

**Island Reach
River Gardens
Bray
Maidenhead
SL6 2BJ**

Construction Environmental Management Plan (CEMP: Biodiversity)

**Report prepared by John Wenman MCIEEM
Ref: R3615/a**

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1 INTRODUCTION

1.1 Project Background

1.1.1 John Wenman Ecological Consultancy LLP was commissioned by Island Reach Bray Limited to produce a Construction Environmental Management Plan focusing on protection of site biodiversity (CEMP: Biodiversity) to ensure compliance with relevant legislation relating to redevelopment of the dwelling at Island Reach in Bray, Berkshire (refer to proposed plans in **Appendix 1**).

1.1.2 Planning approval issued by the Royal Borough of Windsor and Maidenhead Council stipulated the following condition (Planning Application Reference 23/00940/FULL):

No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the local planning authority. The CEMP (Biodiversity) shall include the following.

a) Risk assessment of potentially damaging construction activities.

b) Identification of "biodiversity protection zones".

c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts on river and bats during construction.

d) The location and timing of sensitive works to avoid harm to biodiversity features.

e) The times during construction when specialist ecologists need to be present on site to oversee works.

f) Responsible persons and lines of communication.

g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.

h) Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

Reason: *To minimise impacts on biodiversity in accordance with Paragraph 180 of the NPPF and local policy NR2.*

1.1.3 This report considers and relies on information gathered during site visits for bat surveys completed in 2023.

1.2 Description of Development Site

1.2.1 The bungalow is situated on the Northern edge of the River Gardens residential close, which lies to the east of the village of Bray (OS grid reference: SU 9075 7972).

1.2.2 The property is in a semi-rural setting, with residential buildings to the east, south and west of the property, as well as a large green to the front. The surrounding landscape comprised of a variety of natural habitats, with the River Thames flowing directly to the rear of the property (north) with

Headpile Eyot (an island) covered with deciduous woodland. There were other deciduous and broadleaf woodlands sporadically within 1 km of the site (approximately 240m to the east, approximately 400m to the east and 478m to the north-west). These woodlands, as well as the surrounding area, are a part of the national habitat network enhancement and improvement zones. The site lies within the SSSI impact risk zone of SSSI Bray Meadows, which is made up of lowland meadow, and is approximately 860m to the west. Approximately 1km to the west is Braywick Park – a Local Nature Reserve (LNR).

- 1.2.3** Overall, the rural, riverine, and wooded setting provides bats with an abundance of high-quality commuting and foraging habitat in the vicinity.

2 ECOLOGICAL BACKGROUND

2.1 Ecological Surveys and Background Information

2.1.1 To inform the development proposals and approach to ecological mitigation, the following ecological surveys and assessments were carried out:

Preliminary Bat Roost Assessment (R2512/a); May 2020; Updated Preliminary Bat Roost Assessment (R3290/a); November 2022; and Bat Emergence Survey (R3500/a); July 2023.

2.1.2 An Arboricultural Impact Assessment and Tree Protection Plan (TGA Arboricultural Consultants; March 2023) have been prepared to support the planning application and have been referred to when preparing this CEMP.

2.2 Desktop Study

2.2.1 A search was carried out of pre-existing data relating to statutorily designated sites, habitats of principal importance for conservation (HPI) (as defined under Section 41 of the NERC Act 2006) and protected species (Natural England mitigation licences and great crested newt licence returns) published on the MAGIC website.

2.3 Ecological and Biodiversity Features

2.3.1 The site comprises of the existing bungalow and garage and games room under construction with tarmac hard standing forming a parking area in front of the bungalow. The plot comprises primarily of lawn with small areas of formal shrub planting. A Leyland cypress hedge forms the eastern boundary and scattered trees including magnolia, ash, weeping willow, sycamore and cherry plum are situated around the bungalow.

2.3.2 Pre-existing data shows the site is not statutorily designated for its wildlife interest; the closest – Bray Meadow Site of Special Scientific Interest (SSSI) is situated approximately 820m to the west. The site is not mapped as supporting habitats of principal importance for conservation (HPI). The wooded islands in the River Thames c. 20m to the north of the plot, are mapped as ancient woodland – an irreplaceable habitat - and as Lowland Mixed Deciduous Woodland HPI.

