon Thames

Ground Level Tree Assessment

Report for Land Use Consultants

Job Number	7514.6		
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Summary of key issues

The Ecology Consultancy was commissioned to carry out an update ground level tree assessment (GLTA) of King's House School, London Borough of Richmond-upon-Thames. The main findings of the survey are as follows:

- **Bats** – Five trees (T1, T2, T3, T4 and T17) on site were assessed as providing low potential to support roosting bats. All five trees assessed as having potential to support roosting bats are currently scheduled to be retained and will not be directly impacted by proposed works.
- A sensitive lighting regime and the provision of bat roosting opportunities is recommended to enhance the biodiversity value of the site in accordance with national and local planning policies.

1 Introduction

BACKGROUND TO COMMISSION

1.1 The Ecology Consultancy was commissioned by Land Use Consultants on behalf of King's House School in December 2020, to carry out an update ground level tree assessment of trees at King's House School. London Borough or Richmond-upon-Thames. This follows a GLTA conducted in December 2018 (The Ecology Consultancy, 2019), which found trees T1, T2, T3, T4 and T17 with potential to support roosting bats.

1.2 This assessment was carried out in order to provide ecological information to inform the construction of the redevelopment of the site. Land considered within the site boundary is hereon referred to as 'the site' as indicated on the plan provided by the client (David Miller Architects, 2020a) and shown in Appendix 1, Figure 1.

SCOPE OF THE REPORT

1.3 This report outlines the methodologies and results of the Ground Level Tree Assessment conducted on 17 December 2020. The aim of this inspection is to detail the methodology of a ground level tree inspection for the site. This will be used to identify any potential ecological constraints associated with the proposed development and/or to identify the need for additional survey work to further evaluate any impact that may risk contravention of legislation or policy relating to protected species and nature conservation.

1.4 This report has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM) and as detailed in British Standard 42020:2013 Biodiversity - Code of Practice for Biodiversity and Development (BSI, 2013).

1.5 The methodology of the assessment was in accordance with the Bat Conservation Trust – *Bat Surveys: Good Practice Guidelines 3rd Edition* (Collins, 2016).

1.6 A map of results for the ground level tree assessment is provided in Appendix 1. Photographs are provided in Appendix 2. The relevant legislation and policies relating to nature conservation is set out in Appendix 3.

1.7 The survey and assessment was conducted by John Myerscough BSc (Hons) MSc and the report was written by Kalia Symeonidou BSc MSc QCIEEM, both ecologists with 5

and 3 years' commercial bat survey experience, respectively, who are competent in carrying ground level tree assessments for their suitability for bats.

SITE CONTEXT AND STATUS

1.8 The proposed development is located at Kings House School, Kings Road, London Borough of Richmond-upon-Thames. The site is located in a suburban environment with the local area dominated by residential properties and associated gardens. The nearest large area of greenspace is East Sheen and Richmond Cemeteries and Pesthouse Common Site of Importance for Nature Conservation (SINC) an area of grassland habitat located 300 metres (m) east of the site. The site is approximately 0.4 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TQ1871 7475.

DEVELOPMENT PROPOSALS

1.9 A number of the existing school buildings, including the existing music block, gym, PE store, side extension and garage will be demolished in order to create a central quad area and facilitate construction of the new teaching block. The new classroom block is due to be built to the South of the site resulting in the removal of two trees, (T20 and G2.1), as well as areas of scrub, introduced shrub and amenity garden (David Miller Architects, 2020). Proposed new landscaping includes areas of biodiverse green roofs and climbing plants.

RELEVANT LEGISLATION AND PLANNING POLICY

1.10 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 3:

- The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 (commonly referred to as the Habitats Regulations); and
- Wildlife and Countryside Act 1981 (as amended).

1.11 National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2019) requires local authorities to avoid and minimise impacts on biodiversity and should provide net gains in biodiversity when taking planning decisions.

