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Preliminary Ecological Appraisal and Roost Assessment

Survey site:

2-4 Ennerdale Road, Richmond, Richmond upon Thames, London, London, TW9 3PG

Client:

The Park Property Group (Kew) Ltd

Survey date:

21 May 2024

Project:

This report is prepared to inform a planning application with the London Borough of Richmond upon Thames. The proposal is described as:

Conversion and division of two main Victorian buildings into semis, and demolition of extensions and erection of new housing.

PEA survey methodology and legislation can be found in the Arbtech Supplement: **PEA Methodology and Legislation - 2024.**

PRA survey methodology and legislation can be found in the Arbtech Supplement: **PRA Methodology and Legislation - 2024.**

The site survey was undertaken by Jamie-Lee Anderson, Consultant Ecologist (Accredited Agent on Natural England Bat Licence Number: 2019-41480-CLS-CLS)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (mph)	Rain
21/05/2024	12.3	86	100	8.1	None

Ecological Survey Factor **Conclusion, Impact or Recommendations**	**Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.**
Habitats and plants (see Habitat Map in Appendix 1, PRA Plan in Appendix 2, Location Plan in Appendix 3, Proposal Plan in Appendix 4 and Photos in Appendix 5). **Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).**	
Summary of Survey Findings **(***UKHabs codes used)*	**Site Context** The survey site is centred on National Grid Reference TQ 18953 76667 and has an area of approximately 0.17ha. The site is located within North Sheen on the outskirts of London city centre within the London Borough of Richmond upon Thames. The site comprises five intra-connected buildings, surrounded by a vegetated garden within a residential area. Aerial imagery shows the local landscape to be predominantly urban, comprised of multiple residential properties and gardens and few scattered trees. A large parkland is located 277m west of the site containing a multitude of habitat types including large swathes of woodland, lakes, ponds and large areas of open grassland. Water bodies can be found nearby, including a large pond and lake within 500m north-west of site. Such features likely enhance the area for a variety of species, including bats, amphibians and reptiles. The site contains no notable habitats within the site boundary. **On-site habitat descriptions**

	• Buildings (u1b5) • Developed land; sealed surface (u1b6) • Vegetated garden (828) **Local notable habitats** Large areas of good quality Deciduous woodland, a priority habitat, are present within the adjacent parkland (200m west), which is in close proximity to the site, and could be of value to local wildlife. The trees on-site have no functional connectivity to these large swathes of woodland. Further priority habitat includes a single Traditional Orchard, a priority habitat, which is located 451m to the south-east.
Foreseen Impacts	**On-site habitats** The proposed development will result in the loss of developed land; sealed surface and vegetated garden habitat types. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats. **Notable habitats** No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to LMDW (0.2km west), indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction.
Recommendations	**On-site habitats** Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012). A biodiversity net gain (BNG) report may be required for the proposal, once the proposed development is produced, the amount of habitat affected can be calculated. **Notable habitats** Best practice measures to minimise the possibility of pollution affecting the nearby ancient woodland must be implemented during construction. A Construction Environment Management Plan (CEMP) may be required for this.
Locality and Designated Sites	
Summary of Survey Findings	**On-site designations** The site is not subject to any designation. **Statutory designated sites (within 2km)** There are no known statutory sites nearby. No national network sites (SAC, SPA, Ramsar) are located within 2.5km. The site lies within the impact risk zone for Syon and Richmond Park two Sites of Special Scientific Interest (SSSI's) and proposed development type is not listed as a possible high risk for this designation. **Non-statutory designated sites**