2.3.3 A mitigation licence permitting the destruction of a soprano pipistrelle (*Pipistrellus pygmaeus*) was issued for the neighbouring property in 2018. A licence permitting the destruction of common pipistrelle (*Pipistrellus*

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pipistrellus) and soprano pipistrelle resting places was issued in 2016 for a site just under 1km to the south east.

2.3.4 The main ecological features on and close to the site identified during the site visits were:

- River Thames.
- Potential for hedgehogs using the shrub beds and to cross the formal lawn on site.
- Potential for individual common reptiles and amphibians traversing the grassland and shrub beds on site.
- Bat feeding habitat along river corridor and around the bungalow; possible future use of low potential bat roost features in the bungalow.
- Nesting opportunities for common and widespread bird species in hedgerow and scattered trees.

3 IMPACTS

3.1 Potentially Damaging Activities

3.1.1 Potentially damaging construction activities are listed below. These have been identified from: the proposed site layout as detailed in **Appendix 1** and the proposed construction practices and current guidance on activities/operations likely to result in impacts to ecological features (CIEEM, 2016):

- Movement of machinery and vehicles;
- Site clearance;
- Digging/excavation or infilling;
- Noise;
- Lighting;
- Construction of hardstanding and buildings;
- Laying of pipes and cables;
- Engineering works including drilling.

3.1.2 The expected zone of influence of these activities were considered, along with any potential direct or indirect impacts resulting from the proposed construction activities identified. These include short-term impacts (i.e. disturbance) and long-term impacts (i.e. modification, loss, and fragmentation). An assessment of the impacts of these potentially damaging construction activities on ecological features on site to inform the location of protected areas and the approach to mitigation and are detailed below in **Section 3.2** and **Table 1**.

3.2 Impacts on Ecological Features

3.2.1 Based on the requirements made in the planning condition, and the site-specific ecological factors, this CEMP refers to the potential impacts, and associated risk level of these impacts, on these ecological features:

- River Thames
- Retained trees

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- Bats
- Hedgehogs
- Reptiles and amphibians
- Nesting birds

Table 1 – Assessment of impacts of potentially damaging activities on identified ecological features

<u>Ecological Feature</u>	<u>Impact Assessment</u>	<u>Risk Assessment</u>	<u>Location of Risk</u>
<i>River Thames</i>	Construction and demolition could result in pollution of the water environment owing to chemical and fuel spillages from construction/demolition plant and material; and dust and sedimentation/siltation of surface waters may arise as a result of the disturbance of the soil and import of and storage of loose materials	During the ground and construction works there is a chance that there could be materials entering the river that will adversely affect the water quality and associated wildlife. In the absence of mitigation, the risk is <u>moderate</u> .	River and river edge
<i>Scattered Trees</i>	Indirect impacts from movement of vehicles, groundworks and storing of materials to retained habitat along boundaries with damage to tree roots during construction affecting tree health and longevity of trees.	During the ground and construction works there is a chance that there could be damage to roots. In the absence of mitigation, the risk is <u>moderate</u> .	Scattered trees (T1 – T7) and boundary hedge (G6)
<i>Bats</i>	Risk to roosting bats if they occupy low potential roost features in the bungalow before demolition. Indirect impacts through lighting during construction.	Impacts possible in the absence of mitigation and risk is <u>low</u> .	Bungalow and scattered trees and riverine habitats
<i>Reptiles and Amphibians</i>	Direct impacts possible during ground clearance of shrub beds and buildings could cause death or injury to sheltering individuals.	Impacts possible in the absence of avoidance measures and risk is <u>low</u> .	Shrub beds and lawn
<i>Hedgehogs</i>	Direct impacts possible during ground clearance of shrub beds and buildings could cause death or injury to sheltering individuals.	Impacts possible in the absence of avoidance measures and risk is <u>low</u> .	Shrub beds and lawn
<i>Nesting Birds</i>	Direct impacts through removal of shrubs during the breeding season could damage active bird nests, with potential to result in the death or injury of eggs and young.	Impacts possible in the absence of mitigation and risk is <u>moderate</u> .	Shrub beds

4 CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

4.1 Scope of Works

4.1.1 The scope of works will involve site clearance, including demolition of the existing bungalow and garage, to facilitate the construction of the new dwelling and associated hard landscaping. The existing trees will be retained and protected in accordance with the tree protection plan (refer to the CEMP plan in **Appendix 2**).