1.12 Other planning policies at the local level which are of relevance to this development include The Richmond Local Development Plan (Richmond, 2009). Further information is provided in Appendix 3.

2 Methodology

GROUND LEVEL TREE ASSESSMENT

2.1 The ground level tree assessment was carried out using close focusing binoculars and a high-powered torch. The surveyor inspected the trees to be impacted by the works to identify features (such as knot and rot holes, frost cracks, hazard beams, fissures in deadwood, lifted bark and callous rolls) with potential to support roosting bats. Where features were observed, evidence of roosting bats, including droppings, feeding remains such as moth wings, scratch marks around suitable crevices and urine and fur oil stains, was searched for.

2.2 The objectives of the ground based assessment were to:

- identify any arboreal features suitable to support roosting bats;
- assess the potential importance of the trees to provide roosting locations for bats; and
- determine potential impacts that the proposed tree works may have on bats or their roosts.

Assessment Criteria

2.3 All surveyed trees that may have a level of potential for a roost were assessed using BCT's guidelines (Collins, J. et al (2016). The following values were assigned in considering the availability of suitable features for roosting bats:

- **negligible value** – No visible features that could be used by bats for roosting
- **low value** – One or two minor features, possibly associated with feeding or night-time roosts, such as:
  - sparse ivy *Hedera helix*;
  - minor branch splits or fissures;
  - small areas of loose bark;
  - features less than ten years old.
- **moderate value** – Features that may provide a more secure site for individuals or small groups of bats, such as:
  - dense ivy;
  - significant branch splits;

- small cavities such as woodpecker holes;
- features present for between 10 and 30 years.

- **high value** – Features of particular significance, suitable for high priority roost such as maternity roosts and likely to be used by larger groups of bats, such as:
  - features that provide rare or uncommon conditions in the local area;
  - large cavities or extensive branch or trunk splits;
  - multiple features in the same tree;
  - features present for more than 30 years that could have been used by several generations of bats.
- **confirmed roost** – Evidence indicating use by bats, such as:
  - droppings, carcasses, feeding remains;
  - bats heard 'chattering' inside on a warm day or at dusk; and
  - bats seen roosting or observed flying from a feature.

2.4 A standard recording form was completed for each tree that was likely to be impacted by the proposed development. This included recording the details listed above as well as the species, relative age and girth of the tree and a photograph of each tree or tree group. Trees with no value were not recorded.

DATA VALIDITY AND LIMITATIONS

2.5 Whilst every effort has been made to provide a true assessment of the habitats on and surrounding the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.6 Although not all trees were surveyed, all trees on site likely to be impacted by the development proposals were subject to a ground level tree assessment, comprising 18 trees. In this way, the impacts of the development on roosting bats has been thoroughly investigated, and therefore, the limitation is not considered to be significant.

2.7 As T1 to T4 were evergreen holm oaks not all aspects of the tree were visible from the ground. Therefore, even though no PRF's were identified during the Ground level tree assessment a precautionary assessment of the value of the trees has been made due to the size and age of the trees.

2.8 Accordingly, it is considered that this report accurately reflects the potential for roosting bats within the trees surveyed.

3 Results

Ground Level Tree Assessment

3.1 Of the 18 trees surveyed on the site, 13 trees contained no potential roosting features (PRFs) that could be used by bats and were accordingly assessed as providing **negligible** potential for roosting bats. Five trees were assessed as providing **low** potential for roosting bats. A full description of each tree or tree group assessed as providing low or moderate potential for roosting bats are provided in Table 3.1 as follows, in accordance with the numbered proposed site plan (David Miller Associates, 2020b).

