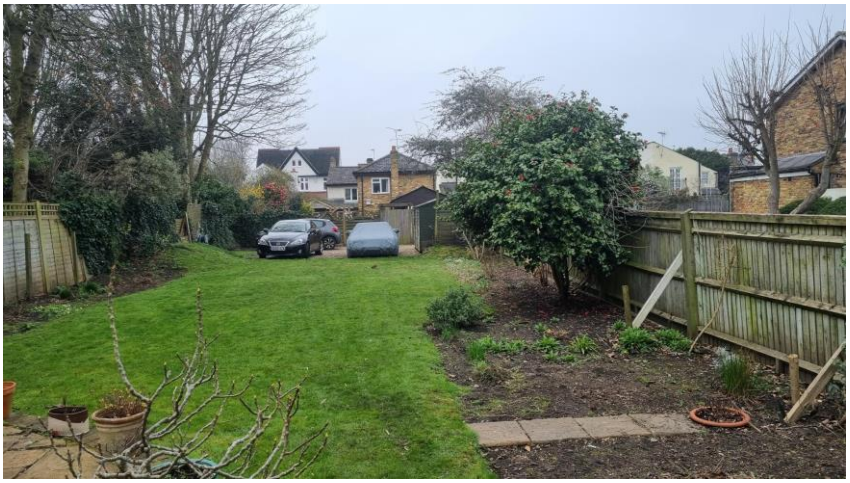

CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN (BIODIVERSITY)

Land to the rear of 39 Second Cross Road, Twickenham,TW2 5QY.

A REPORT FOR ANDREW FRYATT

This report has been compiled to guide all construction activities to facilitate development at the site

Orlando Campbell ACIEEM

Assessment completed in September 2024

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Table 0.1 - Document and Version Control

Author	Orlando Campbell BSc (Hons) ACIEEM		
Site	Land to the rear of 39 Second Cross Road, Twickenham		
Reference	CE24156		
Type	Construction Environment Management Plan (CEMP)		
Version	Approved	Checked	Date
V1	Clara Gonzalez Hernandez MCIEEM	Linda Kerrison ACIEEM	10/9/24

Copyright and guidance

The surveys and assessment have been drafted to be in accordance with; Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition), British Standard for Biodiversity BS42020:2013, Biodiversity - Code for planning and development and; the Code of Professional Conduct published by the Chartered Institute of Ecology and Environmental management.

N.B. It must be noted that investigations of this sort provide only a snapshot in time of the ecological conditions of a site, are limited in extent and cannot capture the full picture of the biodiversity interests at the given location.

Contents

1 Introduction

Overview of the commission and the proposals

1.1. Co-ecology Limited was commissioned by Andrew Fryatt to compile a Construction Environment Management Plan (CEMP): Biodiversity in relation to the proposed development at Land to the rear of 39 Second Cross Road, Twickenham, TW2 5QY.

1.2. This Construction Environmental Management Plan (CEMP) document has therefore been written to ensure compliance with Condition 10 set by Richmond upon Thames London Borough Council relating to development within the site (Planning Application Reference: 22/0252/HOT):

1.3. **"***The development hereby permitted, including any works of demolition, shall not commence until a Construction Environmental Management Plan ('CEMP') (to include any demolition works) has been submitted to and approved in writing by the local planning authority. The CEMP shall detail how the biodiversity of the area shall be safeguarded during construction. Thereafter, the construction of the development shall be undertaken in accordance with the approved CEMP."*

1.4. This CEMP is provided to guide construction activities.

Background

1.5. In order to inform the proposals, the following survey/assessment work was produced:

- Habitat and protected species assessment was undertaken by Orlando Campbell BSc (Hons) ACIEEM on the 6th March 2024.
- Ecological Enhancement Plan (Co-ecology, 2024).
- Tree Survey Report, Arboricultural Impact Assessment & Arboricultural Method Statement (Tree Craft Ltd, 2024)

Site Context

1.6. The site is approximately 0.045 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TQ 15111 72846. The site lies within the district of Twickenham in the London Borough of Richmond and is situated within the Twickenham Green Conservation Area.

