

Construction Ecological Management Plan (CEMP) and Ecological Enhancement Plan

for

Orchard Hill SEN School
5746/APP/2019/2403

December 2020

Planning

Quality Management	
Project:	Orchard Hill SEN School
Project No:	E20829
Report title:	Construction Ecological Management Plan (CEMP) and Ecological Enhancement Plan
Status:	Planning
Date of last revision:	14 th December 2020

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1. Ecological mitigation and enhancement

1 Introduction

1.1 Site location and context

- 1.1.1 The site comprises an existing school of approximately late-1960's to early-1970's date. It sits within a residential setting of predominantly two storey houses surrounding the site to the south and east. To the west it is bounded by Rabbsfarm Primary and to the north by parkland.
- 1.1.2 It is proposed that the existing school on the site will be demolished and rebuilt, to provide enhanced accommodation for both the existing and additional numbers of new pupils.
- 1.1.3 The northern part of the site is comprised of a grassed playing field, with an approximately 1m high mound separating the playing field from the school building and the MUGA to the south. Other than hedgerows, boundary habitat also includes some tree cover which is restricted to the eastern and southern boundaries of the southern half the site, where the school buildings are situated. There are several small areas of ornamental planting in the vicinity of the school buildings.
- 1.1.4 The Ordnance Survey Grid Reference for the approximate centre of the proposed development site is TQ06118098.

1.2 Description of proposed development

- 1.2.1 It is proposed that the existing school on the site will be demolished and rebuilt, to provide enhanced accommodation for both the existing and additional numbers of new pupils. The school will be strategically divided into two separate, independently functioning zones (Young People's Academy (YPA) and Young People's Hub (YPH) that will be operated by Orchard Hill College Academy Trust (OHCAT)

1.3 Supporting documents

- 1.3.1 The following plans have been reviewed in the preparation of this document.

Previous ecological studies

Preliminary Ecological Appraisal

- 1.3.2 A Preliminary Ecological Appraisal (PEA) was undertaken by the Landscape Partnership in August 2017. The PEA assessed habitats on site to be of value at up to the Parish level and with potential to support breeding birds and foraging and commuting bats. No further surveys were considered necessary.
- 1.3.3 The phase 1 habitat survey plan of the site is given in Figure 02.
Validity of previous study
- 1.3.4 The validity periods stated in the report for the desk-based study and for the Phase 1 Habitat Survey are given as 1-2, and 2 years respectively indicating that the report is beyond its validity period and should be reviewed.
- 1.3.5 The PEA report determined that habitats present were of Lower value, comprising amenity grassland, ornamental shrub, boundary hedgerow features and mature trees and were likely to support common species only. The site is understood to remain broadly as surveyed in 2017 being managed and maintained regularly as would be expected of an active school site with no significant changes either to the site or the immediate surrounding area which would be considered to enhance or diminish the ecological value of the site.
- 1.3.6 At the present time the current Coronavirus restrictions also significantly restrict the ability and desirability to revisit sites where a reasonable and proportionate desk-based approach to survey can be carried out.
- 1.3.7 It is therefore appropriate that the results of the 2017 PEA should be considered to remain applicable for the purposes of this application and as a base document for the preparation of this CEMP and Ecological Enhancement Plan.

Landscape proposals

- Planting Plans, schedule and details (Dwg Nos FS0637-ATK-Z2-XX-DR-L-981020, 981021 and 981022) produced by Atkins Ltd.

Arboricultural Method Statement

- Arboricultural Method Statement FS0637-ATK-XX-XX-RP-L-980003 produced by Atkins Ltd, April 2020

1.4 Acknowledgements

Report contributors

- 1.4.1 This report was written by Nick Aldus MCIEEM, and was reviewed by Dr Jo Parmenter, CEcol, CEnv MIEMA, Director of the Landscape Partnership.

Client

- 1.4.2 The Landscape Partnership was commissioned by David Fletcher on behalf of Strutt and Parker.

1.5 Objectives of this plan

- 1.5.1 The objectives of this report are to provide enough information to allow the London Borough of Hillingdon to discharge the following condition;

Prior to above ground works, a full ecological protection and enhancement scheme shall be submitted to and approved in writing by the Local Planning Authority. The scheme must include a clear and appropriately scaled plan showing the retention of the ecological features of interest and the specific measures to enhance opportunities for wildlife, including but not limited to; bat and bird boxes appropriately located, artificial refugia within the landscaping areas; wildlife specific planting (i.e. nectar rich planting) and a specific area within the landscaping that is developed specifically to enhance opportunities for wildlife.