4.2 Responsible Persons

4.2.1 The landowner and the appointed contractor are responsible for the implementation of this CEMP. During the works, responsibility will be held by contractor's site manager or a suitable delegate to ensure that all personnel working on site are aware and adhere to this CEMP. All personnel working on site will have site inductions and toolbox talks on the potential for protected species to be present on site, of relevant protection measures and the procedure for alerting the Ecological Clerk of Works (ECoW) if any protected species are discovered on site when the ecologist is not present.

4.3 Lines of Communication

4.3.1 John Wenman Ecological Consultancy have been appointed to advise on ecological issues and to act as the Ecological Clerks of Works (ECoW) for the duration of the project. The ECoW will be responsible for:

- Delivering a toolbox talk to inform all site contractors of the ecological constraints and protection measures outlined in the CEMP;
- Providing on-site supervision of works where necessary, as stated in the CEMP (details in **Table 2**); and
- Supplying ad-hoc ecological advice and support as required.

4.3.2 A start up meeting with the site manager will be held where the contents of this CEMP will be discussed. As part of their induction all contractors will be briefed by the site manager about ecology and protected species issues and legislation, and what measures will be taken should protected species be found. A copy of this CEMP will be kept in the site office and will be made available to contractors and staff on request.

4.4 Avoidance, Mitigation and Compensation Measures

4.4.1 All measures detailed in Table 2 follow the established mitigation hierarchy

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as set out in BS42020:2013 (BSI, 2013). This seeks to firstly avoid all impacts; mitigate for 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 and are appropriate to the degree of impact identified and to the scale of the works.

- 4.4.2** A Tree Protection Plan (TGA – 2541.TPP.002) illustrated in the CEMP Plan (**Appendix 2**) in combination with the location of ecological features identified on site during the site visits and a search of pre-existing data, has determined areas to be protected during the construction work, as identified in **Table 1**, to avoid damage and/or disturbance to protected species and habitats, and the layout of the protection areas is presented on an annotated CEMP plan in **Appendix 2**.

Table 2 – Mitigation strategy with timings and locations (with reference to the mitigation hierarchy)

<u>Ecological Feature</u>	<u>Avoidance and Mitigation</u>	<u>Compensation and/or Enhancement</u>	<u>Schedule of Works</u>	<u>Location</u>
River Thames	<p>A buffer will be created between the river and the buildings during demolition and construction and this will be demarcated with temporary fencing in addition to the tree protection fencing; no demolition or construction activities will take place within this zone.</p> <p>Measures will be taken to prevent pollution from fuel spillage and other emissions/run-off from mechanical demolition and construction on site with measures including restricting concrete and cement mixing to areas of hard standing farthest from the river; discharge of water from washing to foul sewers;</p> <p>Chemicals and fuels will be stored in secure containers and spill kits must be available;</p> <p>Noise and vibration will be controlled and kept to the minimum necessary;</p>	N/A	Temporary fencing erected before demolition begins with clear all weather signs showing 'Biodiversity Protection Zone'. Fencing will remain in place throughout the project.	River edge (refer to plan in Appendix 2)
Scattered Trees	The retained trees will be protected fenced with tree protection fencing (e.g. Heras panels) that will be set out in accordance with the Tree Protection Plan (PGA Tree Protection Plan) (This will ensure the protection of the trees on site from accidental damage during construction activities (see Appendix 2 for CEMP Plan).	Additional tree planting of native or species of benefit to wildlife will take place to increase the structural diversity and species diversity of the site.	Protective tree fencing will be put in place prior to the commencement of construction works. The fencing will remain in place throughout the construction period.	Scattered trees (T1 – T7) and boundary hedge (G6)