1.7. The site comprises a residential garden at the rear of 39 Second Cross Road, with vehicular access and a gravel driveway from the adjacent Chilvers close. The site comprises modified grassland, scattered trees, ornamental shrub vegetation, patio and two sheds. The perimeter of the site consisted of a wooden fence with a gated driveway entrance.

1.8. The site is bordered on all aspects by residential dwellings and associated gardens. Three mature trees in the neighbouring property overhang the garden.

Proposed Works

1.9. Proposals include the construction of a two-storey dwelling within the garden of 39 Second Cross Road, two new parking spaces and soft landscaping. This will result in the loss of the majority of grassland, patio and ornamental shrub beds. Two small trees, which are in poor health, will be removed to facilitate the development (Tree Craft Ltd, 2024). The neighbouring trees that overhang the site will be pollarded, retained and protected.

1.10. There is no demolition included within the proposals.

Relevant Legislation and Planning Policy

1.11. The following key pieces of nature conservation legislation are relevant to this CEMP:

- The Conservation of Habitats and Species Regulations 2017 (as amended) (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

1.12. The National Planning Policy Framework (Department of Communities and Local Government, 2021) requires local authorities to avoid and minimise impacts on biodiversity and to provide net gains in biodiversity when making planning decisions.

2 Ecological/Biodiversity Features

Designated Sites

2.1. There are three statutory designated sites within 2km of the site boundary; Bushy Park Site of Special Scientific Interest (SSSI), Ham Lands Local Nature Reserve (LNR) and Crane Park Island LNR.

2.2. There will be no detrimental impacts to the designated sites due to the small scale of the development that is already encompassed in an urban landscape.

Habitats and Flora

2.3. The site comprises of formal gardens consisting of a modified grassland lawn surrounded by hardstanding patio and ornamental shrub beds. The lawn was managed and kept to a short sward. Two ornamental trees, a Cotoneaster and a severely decayed pear tree will be removed to facilitate the development (Tree Craft Ltd, 2024). Two sheds are also onsite and will be either retained or replaced on a like for like basis.

2.4. All trees and shrubs removed to facilitate the development will be replaced on a like-for-like basis using native species where possible

Baseline Surveys

2.5. No formal ecological surveys or assessments of the site have been undertaken due to the small scale of the development in an urban environment.

2.6. A habitat and protected species assessment was undertaken by Orlando Campbell BSc (Hons) ACIEEM on the 6th March 2024 in dry and sunny weather conditions. The survey identified the site as having low ecological value due to the low diversity of flora and fauna and suspected absence of protected species. The current owner reporting that blue tits *Cyanistes caeruleus*, robins *Erithacus rubecula* and grey heron *Ardea cinerea* often visit the site as well as Lepidoptera species. Frog spawn was identified in a pond in an adjacent property which is well connected to the site.

2.7. Following the recommendations made in afore mentioned reports, a series of measures are described in this document to protect ecological features identified at the site and within the wider landscape, including:

- Bats – sub-optimal foraging habitat is present immediately adjacent to the site.
- Nesting Birds – the vegetation in and around the site had high potential for nesting birds.
- Hedgehogs - general foraging opportunities are supported within the site and the site is well connected to the wider landscape.

2.8. Biodiversity objectives were determined through consideration of the information collated during the ecological surveys at the site. These are detailed in Table 2.1 below.

Table 2.1 Biodiversity Objectives

Ecological Feature	Target
Bats	Enhancement of suitable bat foraging habitat and provision of new roosting opportunities within the development site.
Nesting Birds	Ensure nesting opportunities are not compromised, foraging habitat is maintained. Enhancement of suitable nesting and foraging habitat with the provision of new shrub planting and incorporation of bird nesting boxes into the development site.

Table 2.1 Biodiversity Objectives

Ecological Feature	Target
Hedgehogs	Improve connectivity by installing 'hedgehog highways' along the boundary features.
Invertebrates	Landscape planting throughout the site will ensure that there is sufficient structural diversity, and suitable species, to provide ideal conditions for the local invertebrate communities. Enhance the site further by including stag beetle loggeries to provide resting and food resource for invertebrate populations.

