

Construction Ecological Management Plan

Charville Lane Children's Home, 113 Charville Lane, Hayes, London Borough of Hillingdon

A Report To: Bugler Developments Ltd
Report Number: RT-MME-161731-01
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Quality Assurance

Date	Version	Author	Checked by	Approved by
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Declaration of Compliance

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of Practice for Planning and Development". The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Disclaimer

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

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1. Introduction

1.1 Project Background

In December 2023 Bugler Developments Ltd commissioned Middlemarch to produce a Construction Ecological Management Plan (CEcMP) associated with a proposed development at Charville Lane Children's Home, 113 Charville Lane, Hayes, London Borough of Hillingdon.

Middlemarch has previously carried out the following ecological surveys/assessments at the site:

- Preliminary Ecological Appraisal (RT-MME-161166-01; July 2023);
- Preliminary Bat Roost Assessment (RT-MME-161166-02; July 2023); and,
- Dusk Emergence & Dawn Re-entry Bat Surveys (RT-MME-161373; September 2023).

Middlemarch has also been commissioned by Bugler Developments Ltd to complete a Landscape and Ecology Management Plan for the proposed development (report RT-MME-161731-02).

The overall aim of the CEcMP is to minimise the potential impact of the construction phase of the development on the existing ecology of the site, and ensure works proceed in accordance with current wildlife legislation. This report is also required to fulfil Planning Condition 7 associated with the approved planning application, referenced: 26544/APP/2023/2303:

'No development shall take place until the following details of have been submitted to and approved by the Local Planning Authority:

Details of the provision of bat boxes to be erected within the site as habitat enhancement and a site plan showing their location;

- *A Construction Ecological Management Plan (CEMP); and,*
- *A Landscape and Ecology Management Plan (LEMP).*

Thereafter, the development shall be implemented only in accordance with the recommendations detailed in the approved Dusk Emergence & Dawn Re-entry Bat Surveys (Middlemarch, Report Number: RT-MME-161373, Date: September 2023), the Preliminary Ecology Assessment (Middlemarch, Report Number: RT-MME-161166-01, Date: August 2023) and the Preliminary Bat Roost Assessment (Middlemarch, Report Number: RT-MME-161166-02, Date: August 2023) and the approved habitat enhancement, CEMP and LEMP.

Reason:

In order to encourage a wide diversity of wildlife and to manage any impacts on biodiversity and protected species in accordance with Policy DME1 7 of the Hillingdon Local Plan: Part Two - Development Management Policies (2020) and Policy G6 of the London Plan (2021)'.

This report is designed specifically for implementation during the construction phase of the proposed development. The report contains the following information:

- Chapter 2: Assessment of Impacts
- Chapter 3: General Control of Works
- Chapter 4: Avoidance and Mitigation
- Chapter 5: Drawings.

1.2 Site Description and Context

Table 1.1 provides a brief summary of the site and its surroundings.

Attribute	Description
Location	Charville Lane Children's Home, 113 Charville Lane, Hayes, London Borough of Hillingdon
National Grid Reference	TQ 08904 83198
Site Area (ha)	0.31
Topography	Flat
Land Cover (on site)	The site is dominated by the Children's Home building, hardstanding, and amenity grassland. There are also areas of introduced shrub, a defunct hedgerow, and scattered trees.
Land Cover (site surrounds)	The wider landscape is dominated by urban development, as well as parks, sports grounds, agricultural land, and woodland. The A40 road is located 1.3 km north, with RAF Northolt located just beyond it.

Table 1.1: Summary of Site and Surroundings

1.3 Summary of Proposals

The proposals are for the redevelopment of the existing Children's Home to provide a new build residential institution development (Use Class C2). This development will involve the erection of 3 no. two-storey buildings (for accommodation and educational use); hard and soft landscaping, communal and private garden areas and a Multi-Use Games Area.

Documentation made available by the client is listed in Table 1.2.

Document / Drawing Number	Author
Proposed Site Plan, Drawing ref: M10019_APL004_B_Proposed Site Plan, Rev C, August 2023	Hunters
Parking Layout and Notes Revised, Drawing ref: M10019-HUN-ZZ-ZZ-DR-A-03-0001, September 2023	Hunters
Soft Landscape Proposals (Composite), Drawing BUG24485-11, February 2024.	ACD Environmental

Table 1.2: Documentation Provided by Client

2. Assessment of Impacts

2.1 Overview of Construction Activities and Impact Pathways

The following activities are likely to be required during the works:

- Use of site by construction vehicles;
- Use of site by personnel;
- Use of machinery;
- Vegetation clearance and groundworks;
- Use of lighting for work compounds; and,
- Storage of materials on site.

In the absence of mitigation, these activities have the potential to adversely affect ecological features via the following impact pathways:

- Direct loss or damage to habitats scheduled for retention, in the event that areas outside the construction zone are accessed by vehicles, machinery or people;
- Increased noise and/or visual disturbance from vehicles, people, machinery and lighting;
- Air, ground and water (run-off) pollution on and adjacent to the site due to emissions from vehicles and machinery;
- Release of dust from machinery and stored materials; and
- Killing, injury or disturbance to fauna during vegetation clearance and groundworks.

2.2 Summary of Potential Impacts in the Absence of Mitigation

Table 2.1 details the key ecological features identified during baseline surveys (refer to Section 1.1) and assesses the potential for adverse impacts in the absence of mitigation or control measures. Legislation relevant to the ecological features identified is provided in Appendix 1.

Ecological Feature	Source to inform baseline	Potential for Impacts?	Description/Justification
European Statutory Sites			
South West London Waterbodies SPA/Ramsar	PEA (Report RT-MME-161166-01)	No	South West London Waterbodies SPA (Special Protection Area)/Ramsar Site is located 9.6 km south-west of the survey area. Since the proposed development is small in scale and the existing site is already residential and given the large spatial separation and built-up nature of the intervening habitats, it is considered unlikely that the construction or operational phases of the development will impact this conservation site. As such, no further recommendations are made.

