CHURCHVIEW ROAD TWICKENHAM

PRELIMINARY ECOLOGICAL APPRAISAL

UK & EUROPEAN PROPERTY DEVELOPMENTS LTD

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ACD ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

Contents

1.0 EXECUTIVE SUMMARY

1.1 In April 2017, ACD Environmental Ltd carried out an extended Phase 1 Habitat Survey of a parcel of land at Churchview Road, Twickenham, hereinafter referred to as the Application Site.

1.2 The Application Site comprises a row of garages, with associated hardstanding and areas of amenity grassland. There is an area of bare ground with some ruderal species and a large compost heap. Numerous mature trees and an outgrown hedgerow form the north eastern and north western boundaries.

1.3 The Application Site will be subject to a planning application for three mews houses.

1.4 The buildings were assessed as having low to negligible potential for roosting bats and no evidence of roosting bats was found. No further surveys are recommended, however a precautionary approach to demolition is recommended. The roof of the garages should be dismantled carefully by hand and a suitably licensed ecologist should be present to oversee demolition. Precautionary measures have also been outlined for clearance of the compost heap behind the garages as there is potential for small numbers of reptiles to be present.

1.5 Implementing all of the recommendations detailed within this report will ensure that there are no significant impacts upon protected species and that the proposals will be in conformity with relevant legislation and policy.

1.6 Measures to mitigate for impacts have been set out along with recommendations for enhancement of the site's ecological value.

2.0 INTRODUCTION, CONTEXT AND PURPOSE

Introduction

2.1 In April 2017, ACD Environmental Ltd was commissioned by UK & European Developments Ltd to carry out a Preliminary Ecological Appraisal (PEA) of a parcel of land at TQ1462573082 (OS Grid Reference), hereinafter referred to as the Application Site.

2.2 The Application Site comprises a row of ten garages, hardstanding, amenity grassland, an area of bare ground with ruderal species and a large compost heap. An outgrown hedgerow forms the north western site boundary and mature trees and dense scrub forms the north eastern boundary.

Image 1: Site location and approximate site boundary shown in red (Google Maps).

Context

2.3 Plans are being drawn up to re-develop the Application Site for housing. A masterplan for the Application Site has been produced, which will form the basis for a planning application in the near future. Three, two bedroom, residential mews style houses are proposed.

Purpose

2.4 The purpose of this assessment is to:

- Ascertain the general ecological value of the application site by:
  - Identifying and assessing the main habitats and plant communities;
  - Assessing the potential for protected species to use the application site;
  - Feeding into refinements of the masterplan; and
- To assess any ecological impacts of the proposed scheme and recommend appropriate mitigation and enhancements.

3.0 METHODOLOGY

Names and qualifications of surveyors

3.1 The survey was carried out by Lily Gilbert of ACD Environmental. She is an Ecologist for ACD Environmental. She has been involved in a wide range of ecological projects including extended Phase 1 surveys, Phase 2 surveys for protected species, and EPS licence applications. She is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and holds Natural England Class Licences for bats (level 1), great crested newts, dormice and barn owls.

3.2 This report was checked by Daniel Wood (MCIEEM) of ACD Environmental. Daniel is a Principal Ecologist for ACD Environmental and oversees all work carried out by the ACD Environmental team. Daniel has 10 years' experience working for commercial consultancies and specialises in European Protected Species legislation and mitigation. Daniel holds Natural England Class Licences for bats, great crested newts, hazel dormice and barn owls. Daniel has extensive development project experience, on sites of varying sizes from individual dwellings to strategic land allocations involving a wide range of issues. He has experience of projects from pre-acquisition, planning applications, Preliminary Ecological Appraisal (PEA), Ecological Impact Assessment (EcIA), Environmental Statements (ES) for EIA, and Appropriate Assessment (AA).

Background Data Search

3.3 Whilst field survey is invaluable and provides a "snap-shot" of the species and habitats present on a site, it is also important to research existing ecological knowledge of the site, such as biological records, and any relevant ecological information from the surrounding area.

3.4 The data search has been undertaken for a 2km radius around the Site for non-statutorily protected sites and protected species records and a 5km radius for statutorily protected sites.

3.5 The following organisations and individuals have been contacted and, where relevant, the information provided has been incorporated with acknowledgement within this report:

- Greenspace Information for Greater London.

3.6 The Multi-Agency Geographic Information for the Countryside website[1] was accessed for information on the location of statutory designated nature conservation sites within a 5km radius of the Site.

Habitat Survey

3.7 The Application Site was surveyed in April 2017 using the Joint Nature Conservation Committee (JNCC) Phase I habitat survey methodology[2]. This 'extended' Phase I technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail. The vegetation present was clearly visible and allowed an accurate assessment to be made.

Fauna

3.8 Incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species and other species of conservation concern, including UK Biodiversity Action Plan Priority species.

3.9 In addition to the extended Phase I survey, the following species surveys were undertaken:

- Bats – Preliminary Roost Assessment.

Preliminary Roost Assessment

3.10 A Preliminary Roost Assessment (PRA) was undertaken[3]. This is an external and internal inspection survey, the purpose of which is to assess the likelihood of bats being present and the need for further survey and/or mitigation.

3.11 A systematic search was made of the garages and the ground, especially below potential access points where present. Such features include windows sills, window

[1] http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx
[2] JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit.* JNCC, Peterborough.
[3] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

panes, walls, tiles, weather boarding, lead flashing, eaves, behind peeling paintwork or surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.