3 Risk assessment of potentially damaging activities

3.1. Potentially damaging construction activities are listed below. These have been identified from: the proposed site layout as detailed in the site layout below; the construction practices; and current guidance on activities/operations likely to result in impacts to ecological features (CIEEM, 2016):

- Movement of machinery and vehicles;
- clearance of all vegetation;
- removal of trees and scrub;
- digging/excavation or infilling;
- pollution/silt runoff;
- dust/air pollution;
- noise;
- lighting;
- spreading, discharge or storage of materials;
- construction of access roads, areas of hardstanding and buildings/structures;
- laying of pipes and cables;
- erection of permanent or temporary structures; and
- engineering works including drilling.

3.2. Taking into consideration the expected zone of influence of each of these activities, potential direct or indirect impacts resulting from the proposed construction activities have then been identified in the absence of mitigation. These include (but are not limited to) short-term impacts (i.e., disturbance) and long-term impacts (i.e., modification, loss, and fragmentation/ isolation).

3.3. Aspects of ecological structure and function considered when predicting impacts included available resources, environmental processes, ecological processes, human influences, historical context, ecological relationships, ecological role or function, ecosystem properties and other environmental influences, in accordance with current guidelines (CIEEM, 2016).

3.4. Potential impacts on ecological/biodiversity features (in the absence of mitigation) are summarised in Table 3.1 below.

Table 3.1 – Potential impacts from construction related activities

Activity	Bats	Nesting Birds	Hedgehogs
Movement of machinery and vehicles	No Impact	Disturbance	Disturbance
Site clearance - scrub	Loss of foraging habitat	Loss of foraging habitat and disturbance	Loss of foraging habitat and disturbance
Site clearance – tree removal	Loss of foraging habitat Possible loss of future roosting opportunities	Loss of foraging habitat and nesting opportunities	Disturbance
Digging/excavation or infilling	No Impact	Disturbance	Disturbance and entrapment
Pollution/silt runoff	No Impact	No impact	No Impact
Dust/air pollution	If dust and air pollution enter roosts within close proximity, respiratory function could deteriorate.	Deterioration in respiratory function, reduced reproduction success	Deterioration in respiratory function, reduced reproduction success
Noise	Disturbance	Disturbance, abandonment of nests	No Impact
Lighting	Fragmentation of suitable foraging habitat. Roost abandonment	Fragmentation of suitable foraging habitat. Abandonment of nests. Reduced reproduction success.	No impact
Spreading, discharge or storage of materials	No Impact	No impact	No impact
Construction of access roads, areas of hardstanding and buildings/structures	Fragmentation of habitats suitable for foraging.	Fragmentation of habitats suitable for foraging.	No impact
Laying of pipes and cables	No Impact	No impact	No impact

Table 3.1 – Potential impacts from construction related activities

Activity	Bats	Nesting Birds	Hedgehogs
Erection of permanent or temporary structures	Fragmentation of foraging habitats	Fragmentation of habitats suitable for foraging.	No impact
Engineering works including drilling	No Impact	No impact	No impact

4 Biodiversity Protection Zones

4.1. Vegetation removal and construction works will be confined to within the site boundary.

4.2. To assist in the management of the potentially damaging activities identified in the previous section, a Biodiversity Protection Zones (BPZ) will be established, the BPZ will entail all the surrounding habitats outside the site boundary.

4.3. The biodiversity protection zone will be protected with the use of Heras™ or Netlon™ fencing and/or tree protection fencing encompassing the site boundary. Tree protection fencing will be installed following the specifications indicated within the Arboricultural Method Statement (Tree Craft Ltd, 2024).

4.4. The fencing will be kept in place for the duration of all construction activities, including the final soft landscaping.

4.5. The BPZ will be used to protect the ecological receptors that will be retained during construction and ensure that the areas are kept free from direct and indirect disturbance for the duration of all construction activities.

5 Practical Measures to Avoid or Reduce Impacts

5.1. For each potential impact identified, all mitigation options provided follow the established mitigation hierarchy as set out in BS 42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. All mitigation measures follow current best practice guidance (CIEEM, 2014), and are proportionate to the level of impact identified and to the nature and scale of the proposed works.