	The presence of non-statutory designated sites within 2km of the site cannot be established without data from greenspace Information for Greater London CIC.
Foreseen Impacts	**On-site designations** No impacts foreseen. **Statutory and non-statutory designated sites** No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.
Recommendations	**On-site designations** None required. **Statutory and non-statutory designated sites** Best practice measures to minimise the possibility of pollution affecting the nearby lowland mixed deciduous woodland (200m west) must be implemented during construction. A Construction Environment Management Plan (CEMP) may be required for this.
Invasive / Non-native species	
Summary of Survey Findings	No problematic invasive and non-native species recorded on site.
Foreseen Impacts	N/A
Recommendations	No further surveys but remain vigilant.
Invertebrates	
Summary of Survey Findings	The habitats present on-site, including vegetated garden, ornamental shrubs and hedgerow, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.
Foreseen Impacts	None foreseen.
Recommendations	No further surveys. **Suggested biodiversity enhancements** The incorporation of bee bricks (e.g. Ibstock BeeHabitat or similar alternative brand) into the fabric of the new buildings would provide sheltering opportunities for pollinators. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation. The site could be further enhanced via the provision of native wildflowers or wildflower turf, which would provide foraging opportunities for invertebrates.
Bats	

Summary of Survey Findings

EPSL data

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There are four EPSLs within a 2km radius of site as detailed below:

EPSL reference	Bat species affected	Distance from site	Impacts allowed by licence
2015-9916-EPS-MIT	Soprano pipistrelle	~740m west	Destruction of a resting place.
2016-27025-EPS-MIT	Common pipistrelle, serotine and soprano pipistrelle	~820m southwest	Damage of a resting place.
2019-42630-EPS-MIT	Soprano pipistrelle	~885m southeast	Impact on a breeding site, destruction of a breeding site and destruction of a resting place.
2017-27991-EPS-MIT	Brown long-eared bat, common pipistrelle and soprano pipistrelle	~1580m northwest	Impact on a breeding site, damage of a breeding site, and damage of a resting place.

Foraging and commuting habitat

Habitats recorded on site are assessed to provide limited foraging and commuting opportunities for bats in the form of small patches of vegetated garden, and species poor hedgerow. The wider landscape offers opportunities for bats in the form of deciduous woodland, for foraging, commuting, and roosting.

Roosting habitat

Buildings and trees to be impacted by the proposed development are assessed for their suitability to support roosting bats below. No evidence of roosting bats was identified on or within any of the buildings on-site. See Appendix 5 for photos and descriptions in greater detail. All buildings are currently connected internally.

Building B1

B1 is an old Victorian two-storey, brick-built building. B1 has a pitched and gabled roof, clad in clay tiles. The brickwork around the building appears in excellent condition with no gaps or cracks in which bats can roost. Soffits and fascias, as well as window and door frames are of timber construction. There are no loft spaces within B1. The loft spaces have vaulted ceilings and have been converted to habitable living space.

B1 – Southeast elevation.

Building B2
B2 is an old Victorian two-storey, brick-built and rendered building. B2 has a pitched and gabled roof, clad in clay tiles. The brickwork around the building appears in excellent condition with no gaps or cracks in which bats can roost. Soffits and fascias, as well as window and door frames are of timber construction. There are no loft spaces within B1. The loft spaces have vaulted ceilings and have been converted to habitable living space.

B2 – South elevation.

Building B3
B3 is a two-storey, brick-built building modern extension. B3 has a pitched and gabled roof with dormer windows, clad in clay tiles. The brickwork around the building appears in excellent condition with no gaps or cracks in which bats can roost. Soffits and fascias, as well as window and door frames are of timber construction. There are no loft spaces within B3. The loft spaces have vaulted ceilings and have been converted to habitable living space. B3 is connected to B2 by a single storey enclosed walkway (with no loft space or suitable roosting features).

B3 – East elevation.

Building B4

B4 is a two-storey, brick-built building modern extension. B4 has a pitched and gabled roof with dormer windows, clad in clay tiles. The brickwork around the building appears in excellent condition with no gaps or cracks in which bats can roost. Soffits and fascias, as well as window and door frames are of timber construction. There are no loft spaces within B4. The loft spaces have vaulted ceilings and have been converted to habitable living space. B4 is connected to B1 internally.