The scheme shall also incorporate a report with a commentary on the proposed enhancement features, how these will benefit wildlife and how the scheme will be managed and maintained to maximise the opportunities for wildlife over the lifetime of the development. The development thereafter will proceed in accordance with the approved scheme.

REASON

To ensure the development protects and enhances ecology in accordance with the national planning policy framework and EM7 of the Local Plan Part One (November 2012).

1.6 Reporting standards

- 1.6.1 This report was prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Technical Guidance Series 'Guidelines for Ecological Report Writing' and its Code of Professional Conduct.
- 1.6.2 This report was written in compliance with British Standard 42020:2013 'Biodiversity — Code of practice for planning and development'.

2 Preliminary Ecological Appraisal August 2017 - Summary of conservation value of site and recommendations

2.1 Overall value

2.1.1 A summary of assessments of value and the impact of the proposed development site without mitigation, and the residual significant effects following mitigation, is provided in the table below.

Summary of assessment of value and impact

Feature	Level of value	Scale	Unmitigated impact	Confidence level	Mitigated impact
Sites of European importance	-	-	-	-	-
Sites of national importance	-	-	-	-	-
Sites of local importance	Medium	County	Minor Adverse	Probable	Neutral
Habitats	Lower	Parish	Minor Adverse	Probable	Neutral
Veteran trees	Negligible	-	-	-	-
Plants	Negligible	-	-	-	-
Invertebrates	Negligible	-	-	-	-
Amphibians including great crested newts	Negligible	-	-	-	-
Reptiles	Negligible	-	-	-	-
Breeding birds	Lower	Parish	Minor Adverse	Probable	Neutral
Wintering birds	Negligible	-	-	-	-
Dormice	Negligible	-	-	-	-
Aquatic mammals including water voles and otters	Negligible	-	-	-	-
Terrestrial mammals including badgers	Negligible	-	-	-	-
Bats - foraging	Lower	Parish	Minor Adverse	Probable	Neutral
Bats - roosting	Negligible	-	-	-	-

2.1.2 No further detailed surveys were considered necessary following initial survey in 2017.

2.1.3 The overall value of the site was considered to be **Lower** at the **Parish** scale. In the absence of mitigation the impact of the scheme was assessed as **Minor Adverse**, reducing to **Neutral** with recommended mitigation.

2.2 Recommended avoidance measures - 2017

2.2.1 The following impact avoidance measures were recommended.

- All site boundary features, including scrub and trees at the periphery of the site, are to be protected in the built scheme.
- Where possible, trees within the site will be retained in-situ.
- Implementation of a catch ditch along the northern boundary to avoid run-off into an adjacent and parallel ditch which occurs at the boundary of the River Pinn and Manor Farm Pastures (SINC).

2.3 Proposed mitigation for known impacts - 2017

2.3.1 The following mitigation is required to reduce the impacts of the scheme to within acceptable limits.

Habitats

- Ensure that no works come closer than 5m (as a minimum) from retained habitats.
- To mitigate for loss of vegetation, semi-natural planting should include berry-bearing native trees and shrubs to enhance food availability for wildlife. The proposed planting should be structurally diverse, with tree, shrub and ground layers, and areas of dense scrub as well as more open areas.

- Ornamental planting should constitute at least 50% by area of native species or species of known value to wildlife, such as fruiting species and species known to provide a good nectar source. All ornamental planting should be structurally diverse, with tree, shrub and ground layers, and areas of dense planting as well as more open areas.
- Linear habitat should be retained along the site's eastern boundary to maintain a north-south green corridor.
- A minimum 5m buffer between the existing site boundaries, i.e. fences, and newly installed security fencing will allow for hedgerow strengthening after construction and prevent damage to marginal habitat.

Breeding birds

- The reduction in nesting opportunities as a consequence of vegetation removal can be offset by the provision of five bird boxes, which could be erected on retained standard trees elsewhere on site.
- Vegetation removal required for the construction phase should take place outside of the bird breeding season of March to August inclusive, to prevent disturbance to birds, or if removed in that period, only after a survey has shown that no active nests are present.

Bats

- Areas of scrub and trees, and linear features such as hedgerows, should be retained wherever possible throughout the site to allow foraging activity to continue.
- Boundary habitats should not be illuminated, either directly or via light spill from adjacent buildings. If lighting is required for the site boundaries, e.g. for security, it should be reduced to a minimum, and designed in accordance with guidelines from the Bat Conservation Trust.