Bats

Avoidance

5.2. The two trees proposed to be removed for the development are small ornamental species (Tree Craft Ltd, 2024) and therefore unlikely to be suitable for roosting bats due to the absence of suitable roosting features.

5.3. There will not be any night lighting or working overnight during the construction phase, to avoid direct or indirect impacts to any bat species that could be utilising the surrounding habitats.

Mitigation

5.4. As an additional safeguard for bats during the time of year when dusk occurs prior to 18.00; during winter months and the latter part of autumn and early spring, spill shields and directional lighting will be used throughout the construction period. This will serve to ensure that bat foraging and commuting routes associated with the site boundaries are not directly illuminated prior to 18.00.

5.5. Soft landscaping should include night-scented flowering plants, nectar-rich plants, and a wide variety of species to encourage a diverse insect prey population.

Birds (General Nesting)

Avoidance

5.6. To avoid the disturbance of active nesting birds, any suitable habitat that is within the construction footprint (the shrub and trees) will be cleared outside of the main bird nesting season (March – August).

5.7. Any works taking place to the boundary trees in the neighbouring property (including crown reduction and lifting) will be carried out between August and March.

5.8. Lighting of suitable habitats must be avoided as above.

Mitigation

5.9. Vegetation removal will occur outside of nesting bird season. If this is not possible the vegetation will need to be surveyed by a suitably qualified Ecological Clerk of Works (ECoW) immediately prior to removal.

Hedgehog

Avoidance

5.10. Suitable habitat that is within the construction footprint will be cut down during the winter when hedgehogs are not active. Any habitat suitable for hibernation should be searched prior to cutting.

5.11. Holes and trenches must be covered at night to ensure no mammals become trapped overnight.

5.12. Lighting of suitable habitats must be avoided as above.

Mitigation

5.13. Any dense vegetation to be impacted by the development, must be sensitively searched prior to destruction. If a hedgehog is found it must be moved to a suitable area bordering the site, which is well connected to similar habitat.

5.14. Two hedgehog highways will be incorporated into the design of the new boundary fences to allow hedgehogs to safely travel through the site. Hedgehog highways will be installed at the end of the construction period to reduce the risk of hedgehogs entering the site during the development phase.

Other

5.15. If at any time, evidence of a previously unidentified protected species or invasive non-native species is encountered, then works must immediately cease and an ecologist consulted to ascertain the best way to proceed with the works. This may involve the need for additional mitigation.

6 Scope of Works and Schedule

6.1. The scope of works will involve site clearance to facilitate construction activities. There will be no additional land take, beyond the proposed development boundary, for the purposes of site compounds or storage areas etc.

6.2. The mitigation and enhancements will be undertaken in accordance with the proposed programme of works. The programme will take into account seasonal constraints, the expected timetable of works (i.e., when site clearance needs to be undertaken, and when construction works are due to commence) and any other timing considerations.

6.3. The Principal Contractor and the Project Ecologist will review the scope of works, design a timetable to agree and ensure appropriate on-site supervision is provided to avoid/mitigate impacts on protected species as outlined above (see Mitigation). The timetable for ecological supervision must be agreed prior to works commencing on site.

Timing of Sensitive Works and Presence of an Ecological Clerk of Works (ECoW)

6.4. An ecology watching brief will be required if tree and scrub removal is undertaken during the bird nesting season (March to August inclusive). Any habitat suitable for hibernation should be searched prior to cutting.

Table 6.1 Timing of Works (x = timing of activity)

Task	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Habitat clearance outside of breeding bird season	X	X	X						X	X	X	X
Site preparation	X	X	X						X	X	X	X
Installation of protection Heras fencing around construction area	X	X	X	X	X	X	X	X	X	X	X	X
Boundary vegetation work	X	X	X						X	X	X	X
Soft landscaping – hedgerow and tree planting (after construction)			X						X	X	X	
Installation of bird and bat boxes, hedgehog highways and stag beetle logger (after construction)	X	X	X	X	X	X	X	X	X	X	X	X
Construction related activities	X	X	X	X	X	X	X	X	X	X	X	X

7 Mechanisms to Secure Delivery

7.1. Prior to the commencement of any works on site, including the setting up of site compounds and access onto the site, the Principal Contractor (and any personnel appointed by the Principal Contractor) will receive a formal briefing by the project ecologist. This briefing will detail all relevant protected species issues as set out within this CEMP (Biodiversity). A copy of this document must be read and understood by all contractors conducting the works.