3.2 All trees scheduled to be removed were surveyed, as per the most recent proposals (David Miller Associates, 2020b).

Table 3.1: Ground Level Tree Assessment

Tree Number / Group & Species	Condition and Notes	Bat Roosting Potential	To be retained or removed
T1/Holm Oak	A mature holm oak tree with an approximate height of 25 meters (m) with two main stems and a Diameter at Breast Height (DBH) of 60cm. No cavities were recorded, however, as the tree is evergreen it was still in full leaf so PRFs could be obscured from view (see Appendix 2, Photograph 1).	Low	Retained
T2/Holm Oak	A mature holm oak tree with an approximate height of 25m with three main stems and a DBH of 70cm. No cavities were recorded, however, as the tree is evergreen it was still in full leaf so PRFs could be obscured from view (see Appendix 2, Photograph 1).	Low	Retained
T3/Holm Oak	A mature holm oak tree with an approximate height of 25 meters (m) with one main stem and a Diameter at Breast Height (DBH) of 60cm. No cavities were recorded, however, as	Low	Retained

Tree Number / Group & Species	Condition and Notes	Bat Roosting Potential	To be retained or removed
	the tree is evergreen it was still in full leaf so PRFs could be obscured from view (see Appendix 2, Photograph 1).		
T4/Holm Oak	A mature holm oak tree with an approximate height of 25 meters (m) with one main stem and a Diameter at Breast Height (DBH) of 60cm. No cavities were recorded, however, as the tree is evergreen it was still in full leaf so PRFs could be obscured from view (see Appendix 2, Photograph 1).	Low	Retained
T14/Common Lime	A semi-mature pollarded common lime tree with an approximate height of 20 meters (m) with one main stem and a Diameter at Breast Height (DBH) of 40cm. Tree was in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 2).	Negligible	Retained
T15/Common Lime	A semi-mature pollarded common lime tree with an approximate height of 20 meters (m) with one main stem and a Diameter at Breast Height (DBH) of 40cm. Tree was in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 2).	Negligible	Retained
T16/Strawberry	A mature strawberry tree with approximate height of 5m with multiple stems and a DBH of 40cm. Tree was in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 3).	Negligible	Retained
T17/False acacia	A semi mature false acacia tree with approximate height of 10m with two main stems ad a DBH of 30cm. The main feature on	Low	Retained

Tree Number / Group & Species	Condition and Notes	Bat Roosting Potential	To be retained or removed
	the tree was a gap between the infusion of the two main stems (see Appendix 2, Photograph 4)		
T18/Yew	A semi mature yew tree with approximate height of 8m with one main stem and a DBH of 30cm. Tree was in good condition with no PRFs recorded (negligible potential).	Negligible	Retained
T19/Strawberry	A mature strawberry tree with approximate height of 5m with multiple stems and a DBH of 40cm. Tree was in good condition with no PRFs recorded (negligible potential).	Negligible	Retained
T20/Ash	A semi mature ash tree with approximate height of 15m with one stem and a DBH of 40cm. Tree was in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 5).	Negligible	Removed
T21/Maidenhair	A semi mature maidenhair tree with approximate height of 15m with two stem and a DBH of 40cm. No cavities were recorded, was recorded in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 5).	Negligible	Retained
T22/Common lime	A semi mature common lime tree with approximate height of 15m with one stem and a DBH of 40cm. Tree was in good condition with no PRFs recorded (negligible potential) (see Appendix 2, Photograph 5).	Negligible	Retained

Tree Number / Group & Species	Condition and Notes	Bat Roosting Potential	To be retained or removed
G2/Holm, Cherry and Leylandii	A group of semi mature and young trees including holm, cherry and leylandii. Trees were in good condition with no PRFs recorded (negligible potential)	Negligible	Partially removed

4 Conclusions and Recommendations

CONCLUSIONS

4.1 Following the ground level tree assessment, habitat suitable for roosting bats has been identified. As such, precautionary measures will be required to trees that are due to be impacted by the proposals.

RECOMMENDATIONS

Bats

4.2 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations (Amended) (EU Exit) 2019. Under this legislation, it is an offence to deliberately capture, kill, disturb and damage or destroy a bat roost. Some species of bat are also Species of Principal Importance species.

4.3 The ground level tree assessment identified five trees with low potential to support roosting bats. The following recommendations are provided for each level of potential identified.