3.12 Once the external inspection had been completed, an internal inspection was also undertaken. Where present, particular attention was paid to the following:

- Droppings, urine staining and bat corpses;
- Timber beams (for free hanging bats);
- Timber joints (for crevice-dwelling bats);
- Clean swept floors (which may indicate evidence has been removed);
- Droppings beneath the ridge and hip beams of the roof and junctions between the two;
- Droppings and urine staining on and at the base of dividing walls, gable end walls and around chimney breasts;
- Droppings beneath timber work;
- Droppings and corpses beneath roof insulation;
- Corpses at the base of walls and near wall plates at the base of rafters;
- Corpses in uncovered water (header) tanks or other containers in the roof;
- Bat-fly (Nycteribiid) pupal cases;
- Scratch marks and characteristic staining from fur oil on timber and walls;
- Mortise joints and junctions between roof timbers and between timbers and walls;
- Clean gaps and sections of ridge beam and other timber and walls within the roof;
- Gaps between lintels above windows or doors;

- Light gaps in the roof indicating access points to the outside;
- Access to cavity or rubble-filled walls; and
- Cool areas suitable for torpor or hibernation.

3.13 The following equipment was used for the bat survey:

- Elevation and baseline drawings of the building or structure;
- Binoculars;
- Powerful torch to illuminate dark corners from the ground;
- Ladders;
- Collection pots and labels for corpses and droppings;
- Camera to record evidence and potential roosting sites; and
- Personal protective equipment (e.g. boots, gloves, helmet, mobile phone).

3.14 In addition to the building, the trees were also assessed for bat roosting potential. The following features and signs of bats were searched for on the trees:

- Cracks and splits;
- Cavities and hollows;
- Dense epicormic growth;
- Loose bark;
- Rot holes;
- Woodpecker holes;
- Scratches around entry points;
- Smoothing of surfaces around entry points;
- Dark staining from droppings and urine;

- Bat droppings in and around entrance;
- Audible squeaking during warm weather;
- Flies around entrance; and
- Smell of bats.

Habitats and Species Evaluation and Impact Assessment

3.15 The habitats and species evaluations are made with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) guidelines for Ecological Report Writing and Guidelines for Preliminary Ecological Appraisal (PEA). The Preliminary Ecological Appraisal (PEA) provides the results of the Extended Phase 1 Habitat Survey. The report is used to identify further ecological surveys necessary to inform an Ecological Impact Assessment (EcIA), to identify ecological constraints to a project, make recommendations for design changes, and to highlight opportunities for ecological enhancement. It can be used as a scoping report, but unless it can be determined that the project would have no significant ecological effects, no mitigation is required and no further surveys are necessary; should be superseded by an EcIA report.

3.16 Where possible, the habitats and species evaluations are made with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) guidelines for Ecological Impact Assessment.

3.17 These guidelines aim to give a degree of consistency in approach to evaluating the importance of the ecological features within the site and any effects or impacts a scheme will have upon them.

3.18 Firstly, the species or habitats must be valued and a commonly used framework involves assigning a level of geographical importance to ecological receptors. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's value.

3.19 Next, the impacts of the proposed scheme have to be predicted, taking into account different stages and activities within the development process. These impacts then have to be assessed for their significance, based upon the value of the species or

habitat in question. The assessment of impact significance is done before and after any proposed mitigation to give an overall indication of significance.

3.20 The value of specific ecological receptors (sites, habitats or species) is assigned according to their level of importance using the following terms:

- International value;
- UK value;
- National value (i.e. England/Northern Ireland/Scotland/Wales);
- Regional value;
- County value;
- District value (or Unitary Authority, City, or Borough);
- Local or Parish value; and
- Of value within the zone of influence or a larger defined area.

4.0 RESULTS AND EVALUATION

4.1 Set out below are the results of the background data searches and field surveys.

Context

4.2 The site lies in the west of Twickenham, approximately 50m south east of the River Crane. Residential housing lies directly to the south of the site and a school is adjacent to the north eastern boundary. Between the site and the River is an area of grassland and mature trees. The wider area comprises mainly of housing but the River corridor has numerous mature trees.

Data Search Results

Designated Sites

4.3 The nearest statutory designated nature conservation sites within 5km of the site are as follows:

- South west London waterbodies Special Protection Area (SPA), Ramsar site and Site of Special Scientific Interest (SSSI) which lies approximately 3.3km to the south west of the site and is designated for its large population of the nationally rare plant field southernwood *Artemisia campestris,* and its reservoirs which support internationally important populations of gadwall *Anas strepera* and shoveler *Anas clypeata* ducks;

- Syon Park SSSI which lies approximately 3.9km to the north east of the site and is designated for its reedland, damp woodland and semi-improved grassland habitats which notably support wintering birds and a rich invertebrate fauna including the German hairy snail *Pseudotrichia rubiginosa*;

- Bushy Park and Home Park SSSI which lies approximately 1.9km to the south of the site and is designated for its acid grassland, veteran trees and important dead and decaying wood associated invertebrate species assemblage;

- Kempton Park Reservoirs SSSI which lies approximately 3.3km to the south west of the site and is designated for its two reservoirs which provide important habitats for breeding, migrating, wintering and resident birds; foraging bats;

water vole *Arvicola amphibius*; grass snake *Natrix natrix* and palmate *Lissotriton helveticus* and smooth newts *Lissotriton vulgaris*;

- Richmond Park National Nature Reserve (NNR), Special Area of Conservation (SAC) and SSSI which lies approximately 3.5km to the east of the site and is designated for its dry acid grassland, ancient trees, ponds, broadleaved woodland and deadwood beetle species interest;