B4 – Southwest elevation.

Building B5

B5 is a single storey, brick-built building modern extension. B5 has a pitched and gabled roof, clad in clay tiles. The brickwork around the building appears in excellent condition with no gaps or cracks in which bats can roost. Soffits and fascias, as well as window and door frames are of timber construction. There are no loft spaces within B5. The loft spaces have vaulted ceilings and have been converted to habitable living space. B5 is connected to B1 internally.

	 B5 – South elevation. No bats or evidence of bat occupation (e.g. droppings, oil staining, etc.) was identified on or within any of the buildings internally or externally. *B1 Suitability Assessment* Given the limited number of features identified on the property and the sub-optimal bat habitat on site, it is assessed that B1 provides **low** habitat value for roosting bats.
Foreseen Impacts	**Roosting habitat [Buildings]** The proposed development will result in the demolition and renovation of these buildings. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats. **Foraging and commuting habitat** The proposed development will result in the loss of small areas of vegetated garden and buildings, but given their low value and the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats. **Artificial lighting** The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.
Recommendations	**Roosting habitat [Buildings]**

	One bat emergence survey is required on **B1** during the active bat season (May – September) to confirm presence/likely-absence of bats roosting in or on the building. These survey visits should be completed during the optimal survey period mid-May to August inclusive. The survey visits should be at least three weeks apart. Sub-optimal: early May and September. Would require greater justification of timing e.g., weather conditions, known local bat activity. **Three surveyors** are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. An infrared camera should also be employed as part of the survey to see where any specific roost locations are located. Lighting mitigation may be required based on the outcome of the night bat survey(s). If any bat roosts are confirmed from this survey schedule, a bat licence would be required to demolish the buildings as it would involve the destruction of roosts. This is applied for with the help of a class 2 licensed bat ecologist after planning permission is granted, but before commencement of works. An EPSL application to Natural England will be required. The EPSL application requires that all surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission. **Foraging and commuting habitat** No further surveys are required. **Artificial lighting** A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2 **Suggested biodiversity enhancements** The installation of six bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be incorporated into the fabric of the new dwellings. They will be suitable for pipistrelles (which have been identified locally through EPSL data). Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.
Birds	
Summary of Survey Findings	**Buildings** No evidence of nesting birds was identified on or within B1-B5. The buildings are deemed to provide negligible habitat value for nesting birds due to a lack of suitable nesting sites or access points.

	Trees and vegetation No bird nests were identified within the vegetation on-site, however they all offer nesting opportunities and nest-building resources for birds. **Barn owls** The site does not appear to provide any suitable nesting sites for barn owls. **Overwintering birds** Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.
Foreseen Impacts	**Buildings/trees** The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests. **Barn owls** None foreseen. **Overwintering birds** None foreseen.
Recommendations	**Buildings/trees** Any building or vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged. **Barn owls** None required. **Overwintering birds** None required. **Suggested biodiversity enhancements**

	The installation of a minimum of four bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Reptiles	
Summary of Survey Findings	**EPSL data** A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site. **Habitat suitability** There is no suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are considered unlikely to migrate from any nearby suitable habitats to the development site. As such it is likely that reptiles are absent from the development site.
Foreseen Impacts	No impacts are anticipated on reptiles as a result of the proposed development.
Recommendations	None required. **Suggested biodiversity enhancements** The site could be enhanced for reptiles post-development with the inclusion of log piles (created from felled materials) and planting of areas of native shrubs, to provide sheltering opportunities.
Amphibians	
Summary of Survey Findings	**EPSL and survey data** A review of the MAGIC database returned no granted EPSL records for great crested newts within 2km of the site. Further, no positive class survey licence return or DLL historic survey data (2017 – 2019) were present within 2km of the site. **Habitat suitability**