4.4 Negligible trees: Works to trees with negligible value to roosting bats can proceed as normal, with due consideration to other constrains such as nesting birds detailed in Preliminary Ecological Appraisal (The Ecology Consultancy, 2019).

4.5 Low potential trees: Trees T1, T2, T3, T4 and T17, assessed as having low potential to support roosting bats are due to be retained and not be impacted by proposed works, and as such do not required any further action with regards to roosting bats. However, should the works require these trees to be removed or impacted, they must be subject to a precautionary method of working whereby works are timed to avoid periods when bats are most likely to be present and/or most vulnerable to disturbance (during hibernation/maternity periods). Therefore, works should be timed for during either mid-March – end April or mid-September – end October.

4.6 Works must be completed under a ‘soft fell’ precautionary approach, whereby suitably qualified tree surgeons will lower cut any substantial limbs to the ground to be left overnight to allow bats (if present) to make their way out.

4.7 As bats are highly mobile, and regularly switch between roost sites both within and between years, their presence should be considered throughout all stages of tree work. If bats, or evidence of bats, are found during operations already underway, the works must cease immediately until advice on how to proceed has been obtained from a licenced bat ecologist.

4.8 Should a bat roost confirmed to be present the trees listed above, a Natural England licence and mitigation strategy may be required.

4.9 To comply with legislation, any works to trees should be undertaken in line with all recommendations provided in the PEA report (The Ecology Consultancy, 2021), including breeding birds.

Lighting

4.10 While different species of bat react differently to night time lighting, research has found that bats overall are sensitive to artificial lighting. Excessive and/or poorly directed lighting may delay bats in emerging from their roosts; shortening the time available for foraging, as well as causing bats to move away from suitable foraging grounds, movement corridors or roosting sites, to alternative dark areas (Jones, 2000).

4.11 To minimise indirect impacts from lighting associated with any proposed changes to the site it is recommended that artificial lighting is only directed where necessary for health and safety reasons. Lighting on site should be kept to a minimal with particular attention to illumination of any trees, hedgerows and dark zones on-site, or suspected or confirmed bat roosting sites. Lighting should only be used for the period of time for which it is required (Jones, 2000). This can be achieved by following accepted best practice (Fure, 2006; Institute of Lighting Engineers 2018 Bat Conservation Trust 2011):

- The level of artificial lighting including flood lighting should be kept to an absolute minimum;
- Where this does not conflict with health and safety and/or security requirements, the site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise);
- Lighting required for security or safety reasons should use a lamp of no greater than 2000 lumens (150 Watts) and should comprise sensor-activated lamps;

- Lights utilising LED technology are the preferred option as these lights do not emit on the UV spectrum, are easily controllable in terms of direction/spill and can be turned on and off instantly;
- Avoid the use of sodium or metal halide lamps, these gas lamps require a lengthy period in which to turn off and the diffuse nature of the light emitted makes light spillage a significant problem.
- Lights required for night time deliveries or security patrols could be set to activate with pressure activated sensors set into the ground;
- Lighting should be directed to where it is needed to minimise light spillage. This can be achieved by limiting the height of the lighting columns and by using as steep a downward angle as possible and/or a shield/hood/cowl/ that directs the light below the horizontal plane and restricts the lit area;
- Artificial lighting should not directly illuminate any confirmed or potential bat roosting features or habitats of value to commuting/foraging bats. Similarly, any newly planted linear features or compensatory bat roosting features should not be directly lit; and
- Lighting design computer programs can be used to predict the potential impacts of light spillage.