- Isleworth Ait Local Nature Reserve (LNR) which lies approximately 3.1km to the north east of the site and is designated for its mixed woodland which supports birds, rare beetles and rare snails;

- Ham Lands LNR which lies approximately 1.5km to the east of the site and is designated for its grassland, scrub and variety of vegetation which attracts bird and butterfly species;

- Ham Common, Richmond LNR which lies approximately 3.4km to the east of the site and is designated for its birch and oak woodland and acid grassland habitats;

- Oak Avenue Hampton LNR which lies approximately 3km to the south west of the site and is designated for its improved parkland, native hedge and wildflower meadow;

- Kempton Nature Reserves LNR which lies approximately 3.3km to the south west of the site and is designated for its reedland habitat which supports reed-breeding birds, dragon fly species and wading birds;

- Crane Park Island LNR which lies approximately 1.7km to the west of the site and is designated for its grassland, wet woodland, reedbed, pond, kingfishers *Alcedo atthis* and water voles;

- Pevensey Road LNR which lies approximately 2.2km to the west of the site and is designated for its meadow scrubland, woodland and wetland habitats; and

- Hounslow Heath LNR which lies approximately 2km to the north west of the

site and is designated for its heathland, acid grassland, scrub, woodland, marsh, heathland flora, reptiles, birds and invertebrates.

4.4 LNRs are notified under Section 21 of the National Parks and Access to the Countryside Act 1949 by local authorities. They are not necessarily of great ecological value, and are intended for public appreciation and enjoyment of wildlife. The LNR designation does not afford special protection, although LNRs are protected under legislation and planning policy.

4.5 SPA, SAC and RAMSAR are of **International Value,** SSSIs and National Nature Reserves are of **National value** and LNRs are of **Local Value.**

4.6 The nearest non-statutory designated nature conservation sites within 2km of the site are as follows:

- Fulwell and Twickenham Golf Courses Site of Importance for Nature Conservation (SINC), which lies approximately 750m to the south west of the site and is designated for its acid grassland, heathland, pond/lake, scrub, secondary woodland and wet ditches;

- Twickenham Cemetery SINC, which lies approximately 750m to the west of the site and is designated for its acid grassland and scattered trees; and

- Crane Corridor SINC, which lies approximately 250m to the north west of the site and is designated for its wetland habitats including ponds, lakes, wet woodland and wet grassland.

4.7 SINCs are of **County value**.

Protected Species Records

4.8 The relevant protected species records are incorporated into the Fauna section, below, with due acknowledgement.

Survey Results

Habitats

4.9 The site supports the following habitats:

- Buildings and Hardstanding (*J3.6*);
- Amenity Grassland (*J1.2*);
- Hedgerows and Trees (*J2.3*); and
- Tall Ruderal (*C3.1*).

4.10 For ease of reference, habitat types have been described alphabetically, below.

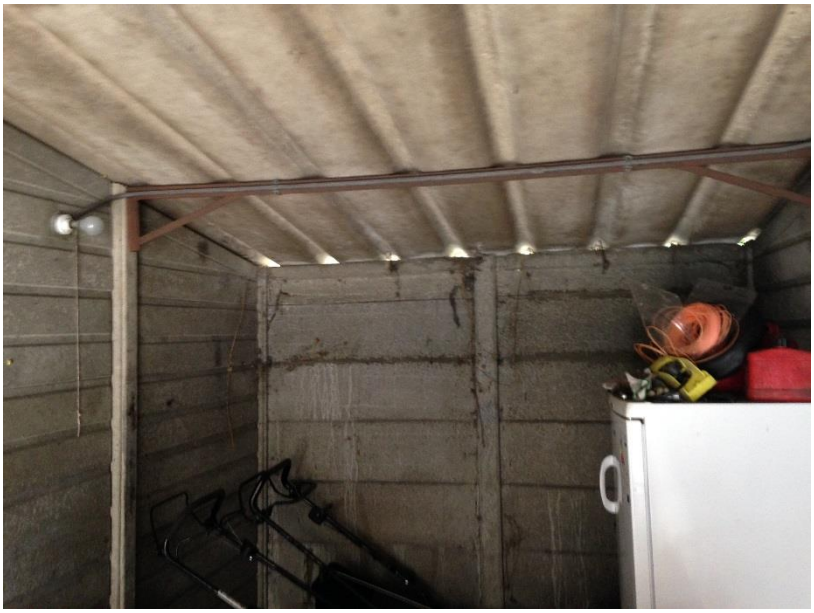
Buildings (J3.6) and Hardstanding

4.11 There is a row of ten garages within the site. The garages are of concrete block construction with corrugated sheet metal roofs which overlap in places. The roofs are pitched but there are no enclosed loft spaces.

4.12 There is hardstanding to the south east of the garages, which is used as a car park and as an access road to the rear of the adjacent flats.

Photograph 1: View of garages, south east elevation.

Photograph 2: View of garage roof.



Photograph 3: View of garage interior.

Photograph 4: View of car park.

4.13 The garages and hardstanding are of negligible ecological value.

Amenity Grassland (J1.2)

4.14 There is a small area of amenity grassland along the south western boundary fence line. The grassland is regularly mown and the sward is species poor comprising mainly of Yorkshire fog *Holcus lanatus*, cocks foot *Dactylis glomerata*, daisy *Bellis perennis* and dandelion *Taraxacum officinale*.

Photograph 5: View of amenity grassland.