	<p>The fencing will have all weather notices attached to it, with the warning 'Tree Protection Zone – KEEP OUT'.</p> <p>No materials will be stored within this Tree Protection Zone and no activity is to take place within this area. The demolition of the derelict outbuilding on the southern boundary will be done carefully by hand wherever possible and any concrete footings removed by machine but avoiding extensive vehicle movement within the fenced area.</p>			
Bats	<p>Demolition will be preceded by a re-inspection of the features of low bat roost potential recorded during the bat roost assessments completed by a licenced ecologist. If evidence of bats recorded, demolition will only take place once mitigation licence is in place under the advice of the ecologist.</p> <p>During construction, external lighting will be kept to a minimum and if security lighting is required, this will be controlled by passive infra-red motion sensors with no light spillage on to any existing linear features likely to be used by bats, such as the northern riverine boundary, which will be maintained as a dark corridor with carefully designed external lighting i.e. using directional lighting controlled using passive infra-red sensors and directed, warm white LED lamps.</p>	<p>Retained commuting and foraging habitat i.e. trees and hedgerow to be protected throughout the construction.</p> <p>New tree planting will provide additional foraging opportunities.</p>	Pre-demolition inspection	Northern boundary hedge and scattered trees

Hedgehogs	<p>Any vegetation in the development area will be kept closely mown during the course of the works, with any open excavations and trenches to be backfilled before nightfall, or alternatively, escape ramps to be installed to allow hedgehogs and other small wildlife, to escape if they become trapped.</p> <p>Any building materials stored on site will be on the hard standing or bare ground and raised off the ground on pallets to prevent it offering temporary resting places or hibernation sites for hedgehogs.</p>	<p>The reinstated garden will include features that provide continued feeding opportunities for hedgehogs</p> <p>Any close board fencing will be installed so that it has no gravel boards, or so each fence line has 13cm square openings in the gravel boards to allow the free movement of hedgehogs.</p>	<p>Management of the grassland in the lead up to the commencement of works</p> <p>Precautionary measures to remain in place throughout the works.</p>	Site
Reptiles and Amphibians	<p>The grassland within the construction area will be kept short prior to the commencement of works to minimise the likelihood of individuals being present during excavations.</p> <p>Any vegetation in the development area will be kept closely mown during the course of the works, with any open excavations and trenches to be backfilled before nightfall, or alternatively, escape ramps to be installed to allow reptiles and newts, and other animals, to escape if they become trapped.</p> <p>Any building materials stored on site will be on the hard standing or bare ground and raised off the ground on pallets to prevent it offering temporary resting places or hibernation sites for reptiles and amphibians.</p>	<p>The reinstated garden will include features that provide continued feeding and cover opportunities for amphibians and reptiles.</p>	<p>Management of the grassland in the lead up to the commencement of works</p> <p>Precautionary measures to remain in place throughout the works.</p>	Site
Nesting Birds	<p>Any shrub removal will be timed to avoid the peak bird nesting (March to August inclusive)</p>	<p>Additional trees planting will provide cover, foraging resources and</p>	<p>Removal of shrubs to be completed within</p>	Trees and shrubs