2.4 Suggested enhancement options - 2017

2.4.1 A range of suggested site enhancement options were provided in the 2017 Preliminary Ecological Appraisal. Enhancement options are not required to achieve a Neutral overall impact but are proposed as an addition to mitigation measures to improve the quality of the site and immediate vicinity for flora and fauna. Not all options proposed would necessarily be required for inclusion in a scheme or achievable once final scheme iterations have been devised.

Habitat enhancement options

- A new wildlife pond could be created in a secluded corner of the site.
- The boundary vegetation should be strengthened by further planting, including berry-bearing species to provide for bird foraging, and native species to attract insects. A structurally diverse range of plants should be used, including shrubs large enough to support nesting birds.
- Permanent wildflower grassland and native scrub habitat should be created along the site boundaries and within areas of open space.
- Structural native trees and shrubs should be planted to provide corridors across the site and a foraging resource for a variety of species.
- Planting on the site should be designed so as to link in to, or add to, surrounding areas of open space.
- Supplementary planting should be used to 'gap up' existing hedgerows and infill any gaps in tree and hedge lines to improve connectivity with the surrounding area. Areas highlighted for planting are the eastern and western site boundaries. Native hedging plants local to the area and suitable for this purpose include Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, dogwood *Cornus sanguinea*, spindle *Euonymus europaeus*, Field Maple *Acer campestre* and Hazel *Corylus avellana*.
- Sustainable Drainage System (SuDS) features should be enhanced using native wetland plants, and trees, shrubs, etc.
- Good practice in hedgerow maintenance should be employed, including cutting alternate sides of hedges on alternate years, which will benefit hedgerow species such as breeding birds, small mammals and bats.

Small-scale species enhancement options

- Three bat boxes (e.g. Schwegler), suitable for a range of bat species, should be erected on retained standard trees or buildings in unlit parts of the site.
- Five bird boxes (e.g. Schwegler), suitable for a range of bird species, should be erected on retained standard trees or buildings in undisturbed parts of the site.
- Three swift boxes should be erected on proposed buildings.
- Up to three habitat piles should be created, using woody cut material (brash) from vegetation clearance. These should be stacked in a quiet, sheltered corner of the site to form piles measuring approximately 5m x 1m x 1m.

3 Mitigation and enhancement for inclusion in consented scheme

3.1 Avoidance measures

- *All site boundary features, including scrub and trees at the periphery of the site, are to be protected in the built scheme*
- *Where possible, trees in interior areas of the site will be retained in-situ*

3.1.1 Existing trees and boundary features have been retained in the proposed scheme with appropriate root protection areas with the exception of an area to the north west where the construction site access would enter the site. Compensatory planting and restoration measures have been proposed and are detailed within the Planting Plan.

- *Implementation of a catch ditch along the northern boundary to avoid run-off into an adjacent and parallel ditch which occurs at the boundary of the River Pinn and Manor Farm Pastures (SINC).*

3.1.2 The implementation of standard best-practice working methods for the suppression of dust and avoidance of run-off from construction sites would be considered adequate measures to address this low potential risk.

3.2 Mitigation

Habitats

- *Ensure that no works come closer than 5m (as a minimum) from retained habitats.*

3.2.1 Appropriate root protection areas have been identified under arboriculturalist advice and are shown in the scheme planting plans

- *To mitigate for loss of vegetation, semi-natural planting should include berry-bearing native trees and shrubs to enhance food availability for wildlife. The proposed planting should be structurally diverse, with tree, shrub and ground layers, and areas of dense scrub as well as more open areas.*
- *Ornamental planting should constitute at least 50% by area of native species or species of known value to wildlife, such as fruiting species and species known to provide a good nectar source. All ornamental planting should be structurally diverse, with tree, shrub and ground layers, and areas of dense planting as well as more open areas.*
- *Linear habitat should be retained along the site's eastern boundary to maintain a north-south green corridor.*

3.2.2 The planting scheme makes extensive use of both native shrubs mixes and ornamental species of known value to wildlife. Species include nectar-producing climbers, such as star jasmine and clematis, 'edible' hedges including cultivars of blackberry, gooseberry and flowering currant which will be of benefit to invertebrates, breeding and foraging birds, foraging bats and small terrestrial mammals.

3.2.3 All boundaries have been enhanced with supplementary planting and the landscape plans are considered to offer habitat enhancement in excess of that suggested as mitigation.