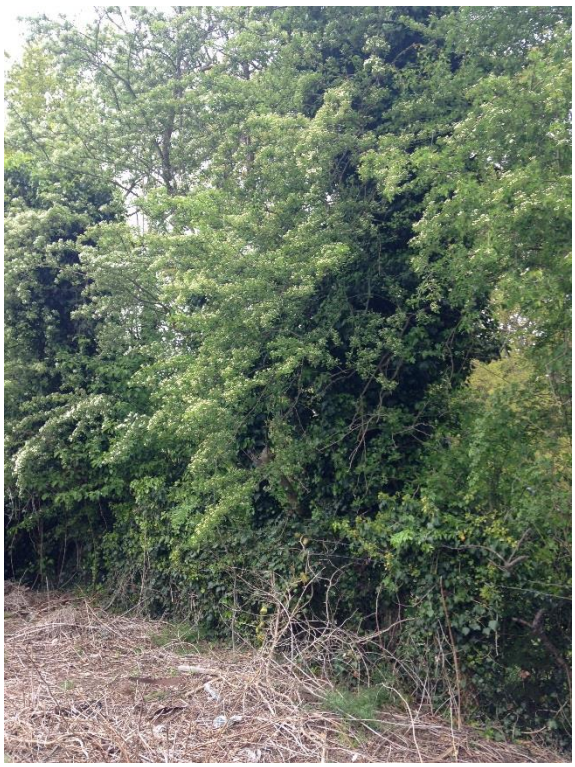
4.15 The amenity grassland is of negligible ecological value.

Hedgerows and Trees (J2.3)

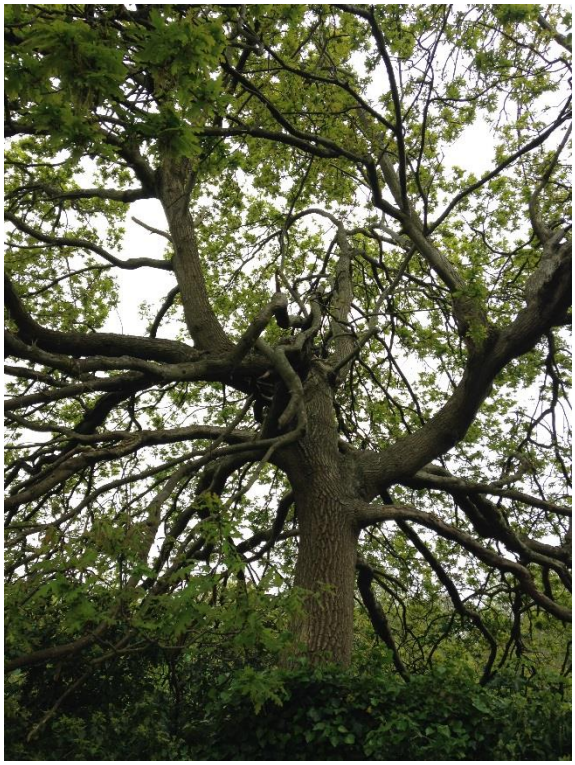
4.16 The north western site boundary, which lies behind the row of garages comprises an outgrown hedgerow with mature trees and shrubs. Species present include hawthorn *Crataegus monogyna*, oak *Quercus robur*, ash *Fraxinus excelsior*, elder *Sambucus nigra*, cherry *Prunus avium* and hazel *Corylus avellana*. These trees overhang the area of bare ground behind the garages.

4.17 There are a number of mature trees along the north eastern site boundary. Species present include oak, ash, mature hawthorn bushes and a Lawson cypress

Chamaecyparis lawsoniana tree in the south east corner of the site.



Photograph 6: View of outgrown hedgerow along north western boundary.



Photograph 7: View of mature oak tree in north eastern boundary.

Photograph 8: View of trees along north eastern boundary.

Tall Ruderal (C3.1)

4.18 There is an area of bare ground to the north west of the garages, which has been overgrown in places with ruderal species including common nettle *Urtica dioica* borage *Borago officinalis*, cleavers *Galium aparine* and spear thistle *Cirsium vulgare*. There is also a large compost heap in the northern corner of the site, which is overgrown with common nettle.

4.19 There is an abundance of dead bramble stems in the area behind and to the side of the garages, indicating that this has been overgrown with scrub in the past but has recently been cleared.

Photograph 9: View of bare ground and ruderal species behind garages.

Photograph 10: View of bare ground to the side of garages.

Photograph 11: View of compost heap behind garages.

4.20 The areas of ruderal species are of value within the zone of influence.

Fauna

4.21 For ease of reference, descriptions of the fauna have been described alphabetically, below.

Amphibians

4.22 There are records of common toad *Bufo Bufo*, common frog *Rana temporaria* and palmate newt *Lissotriton helveticus* within 2km of the Application Site. The nearest record of common toad is 667m to the north of the Application Site, over the River Crane. The nearest record of a palmate newt is 1269m to the north of the Application Site within a pond over the River. A common frog has been recorded within the area of grassland just to the north of the Application Site within 12m.

4.23 There are no records of great crested newts within 2km of the Application Site.

4.24 There are no ponds within the Application Site or within 500m of the site.

4.25 There is very limited suitable habitat on site for terrestrial amphibians. There is low potential for small numbers of common amphibian species to be present within the

compost heap in the northern corner of the site, however as there are no ponds nearby, this is considered unlikely.

4.26 The habitats on site are assessed as being of negligible value for amphibians.

Badgers

4.27 There are no records of badger within 2km of the site.

4.28 No evidence of badgers such as foraging snuffle holes, latrines or mammal paths were recorded within the site. There are no mammal holes within the site.