	<p>or after a check to confirm that birds are not nesting currently.</p> <p>In the event that nesting birds are discovered during the course of the work, work will stop immediately, and the work will continue only once bird nesting has finished i.e. young have fledged and left the nest.</p> <p>If an active nest is present, a buffer area of at least 5 m (or wider as appropriate and dependent upon the species identified) will be implemented, or the vegetation retained until any young have fledged.</p>	<p>nesting opportunities for a range of common bird species.</p>	<p>September to February inclusive.</p> <p>If undertaken between March and August, a nesting bird check will be required, prior to removal of the shrubs.</p>	
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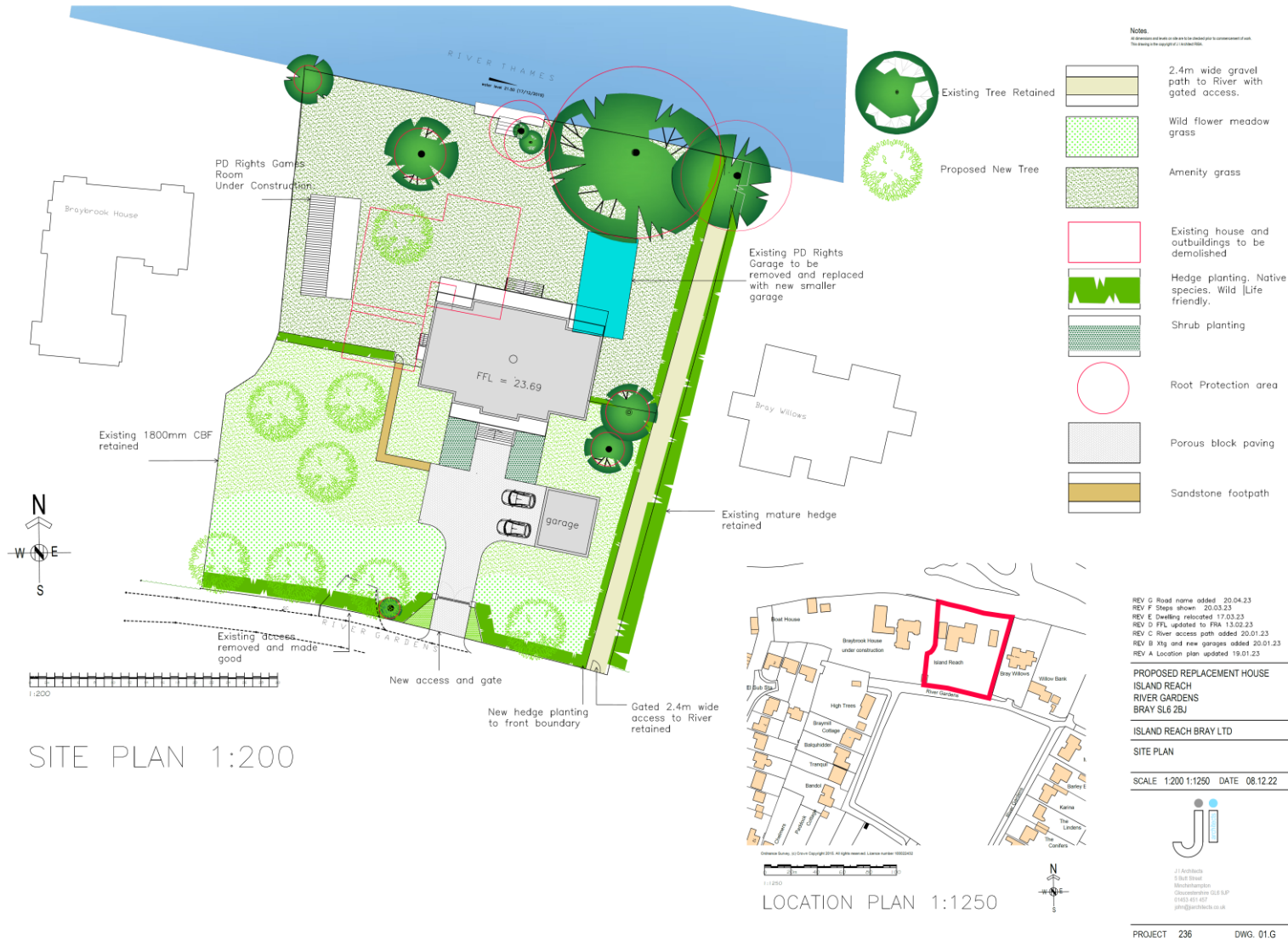
5 REFERENCES