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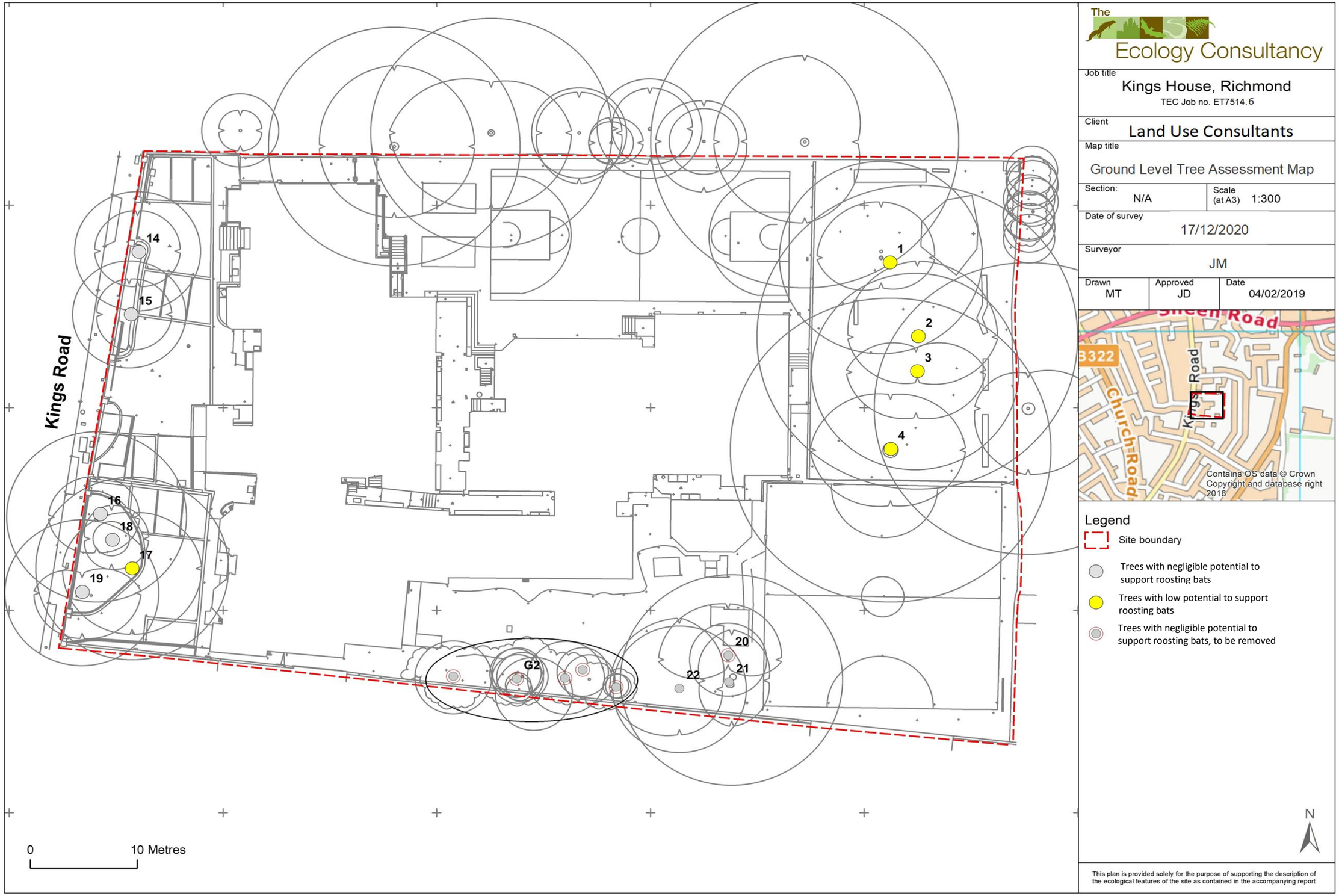
The Ecology Consultancy (2021) Ref: 7514.6 *King's House School, Preliminary Ecological Appraisal:* Report for Land Use Consultants

Appendix 1: Ground Level Tree Assessment Map

Figure 1: Ground Level Tree Assessment Map



Appendix 2: Photographs

Photograph 1:
T1 to T4 – Line
Of holm oak trees.
Scheduled for minor works.

Photograph 2:
T14 and T15. Pair of
common limes.
Scheduled to be retained.