	No ponds are present on site, there is a waterbody present approximately 310m northwest of the site. However, there are significant barriers to dispersal from this water body to the site. the site is separated by residential dwellings and their accompanying enclosed gardens, as well as the very busy Kew Road. The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and amenity grass offer sub-optimal habitat for terrestrial amphibians. The hedgerows may offer refuge for these species, however given the urban nature of the surrounding landscape (i.e. dominated by roads and hard standing which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site. Further, there is limited suitable terrestrial habitat across the wider landscape reducing the likelihood of amphibians being present on site and across the surrounding areas.
Foreseen Impacts	Given the lack of suitably connected breeding ponds within 500m of the site, the presence of GCN on-site is considered unlikely and therefore impacts to amphibians as a result of the proposed development are deemed to be acceptably low.
Recommendations	None required. **Suggested biodiversity enhancements** The site could be enhanced for amphibians post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum
Badger	
Summary of Survey Findings	No badger setts were noted on site or within a 30m radius of the site. The site is considered unsuitable for badgers given the lack of suitable sett excavation areas/ground. Further, there is limited suitable badger foraging habitat on site given the lack of fruiting trees/scrub. The site is also surrounding by urban development (i.e. roads and buildings), which is sub-optimal habitat therefore reducing the likelihood of badgers being present within the surrounding area of the site.
Foreseen Impacts	No impacts are anticipated on badgers as a result of the proposed development.
Recommendations	None required. **Suggested biodiversity enhancements** Planting fruit bearing trees and species-rich grassland to increase foraging opportunities for badgers.
Riparian animals	
Summary of Survey Findings	A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site. There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.
Foreseen Impacts	No impacts are anticipated on riparian animals as a result of the proposed development.
Recommendations	None required.
Hazel dormouse	

Summary of Survey Findings	**EPSL data** A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site. **Habitat suitability** The site lies outside of the know current range for hazel dormice and there are no suitable habitats within the development area. As such it is considered likely that hazel dormice are absent from site.
Foreseen Impacts	No impacts are anticipated on hazel dormice as a result of the proposed development.
Recommendations	None foreseen.
Other e.g. hedgehog	
Summary of Survey Findings	Hedgehogs are well adapted to the urban environment, and although no evidence of their presence was found during the survey, their future presence on site for transient periods cannot be discounted.
Foreseen Impacts	Vegetated garden will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
Recommendations	A precautionary working method will be implemented during construction, including the following measures: • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. **Suggested biodiversity enhancements** The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: • Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. • Creation of brash piles or installation of hedgehog houses in shady areas. • Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

Appendix 1: Survey/Habitat map

Appendix 2: PRA Plan

Appendix 3: Location map

Appendix 4: Proposed plan

Proposed plan not available at the time of writing this report.

Appendix 5: Photos

Photograph	Description
	**B1 – Southeast elevation closeup** **The roof of B1 is clad in clay tiles. There are a few areas where these tiles have slipped and/or are raised. These areas have created gaps which could be utilised by crevice dwelling bats for roosting, such as common or soprano pipistrelle.**
	**B1 – Interior** **The photograph to the left is indicative of the interior of all the buildings. There are no separate loft spaces in any of the buildings, and all have been converted to habitable living space. This reduces the opportunities for void dwelling bats.**

	**B1 – West elevation** **The roof tiles on all the buildings are in good condition (with the exception of the aforementioned lifted tiles on the southern elevation of B1). The tiles are tight-fitting, there are none missing nor raised. There are therefore no suitable roosting features for bats.**
	**B1 – North elevation** **The brickwork on all the buildings is in good condition, it is well-mortared and there are no gaps or cracks in which bats could roost.**

	**Vegetated garden – Eastern boundary**
	**Vegetated garden – Eastern boundary**

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Version control			
Status	**Issue**	**Name**	**Date**
Final	0.1	Jamie-Lee Anderson, BSc (Hons) Consultant Ecologist	21/05/2024