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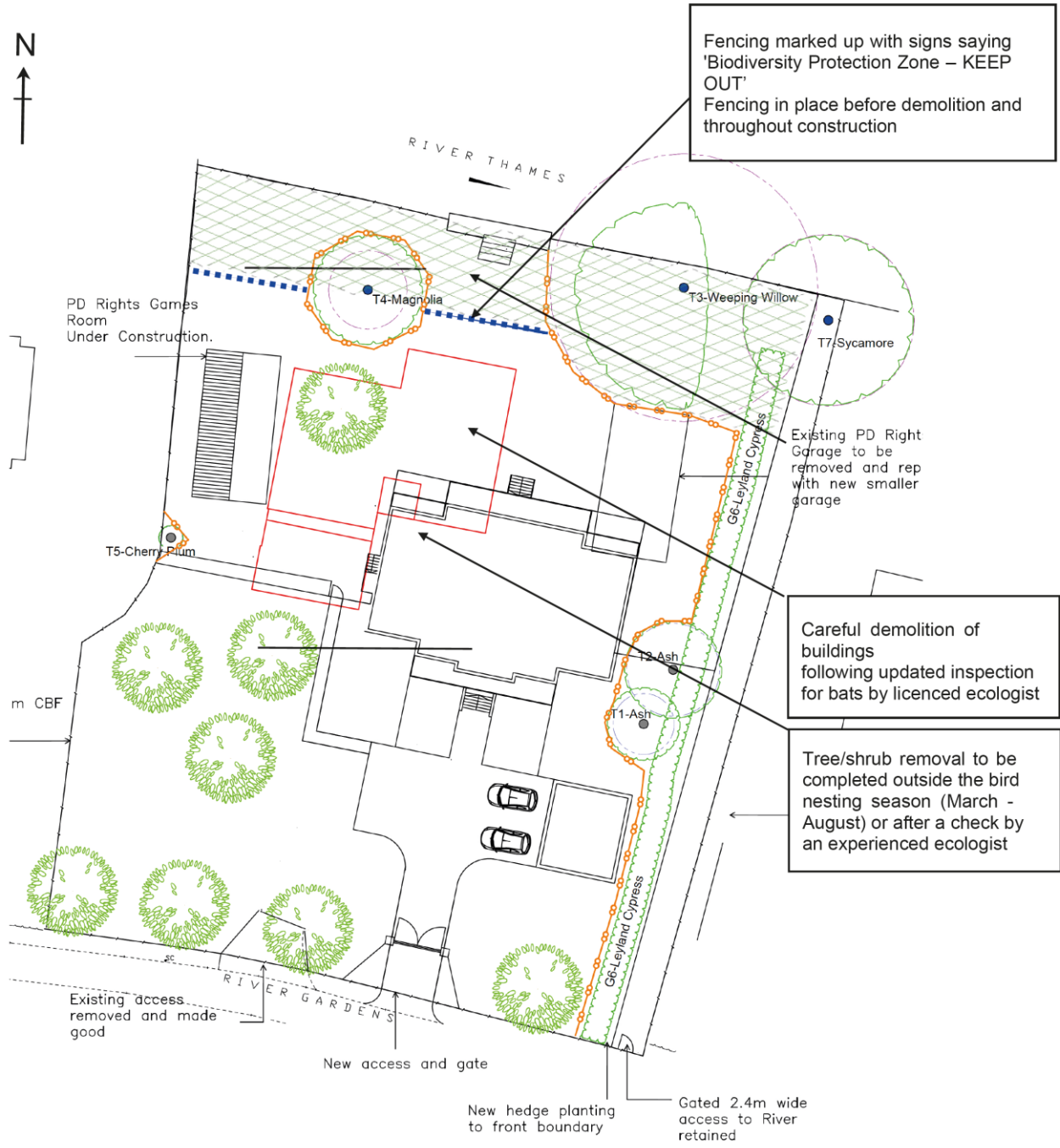
APPENDIX 1 – PROPOSED SITE LAYOUT



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Island Reach - CEMP-Biodiversity (R3615a)

APPENDIX 2 – CEMP PLAN (BIODIVERSITY)



..... Exclusion fencing (in addition to tree protection fencing) Biodiversity Protection Zone

Based on Tree Protection Plan (TGA drawing 2541.TPP.002)

Drawn by:	Date	Scale:	Island Reach, River Gardens, Bray	
JW	December 2023	Not to scale	CEMP Plan (Biodiversity)	

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