- *A minimum 5m buffer between the existing site boundaries, i.e. fences, and newly installed security fencing will allow for hedgerow strengthening after construction and prevent damage to marginal habitat.*

- 3.2.4 Appropriate root protection areas have been identified by an arboriculturalist and are shown in the scheme planting plans

Breeding birds

- *The reduction in nesting opportunities as a consequence of vegetation removal can be offset by the provision of five bird boxes, which could be erected on retained standard trees elsewhere on site.*

- 3.2.5 It is not considered that the scheme will give rise to a significant or measurable reduction in nesting opportunities as a consequence of vegetation removal and nesting provision will be enhanced in the medium to longer term once proposed vegetation has established.

- 3.2.6 However, short-term enhancement will be provided by the inclusion of 5 No. durable general-purpose nest boxes, suitable for siting on trees, fences or buildings and suitable for a range of species. Indicative locations are provided in Appendix 1.

- 3.2.7 Proposed nest boxes include;

- Vivaro Pro 'Seville' Woodstone nest box (28/32mm)
- Schwegler 1B nest box

Maintenance

- 3.2.8 Recommended boxes are maintenance free and hence no management prescriptions are considered necessary.

- 3.2.9 The proposed nestboxes are durable and will provide nesting opportunities for the medium and longer-term.

3.3 Enhancement measures

Habitats

- 3.3.1 The following habitat enhancement options listed in the 2017 PEA have been included within the landscape design.

- *The boundary vegetation should be strengthened by further planting, including berry-bearing species to provide for bird foraging, and native species to attract insects. A structurally diverse range of plants should be used, including shrubs large enough to support nesting birds.*
- *Permanent wildflower grassland and native scrub habitat should be created along the site boundaries and within areas of open space.*
- *Sustainable Drainage System (SuDS) features should be enhanced using native wetland plants, and trees, shrubs, etc.*
- *Supplementary planting should be used to 'gap up' existing hedgerows and infill any gaps in tree and hedge lines to improve connectivity with the surrounding area. Areas highlighted for planting are the eastern and western site boundaries. Native hedging plants local to the area and suitable for this purpose include Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, dogwood *Cornus sanguinea*, spindle *Euonymus europaeus*, Field Maple *Acer campestre* and Hazel *Corylus avellana*.*

Small-scale species enhancement options

- *Up to three habitat piles should be created, using woody cut material (brash) from vegetation clearance. These should be stacked in a quiet, sheltered corner of the site to form piles measuring approximately 5m x 1m x 1m.*
- 3.3.2 It is anticipated that suitable locations would be identified on site once landscape works have been completed. Locations are not critical to the benefit of the feature however locations should be secluded where unlikely to be disturbed. Indicative locations are provided in Appendix 1.
- *Three bat boxes (e.g. Schwegler), suitable for a range of bat species, should be erected on retained standard trees or buildings in unlit parts of the site.*

3.3.3 Due to the nature of the proposed building and likely difficulty in identifying suitable unlit locations in advance of construction alternative enhancement in the form of one pole mounted bat box is proposed within a quiet corner of the grounds.

3.3.4 Proposed bat boxes include;

- Habibat 'Double Chambered Rocket Box'¹
- Pole mounted Eco Rocket Box²

3.3.5 An indicative location is shown in Appendix 1 and is subject to the presence of buried services and safety considerations in the completed scheme.

Maintenance

3.3.6 Recommended bat boxes are maintenance free and hence no management prescriptions are considered necessary. Any inspections should be undertaken by a licenced bat ecologist.

3.3.7 The proposed bat boxes are durable and will provide roosting opportunities for the short to longer-term and, subject to occupation, would afford educational and enrichment opportunities for students.

3.4 Times during construction when specialist ecologist needs to be present on site to oversee works

3.4.1 Ecological expertise may be required to assist with the precise locating of bat and bird boxes and habitat piles. An ecologist would attend site as required during construction e.g, if suspected bird nest was found within the works area.

3.5 Responsible persons and lines of communication

3.5.1 The client, their developer and their appointed contractors are responsible for all mitigation and enhancement work required including coordinating communication to and from the Local Planning Authority.

3.6 Use of protective fences, exclusion barriers and warning signs

Protective fencing

3.6.1 Ecological protective fencing in addition to that specified within the scheme Arboricultural Impact Assessment is not considered necessary.

Warning signs

3.6.2 No warning signs are considered necessary.

¹ <http://www.habibat.co.uk/category/bat-boxes/habibat-double-chambered-rocket-box>

² <https://www.wildcare.co.uk/pole-mounted-eco-rocket-box.html>

4

Summary and timeline

Pre-construction works (August-February)
Fell all woody vegetation and utilise timber and brash to create habitat piles.
Construction period
ECoW presence if and when required
Post-construction
Erect bird nest boxes
Erect bat rocket box

Appendix 1