4.29 The habitats on site are considered to be of low value for badgers. The amenity grassland provides little value for foraging badgers and the boundary habitats are narrow and subject to frequent disturbance so it is unlikely that badgers would build a sett here.

4.30 The site is of negligible value for badgers.

Bats

4.31 There are records of common pipistrelle *Pipistrellus pipistrellus*, Daubenton's *Myotis daubentonii,* natterer's *Myotis nattereri,* noctule *Nyctalus noctula,* Leisler's *Nyctalus leisleri,* soprano pipistrelle *Pipistrellus pygmaeus,* Nathusius pipistrelle *Pipistrellus nathusii* and brown long eared *Plecotus auritus* bats within 2km of the Application Site.

4.32 The nearest record is of an unidentified bat, 12m to the north of the Application Site. The records of Nathusius, Daubenton's and Leisler's bats are all over 400m from the Application Site to the north in unconnected habitat.

4.33 There is one record of a bat roost within 2km of the Application Site. An EPS licence has been granted for the closure of a non-maternity roost of common and soprano pipistrelle bats within a building 990m to the north east of the site.

4.34 No evidence of roosting bats was found within the garages. All of the garages are in use, which decreases the potential for bat roosts to be present. There are gaps between overlapping sheets of corrugated metal on the garage roofs. These features have low to negligible potential for bats as they are likely to get very hot

during the summer months and the temperature is likely to fluctuate considerably during the winter, making them largely unsuitable. Only one garage was accessible to inspect internally, however they are all the same layout with no enclosed spaces suitable for bats. Internally, the garages are draughty with no features suitable for bats to roost behind.

4.35 The majority of the trees within the Application Site have been assessed as having negligible potential for roosting bats. The mature oak tree within the north eastern boundary has a split branch on the south western elevation. The split does not currently lead into a cavity suitable for bats, however, over time a cavity may develop.

Photograph 12: View of split branch on mature oak tree.

4.36 The site is likely to be used by low numbers of foraging and commuting bats. The boundary trees and outgrown hedgerow are likely to be used as dark corridors for bats to commute along. These corridors provide good connectivity between the River and the surrounding built up area. Much of the site is likely to be well lit by the surrounding houses, hence only light tolerant species of bats are likely to pass though the site. There is good quality bat foraging habitat along the River Crane to the north west of the Application Site.

4.37 The habitats on site are of value within the zone of influence for foraging and

commuting bats.

Birds

4.38 There are records of lapwing *Vanellus vanellus,* mistle thrush *Turdus viscivorus,* redwing *Turdus iliacus,* starling *Sturnus vulgaris,* tawny owl *Strix aluco,* woodcock *Scolopax rusticola,* house sparrow *Passer domesticus,* nightingale *Luscinia megarhynchos,* lesser black backed gull *Larus fuscus* and swallow *Hirundo rustica* within 2km of the site.

4.39 There are records of many other bird species within 2km of the site, however the majority of these species are associated with wetland habitats, and as such have been deemed not relevant to the site and are therefore not included in this results section.

4.40 No evidence of nesting birds was recorded within the garages. There is suitability for nesting and feeding birds within the boundary trees and outgrown hedgerow. Of the species listed above, there is low potential for house sparrow, starling and swallow within the habitats on site. Similar habitats are relatively common within gardens and areas of open space in the local area, therefore the bird interest on site is of value within the zone of influence.

Dormouse

4.41 There are no records of dormice within 2km of the site.

4.42 There is no habitat on site suitable to support dormice and no connectivity between the site and suitable dormouse habitat.

4.43 The site is of negligible value for dormice and they will not be considered further in this report.

Reptiles

4.44 There are records of grass snake *Natrix natrix,* common lizard *Zootoca vivipara* and slow worm *Anguis fragilis* within 2km of the Application Site. All of the records are of small populations over 1.5km to the north and north west of the Application Site.

4.45 There is limited habitat within the Application Site that is suitable for reptiles. The

area of ruderal species and the compost heap in the north of the site has potential to support small numbers of reptiles. Slow worms in particular are frequently present within compost heaps and grass snake often use them to lay their eggs. The compost heap may also be used by reptiles during the winter. Given the small size of the site, it is considered likely that if reptiles are present within the habitats surrounding the site, small numbers may on occasion enter the site, but the site would clearly not support a reptile population in its own right.

4.46 There is suitable habitat for reptiles immediately to the north and north west of the site and there is good connectivity between these habitats and the River corridor.

4.47 The habitats on site are of value within the zone of influence for reptiles.

Water Voles

4.48 There are numerous records of water vole *Arvicola amphibious* within 440m of the Application Site.

4.49 The Application Site is within 50m of the River Crane and the intervening habitat comprises mainly of open grassland. However, there is no suitable habitat for water voles on site and the site is subject to significant human disturbance. There are no water courses to the south of the site that might lead to water voles moving through the site.

4.50 The site is of negligible value for water voles and they will not be considered further in this report.

Other Wildlife

4.51 There are records of stag beetle *Lucanus cervus* and hedgehog *Erinaceus europaeus* within 1km of the site. There is low potential for both species within the site in the boundary habitats.

5.0 LEGISLATION AND PLANNING POLICY

5.1 This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

Legislation

5.2 Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- The Countryside and Rights of Way Act 2000;
- The Hedgerows Regulations 1997;
- The Protection of Badgers Act 1992; and
- The Natural Environment and Rural Communities Act 2006.

5.3 Where relevant, the assessment takes account of the legislative protection afforded to specific habitats and species.