Photograph 3:
T16 – Strawberry tree,
Scheduled to be retained.

Photograph 4:
T17 – False acacia, circle Indicates potential roosting feature. Scheduled to be retailed.

Photograph 5:
T20 –
Semi mature ash tree. Schedule to be removed.

Appendix 3: Legislation and Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[1] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

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

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 (which includes smooth snake, sand lizard,

[1] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
    - to impair their ability:
        - to survive, breed, or reproduce, or to rear or nurture young;
        - to hibernate or migrate[3]
    - to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

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

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity of a local population.

Birds

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird:
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to

August[2]. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Sites and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded

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

SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species (Amended) (EU Exit) Regulations 2019. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12‑200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species (Amended) (EU Exit) Regulations 2019. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12‑200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Sites and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement (PPS9) and was updated in February 2019, as the key national planning policy concerning nature conservation. The NPPF emphasises the need for suitable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – that is those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

56 Priority Habitats and 943 Priority Species (formally known as UK BAP Habitats and Species) have been listed that are of principal importance for the conservation of biodiversity in the UK. Priority Habitats include 'Lowland Mixed Deciduous Woodland' and 'Hedgerows'.

D REGIONAL PLANNING POLICY

The London Plan (Publication version 2020)

The London Plan is the statutory Spatial Development Strategy for Greater London prepared by the Mayor of London in accordance with the Greater London Authority Act 1999 (as amended). Chapter 8 includes nine policies relating to the protection, enhancement, creation, promotion and management of biodiversity and green infrastructure in support of the London Environment Strategy (GLA, 2018). Four of these Green Infrastructure and Natural Environment policies (G1, G5, G6 & G7) are considered relevant to this assessment, as detailed below.

Policy G1 Green infrastructure

A London's network of green and open spaces, and green features in the built environment should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.

B Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with Part A.

C Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to:

1) identify key green infrastructure assets, their function and their potential function

2) identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

D Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

Policy G5 Urban greening

A Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

B Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development (excluding B2 and B8 uses).

C Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

Policy G6 Biodiversity and access to nature

A Sites of Importance for Nature Conservation (SINCs) should be protected.

B Boroughs, in developing Development Plans, should:

1) use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks

2) identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them

3) support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans

4) seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context

5) ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.

C Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:

1) avoid damaging the significant ecological features of the site

2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site

3) deliver off-site compensation of better biodiversity value.

D Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

E Proposals which reduce deficiencies in access to nature should be considered positively

Policy G7 Trees and woodlands

A London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.

B In their Development Plans, boroughs should:

1) protect 'veteran' trees and ancient woodland where these are not already part of a protected site

2) identify opportunities for tree planting in strategic locations.

C Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees

removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

London's Environment Strategy (2018)

The London Environment Strategy set out an ambitious vision for improving London's environment for the benefit of all Londoners. This is the first strategy to bring together approaches to every aspect of London's environment, integrating the following areas:

- Air quality
- Green infrastructure
- Climate change mitigation and energy
- Waste
- Adapting to climate change
- Ambient noise
- Low carbon circular economy

The overall aim of the strategy is for London to be the world's greenest global city by making it greener, clearer and ready for the future. The London Environment Strategy combines multiple previous strategies including the Biodiversity Strategy (GLA, 2002).

Policy 5.2.1 Protect a core network of nature conservation sites and ensure a net gain in biodiversity

Proposal 5.2.1.a The London Plan includes policies on the protection of Sites of Importance for Nature Conservation (SINCs) and Regionally Important Geological Sites (RIGS)

Proposal 5.2.1.b The Mayor will develop a biodiversity net gain approach for London, and promote wildlife-friendly landscaping in new developments and regeneration projects

E LOCAL PLANNING POLICY

RICHMOND LOCAL PLAN

The following policies, saved from the 2018 Local Plan are of potential relevance to this site:

POLICY LP 9

Floodlighting

Floodlighting, including alterations and extensions, of sports pitches, courts and historic and other architectural features will be permitted unless there is demonstrable harm to character, biodiversity or amenity and living conditions.