7.2. The Principal Contractor will then be responsible for relaying any necessary information to contractors on site, either employed by them directly or third parties. Advice will be sought from Co-ecology Ltd. in the event of complex issues arising or in cases where there is any doubt as to the action to be taken. Any proposed deviation from this CEMP (Biodiversity) will be discussed with Co-ecology Ltd prior to seeking approval from the Local Planning Authority as necessary.

7.3. The site is owned by Mr and Mrs Bianchi, and they are responsible for arranging site access and contractors accordingly.

7.4. The contractor responsible for overseeing the construction of the new property and ensuring that all personal read and understand this management plan and that the measures within this plan are followed is Westmount New Homes Ltd.

7.5. The client or a third party employed to undertake specific services, will be responsible for implementing all the necessary avoidance/mitigation measures detailed within this CEMP (biodiversity). These actions will proceed under ecological supervision where relevant.

7.6. A suitably qualified and experienced ecologist, licensed/accredited where necessary, will be provided and act as an ECoW. The role of the ECoW is in accordance with BS 42020:2013 (BSI, 2013) and will satisfy the following requirement:

'An ecological Clerk of works should be able to demonstrate a level of experience and competence commensurate with the complexity of the role needed on site to deal with the wide range of ecological issues likely to be encountered and to adapt to new and unforeseen challenges raised by development activities.'

Responsible Persons and Lines of Communication

7.7. Details of personnel and lines of communication necessary for the full implementation of the CEMP (Biodiversity) are summarised in Table 7.1 below. This is provided to ensure that the project team know who to liaise with and which personal are undertaking the required tasks.

Table 7.1 Responsible persons and lines of communication Features

Required Information	Responsible Person	Line of Communication
Advice and monitoring in relation to regulations, legal consents, planning conditions, environmental procedures and contractual arrangements.	ECoW: Co-ecology	orlando@co-ecology.co.uk 07977494812
Contingency measures in the event of an accident or occurrence of other potentially damaging incidents.	Lead Contractor: Westmount New Homes Ltd (Mark King or Paul Francis	Westmount New Homes Ltd 54 Penhill Road Bexley DA5 3EN Mark King or Paul Francis mark@wmnh.co.uk paul@wmnh.co.uk 07958 515 765 07960 879440
Periodic reporting on the success of advice/toolbox talks etc. as required, for example, by planning conditions.	Lead Contractor (TBC), ECoW, Co-ecology and Project Manager (TBC)	All reporting fed back to the Project Manager (TBC)

References

Andrew Fryatt Associates (2024). *39 Second Cross Road, Twickenham- Proposed site plan*. Drawing no. SCR20-05

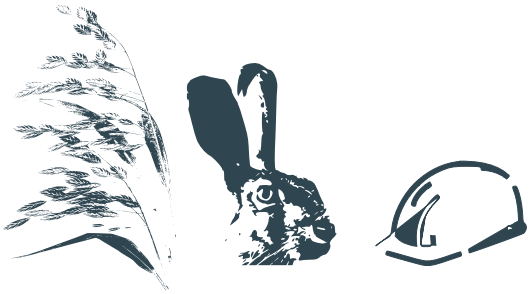
British Standards Institution (2012) *BS 5837:2012- Trees in relation to design, demolition and construction*. BSI, London.

British Standards Institution (2013). *Biodiversity – Code of practice for planning and development*. BS 42020:2013. BSI, London.

CIEEM (2019) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Version 1.1.* Chartered Institute of Ecology and Environmental Management, Winchester.

Tree Craft Ltd (2024) *BS5837 Tree Survey Report, Arboricultural Impact Assessment & Arboricultural Method Statement. 39 Second Cross Road, Twickenham.*

Twickenham Surveys (2019) *Topographical Survey*. Drawing number TB2019LS.



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