Wildlife Legislation

Non-European Protected Species

5.4 Widespread amphibians (including smooth newts, palmate newts, common toad and common frogs) are all protected under the Wildlife and Countryside (WCA) Act 1981 (as amended). It is therefore an offence to trade or sell specimens.

5.5 Badgers and their setts are protected under the Protection of the Badgers Act 1992[4]. Activities that can harm badgers include destroying a sett, causing noise, additional lighting or vibration and pile driving, quarry blasting, lighting fires or using chemicals. It is an offence to:

[4] http://www.legislation.gov.uk/ukpga/1992/51/pdfs/ukpga_19920051_en.pdf

- Wilfully capture, kill or injure badgers;
- Damage, destroy or block access to setts (even accidentally);
- Disturb badgers in their setts;
- Cruelly ill-treat a badger;
- Deliberately introduce a dog into a sett;
- Bait badgers;
- Dig for badgers;
- Possess, sell to offer for sale a live badger;
- Possess or control a dead badger or parts of the a badger (if unlawfully obtained); or
- Mark or attach a device to a badger.

5.6 All wild birds[5] and their nests are protected under the WCA as amended. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;

[5] https://www.gov.uk/wild-birds-protection-surveys-and-licences

- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations (see *Schedules*); or
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

5.7 Barn Owls[6] are a Schedule 1 bird under the Wildlife and Countryside Act, 1981 (as amended) and it is therefore an offence to intentionally:

- Kill, injure or take any wild bird;
- Take damage or destroy the nest of any wild bird whilst that nest is in use or being built;
- Take or destroy and egg of any wild bird; or
- to intentionally or recklessly disturb barn owls at an active nest site with eggs or young or before eggs are laid, or to disturb the dependant young.

5.8 Water voles[7] are protected under schedule 5 of the WCA, as amended and it is therefore an offence to:

- intentionally capture, kill or injure water voles;
- damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care);
- disturb them in a place of shelter or protection (on purpose or by not taking enough care); or
- possess, sell, control or transport live or dead water voles or parts of

[6] http://www.barnowltrust.org.uk/infopage.html?Id=301
[7] https://www.gov.uk/water-voles-protection-surveys-and-licences

them (not water voles bred in captivity).

5.9 Widespread reptiles[8] (including; adder, common lizards, grass snakes and slow worms) are protected under the WCA as amended and it is therefore an offence to deliberately kill, injure, sell or trade widespread reptiles.

European Protected Species

5.10 European Protected Species are protected The Conservation (Natural Habitats, &c.) Regulations 1994, under regulation 39[9], as well as the WCA. These species include great crested newts, ***all*** bat species, dormice and otter.

5.11 This level of protection for these species (at all stages of their life cycle) makes it an offence to do the following:

- deliberately to capture or kill a wild animal of a European protected species;
- deliberately to disturb any such animal;
- deliberately to take or destroy the eggs of such an animal;
- to damage or destroy a breeding site or resting place of such an animal; or
- to keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from, such an animal.

Planning Policy

National Planning Policy Framework

5.12 The National Planning Policy Framework[10] sets out planning policies on protection of biodiversity and geological conservation through the planning system for local authorities in England. The NPPF outlines the role of the decision maker in

[8] http://naturenet.net/law/herps.html
[9] http://www.legislation.gov.uk/uksi/1994/2716/regulation/39/made
[10] Department for Communities & Local Government (2012). *National Planning Policy Framework*. [Online]. Available at <http://www.communities.gov.uk/publications/planningandbuilding/nppf> [Accessed 19th June 2012].

considering the requirements of wildlife legislation to protect wildlife.

5.13 The Framework states that the planning system should contribute to and enhance the natural and local environment, by measures including the following:

- Minimising impacts on biodiversity and providing net gains in biodiversity where possible;
- Contributing to the Government's commitment to halt the overall decline in biodiversity;
- Establishing coherent ecological networks that are more resilient to current and future pressures; and
- Recognising the wider benefits of ecosystem services.

5.14 The Framework states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying principles including the following:

- If significant harm from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated for, or, as a last resort, compensated for, then planning permission should be refused.
- Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on that designated site (either individually or in combination with other developments) should not normally be permitted. Where adverse effects on the site's notified special interest features is likely, an exception should only be made where the benefits of the development clearly outweigh both the impacts that it is likely to have on the features of the site that make of special scientific interest and any broader impacts on the national networks of Sites of Special Scientific Interest.
- Opportunities to incorporate biodiversity in and around developments should be encouraged.

5.15 The Government Circular 06/2005[11] accompanies the National Planning Policy Framework and sets out the application of the law in relation to planning and nature conservation in England.

Local Planning Policy

Richmond upon Thames Local Plan

5.16 The Richmond upon Thames Local Plan is currently under review[12]. Relevant policies relating to ecology and nature conservation are summarised as follows:

- Policy CP4 Biodiversity- relates to protecting priority species and habitats, ensuring sites of European and national importance are clearly identified, and identifying, protecting and enhancing corridors of movement, such as green corridors that are of strategic importance.

  There is scope for a new policy to be created in relation to green infrastructure which would highlight the multi-functional network of open spaces, their value for biodiversity and reflecting the green corridors that are of strategic importance.

- Policy DM OS 5 Biodiversity and New Development – relates to minimising impacts on biodiversity and providing net gains in biodiversity where possible.

[11] Office of the Deputy Prime Minister (2005). *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. [Online]. Available at: < http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf> Accessed: 19th June 2012.