The following criteria will be taken into account when assessing floodlighting:

"3. the impacts on biodiversity and wildlife;"

Favourable consideration will be given to the replacement or improvement of existing lighting where it provides improvements to existing adverse impacts.

POLICY LP 15

Biodiversity

A. The Council will protect and enhance the borough's biodiversity, in particular, but not exclusively, the sites designated for their biodiversity and nature conservation value, including the connectivity between habitats. Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats including National Nature Reserves, Sites of Special Scientific Interest (SSSI) and Other Sites of Nature Importance as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames Biodiversity Action Plans. This will be achieved by:

1. protecting biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance (including buffer zones), as well as other existing habitats and features of biodiversity value;

2. supporting enhancements to biodiversity;

3. incorporating and creating new habitats or biodiversity features, including trees, into development sites and into the design of buildings themselves where appropriate; major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements, wherever possible;

4. ensuring new biodiversity features or habitats connect to the wider ecological and green infrastructure networks and complement surrounding habitats;

5. enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and

6. maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan.

B. Where development would impact on species or a habitat, especially where identified in the relevant Biodiversity Action Plan at London or local level, or the Biodiversity Strategy for England, the potential harm should:

1. firstly be avoided (the applicant has to demonstrate that there is no alternative site with less harmful impacts),

2. secondly be adequately mitigated; or

3. as a last resort, appropriately compensated for.

POLICY LP 16

Trees, Woodlands and Landscape

A. The Council will require the protection of existing trees and the provision of new trees, shrubs and other vegetation of landscape significance that complement existing, or create new, high quality green areas, which deliver amenity and biodiversity benefits.

B. To ensure development protects, respects, contributes to and enhances trees and landscapes, the Council, when assessing development proposals, will:

Trees and Woodlands

1. resist the loss of trees, including aged or veteran trees, unless the tree is dead, dying or dangerous; or the tree is causing significant damage to adjacent structures; or the tree has little or no amenity value; or felling is for reasons of good arboricultural practice; resist development that would result in the loss or deterioration of irreplaceable habitat such as ancient woodland;

2. resist development which results in the damage or loss of trees that are considered to be of townscape or amenity value; the Council will require that site design or layout ensures a harmonious relationship between trees and their surroundings and will resist development which will be likely to result in pressure to significantly prune or remove trees;

3. require, where practicable, an appropriate replacement for any tree that is felled; a financial contribution to the provision for an off-site tree in line with the monetary value of the existing tree to be felled will be required in line with the 'Capital Asset Value for Amenity Trees' (CAVAT);

4. require new trees to be of a suitable species for the location in terms of height and root spread, taking account of space required for trees to mature; the use of native species is encouraged where appropriate;

5. require that trees are adequately protected throughout the course of development, in accordance with British Standard 5837 (Trees in relation to design, demolition and construction – Recommendations).

The Council may serve Tree Preservation Orders or attach planning conditions to protect trees considered to be of value to the townscape and amenity and which are threatened by development.

Landscape

1. require the retention of important existing landscape features where practicable;

2. require landscape design and materials to be of high quality and compatible with the surrounding landscape and character; and

3. encourage planting, including new trees, shrubs and other significant vegetation where appropriate.

POLICY LP 17

Green roofs and walls

Green roofs and/or brown roofs should be incorporated into new major developments with roof plate areas of 100sqm or more where technically feasible and subject to considerations of visual impact. The aim should be to use at least 70% of any potential roof plate area as a green / brown roof.

The onus is on an applicant to provide evidence and justification if a green roof cannot be incorporated. The Council will expect a green wall to be incorporated, where appropriate, if it has been demonstrated that a green / brown roof is not feasible.

The use of green / brown roofs and green walls is encouraged and supported in smaller developments, renovations, conversions and extensions.

The Ecology Consultancy is part of the Temple Group.

Making places better for people and wildlife

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