[12] http://www.richmond.gov.uk/appendix_1_detailed_review_of_existing_policies.pdf

6.0 DISCUSSION AND RECOMMENDATIONS

Designated Sites

6.1 The Application Site falls within the Site of Special Scientific Interest Impact Risk Zones (IRZ) for Bushy Park and Home Park SSSI. However, given the small scale of the development and its distance from the SSSI, impacts through recreational activities are considered unlikely and mitigation measures are unlikely to be required.

Habitats

Buildings and Hardstanding

6.2 The garage block will be demolished and replaced with a row of three mews style houses, which will occupy a similar footprint.

6.3 The overall residual impacts are considered to be neutral.

Amenity Grassland

6.4 The small area of amenity grassland is likely to be lost as a result of the construction works within the site.

6.5 Areas of grassland will be included within the landscaping plans for the proposed development.

6.6 Overall residual impacts are considered to be neutral.

Hedgerows and Trees

6.7 The boundary trees and outgrown hedgerow are being retained and will be protected from the development during the design stage and construction with suitable root protections zones. Heras fencing will be used to keep construction work away from the trees.

6.8 Planting plans will include new trees, including locally native species that have good ecological value.

6.9 Overall residual impacts are considered to be positive.

Tall Ruderal

6.10 The small areas of ruderal species are likely to be lost under the current proposals. These areas comprise of species that are common, widespread and of low value for wildlife.

6.11 Planting plans will include shrub and tree planting of value for birds and invertebrates, including guelder rose *Viburnum opulus*, lavender *Lavandula sp*., rosemary *Rosmarinus officinalis* and honeysuckle *Lonicera caprifolium*.

6.12 Overall residual impacts are considered to be positive.

Fauna

Amphibians

6.13 There is very low potential to impact small numbers of common amphibian species that might be present within the compost heap and surrounding ruderal vegetation. Clearance should proceed slowly using a phased approach to give amphibians time to move into surrounding habitats.

6.14 Overall residual impacts are considered to be neutral.

Badgers

6.15 There is no evidence that badgers are using the site and it is considered very unlikely that they would enter the site. As a precaution, gaps will be left under any proposed fence lines to allow badgers and other mammals to pass through the site.

6.16 Good practice activities should be adopted during the construction phase. These include:

- Lighting required during construction work must be turned off overnight so as not to disturb nocturnal badgers foraging;
- Trenches will be covered at the end of the working day;
- Any temporary pipes will be capped to prevent badgers gaining access during the night; and

- If badgers or any signs of sett excavation are encountered on site at any time during demolition or construction, the advice of an ecologist should be sought.

6.17 Overall residual impacts are considered to be neutral.

Bats

6.18 No evidence of bats has been found and the garages were assessed as having low to negligible potential for bats. As a precaution, we recommend that the garage roofs are dismantled by hand under supervision by an ecologist. In the very unlikely situation that a bat is found, works should stop immediately, the bat should be moved into a bat box and the box should be erected on a boundary tree. A bat licence would then be required before the rest of the garages can be taken down.

6.19 The boundary trees and outgrown hedgerow should be subject to no increase in light levels to retain a relatively dark corridor for bats to forage and commute along. Artificial lighting should be minimised within the scheme and new lighting should have hoods and cowls to minimise light spill either into the sky or onto trees.

6.20 An isolux plan should be produced with input from an ecologist to ensure the trees and hedgerow remain suitably dark.

6.21 If suitable protection and mitigation measures are put in place, the overall residual impacts are likely to be neutral.

Birds

6.22 A small assemblage of common and widespread birds are likely to use the site all year round for nesting and feeding.

6.23 If small areas of vegetation need to be cleared, this should be undertaken outside the bird nesting season (generally taken to be March to August inclusive). If vegetation removal must be undertaken during the bird nesting, the area must be checked in advance, by an ecologist, for the presence of nesting birds. If there is no evidence of nesting birds, the clearance work must be completed within 48 hours of inspection. If any active nests are identified, vegetation clearance must cease and an appropriate buffer zone must remain until it has been confirmed that the young

have fledged and the nest is no longer in use.

6.24 To enhance the site for birds, landscape planting within the site should provide suitable food sources (fruits and berries) for birds.

6.25 The overall residual impacts are likely to be positive.

Reptiles

6.26 The compost heap and surrounding ruderal vegetation will be lost. Clearance of the compost heap should be undertaken when temperatures are above 10^{o}c to avoid disturbing hibernating reptiles. If grass snake eggs are found during clearance, any removed material should be put back and clearance should be put on hold until the Autumn, when hatchlings emerge. An ecologist should be present on site to oversee clearance of the compost heap[13].

6.27 If at any stage a reptile is found, it should be given time to move into the surrounding suitable habitat.

6.28 Providing the compost heap is cleared sensitively, the overall residual impacts are likely to be neutral.

Other Wildlife

6.29 As the boundary habitats are being retained and protected from the development, impacts on stag beetle and hedgehogs should be avoided. Any dead wood within the boundary habitats should be left in-situ as a valuable resource for wildlife.

6.30 Hedgehog friendly fence gravel boards are recommended to be used in garden fences to allow hedgehogs to move between gardens. Dropped curbs should be used throughout the development to ensure connectivity is retained for hedgehogs throughout the site. We encourage that piles of brush and vegetation should be left to provide suitable habitat for sheltering and hibernating hedgehogs.

[13] Reptile Mitigation Guidelines. Natural England Technical Information Note TIN102 (2011).

Enhancements

6.31 The National Planning Policy Framework encourages development to provide net gains in biodiversity where possible.

6.32 It is recommended that the following enhancements are provided within the site:

- Five 1B Schwegler nest boxes should be installed on trees within the wider site. Nest boxes should be positioned so that they face away from prevailing wind (usually south westerly) and in proximity to trees or a hedgerow;
- Two 2F Schwegler bat boxes should be installed on trees within the wider site. The boxes are best positioned at a height of between 3 to 6 metres. Bat boxes should ideally be sited in open sunny positions and in groups of 3 to 5 boxes facing different directions to provide a variety of micro-habitats;
- It is recommended that two HH7 Hogilo Hedgehog boxes are provided along the north western boundary. The box should be located within cover, close to vegetation and out of the prevailing wind;
- To improve the foraging potential of the site for bats the landscape planting scheme should utilise night-flowering blossoms, highly fragrant species and pale coloured species that will enhance the site for flying insects; and
- It is recommended that garden habitats should include features to allow the movement of wildlife between gardens by either raising close board fencing above the ground or by cutting small holes cut in the fencing gravel boards allowing continued access for small wildlife such as hedgehogs.

7.0 CONCLUSIONS

7.1 The Application Site comprises a row of garages, hardstanding, amenity grassland, an area of bare ground with ruderal species and a compost heap. An outgrown hedgerow and trees form the sites boundaries.

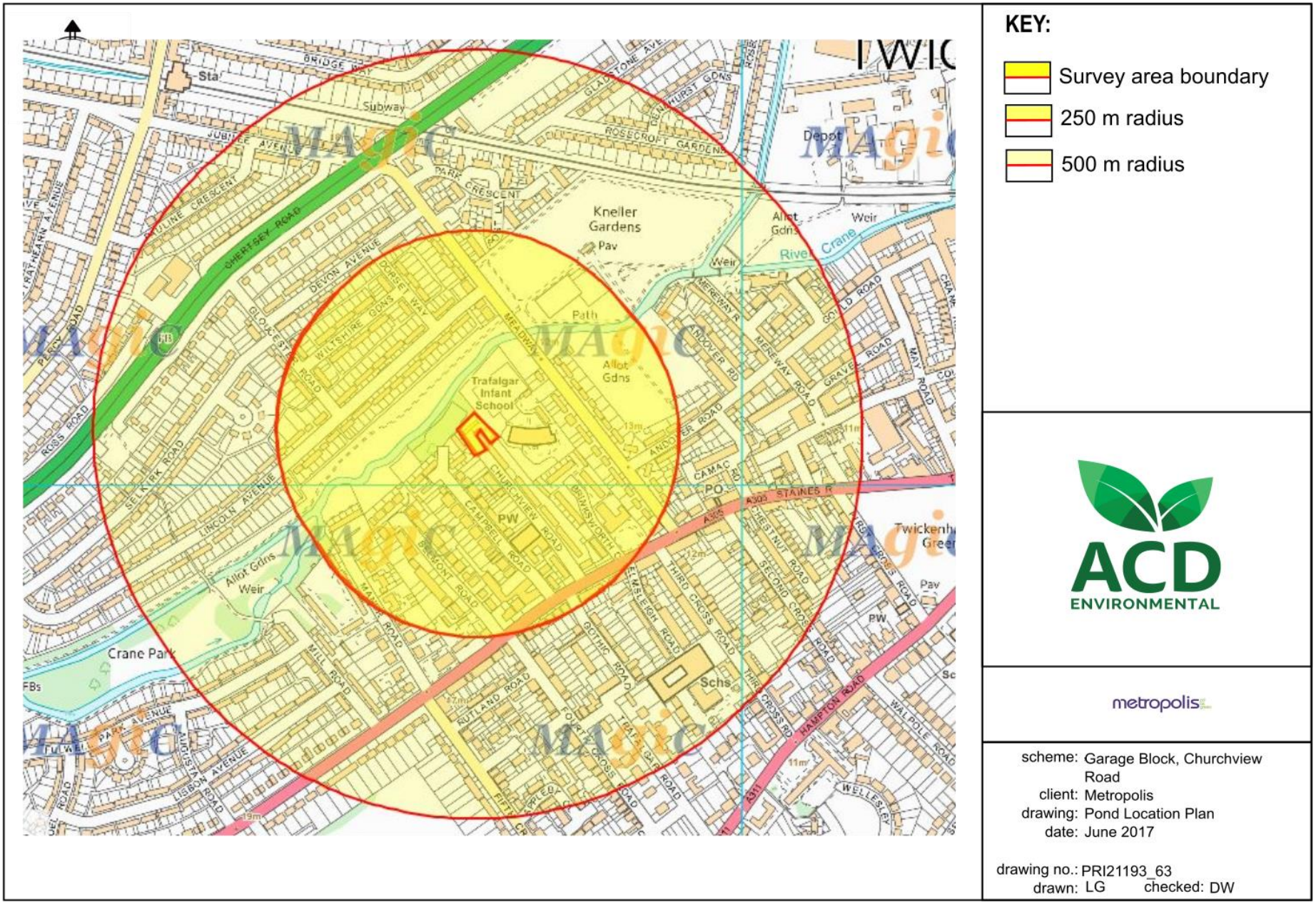
7.2 The boundary trees and outgrown hedgerow are being retained and protected from the proposed development with suitable root protection areas.

7.3 Precautionary measures have been outlined for the demolition of the garages and clearance of the compost heap for the protection of roosting bats and reptiles.

7.4 Measures to mitigate for impacts have been set out along with recommendations for enhancement of the site's ecological value.

7.5 Implementing the recommendations will ensure that there are no significant impacts upon protected species and that the proposals will be in conformity with relevant legislation and policy.

APPENDIX 1 POND LOCATION PLAN



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