Table 2.1: Summary of Potential Impacts on Ecological Features from Proposed Works (cont.)

Ecological Feature	Source to inform baseline	Potential for Impacts?	Description/Justification
UK Statutory Sites			
Fray's Farm Meadows SSSI	PEA report	No	The site is within an impact risk zone of Fray's Farm Meadows Site of Special Scientific Interest (SSSI). Reference to Natural England's SSSI Impact Risk Tool indicates that development proposals relating to aviation, livestock and poultry units, and large combustion processes within this impact risk zone pose a potential risk to this designated site. The type of development proposed does not fall within any of these categories and as such adverse impacts on this SSSI are considered unlikely and no further recommendations are made.
Yeading Brook Meadows LNR, Yeading Woods (inc. Gutteridge Wood) LNR, Ten Acre Woods and Meadows LNR	PEA report	No	These Local Nature Reserves (LNRs) are located within a 2 km radius of the site. Residential developments may have the potential to increase recreational impacts on these LNRs. However, given the built-up nature of the surrounding landscape and the low number of new residential units proposed, recreational impacts are likely to be negligible. Overall, given the nature and scale of the proposals, the development is highly unlikely to impact these designated sites, which are well-removed from the site.
Non-statutory Nature Conservation Sites			
Yeading Brook Meadows SINC, Home Covert, Lowdham Field and Pole Hill Open Space SINC, Hayes Shrub SINC	PEA report	No	These Sites of Importance for Nature Conservation (SINCs) are all located within 200-250 m from the site at their closest points, with the intervening habitats being predominantly semi-natural, including hedgerows and woodland. Despite this connectivity, the proposed development proposals will be predominantly confined to existing areas of hard landscaping and amenity grassland, while almost all the existing trees and most of the hedgerow will be retained. Furthermore, new tree and hedgerow planting will also be provided, creating a net increase in these habitats on site. Therefore, given the nature and small scale of the proposals (on an already residential site), the development is unlikely to negatively impact any of the nearby SINCs. Nonetheless, pollution prevention measures are included below in order to protect habitats on site and within surrounding areas (including the SINCs).
Habitats			
Hedgerow and scattered trees	PEA report	Yes	Almost all the scattered trees (excluding one small cherry <i>Prunus</i> sp. tree in the centre of the site), along with most of the hedgerow, will be retained. However, without appropriate mitigation, trees and sections of hedgerow could be subject to habitat loss or damage during any activity within root protection areas.

Table 2.1: Summary of Potential Impacts on Ecological Features from Proposed Works (cont.)

Ecological Feature	Source to inform baseline	Potential for Impacts?	Description/Justification
Species			
Herpetofauna	PEA report	Yes	The works will predominantly be confined to areas of existing short-mown amenity grassland and hard landscaping. Nonetheless, there is a low risk of killing/injuring common amphibians during any clearance of habitats providing shelter (i.e., introduced shrub or the hedgerow).
Bats	PRA report (RT-MME-161166-02) and Dusk/Dawn bat surveys report (RT-MME-161373)	Yes	The dusk and dawn bat surveys (RT-MME-161373) of the building identified no roosting bats on site and only minimal foraging and commuting activity. However, the proposals will result in the loss of a single small cherry tree in the centre of the site, which, in the absence of appropriate mitigation and precautionary working practices, has a low chance of impacting roosting bats. The proposals will result in the minor loss of suitable bat foraging and commuting habitat (including the loss of one small tree and partial loss of the hedgerow). However, given that the majority of suitable tree/hedgerow habitat will be retained, and given the well-lit nature of the existing site (including lighting on the building adjacent to the existing hedgerow) and the minimal bat activity recorded during the dusk and dawn bat surveys, the proposals are unlikely to have major detrimental impacts on foraging and commuting bats. However, there remains some potential for habitat degradation from lighting, and an associated recommendation is included below.
Birds	PEA report	Yes	Minor loss of nesting and foraging habitat; killing or injury during vegetation clearance / building demolition.
Terrestrial mammals (badger and hedgehog)	PEA report	Yes	Minor loss of suitable foraging and refuge habitat for terrestrial mammals (including badger <i>Meles meles</i> and hedgehog <i>Erinaceus europaeus</i>); killing or injury during vegetation clearance and groundworks.
Stag beetle	PEA report	Yes	Killing or injury of stag beetle <i>Lucanus cervus</i> in larval/adult phase during construction phase, and loss of dead wood habitat.
Other invertebrate species	PEA report	Yes	Small-scale loss of suitable habitats for invertebrates such as garden tiger moth <i>Arctia caja</i> (a Species of Principal Importance), which feeds on a variety of garden plants, albeit such impacts are likely to be minor given that the site is dominated by mown grassland, the building and hardstanding. Measures to enhance the value of the site for invertebrates are included within the Landscape and Ecology Management Plan (RT-MME-161731-02).

Table 2.1: Summary of Potential Impacts on Ecological Features from Proposed Works (cont.)

Ecological Feature	Source to inform baseline	Potential for Impacts?	Description/Justification
Species (continued)			
Other species (dormouse, aquatic mammals, aquatic invertebrates, polecat, pine marten, red squirrel, reptiles and white-clawed crayfish)	PEA report	No	Species/species groups scoped out due to the lack of desk study records and absence of suitable habitats within the development site and its surroundings.
Invasive Species			
Japanese knotweed and cherry laurel	PEA report	Yes	<p>Japanese knotweed <i>Fallopia japonica</i> was recorded during the field survey, which is included on Schedule 9 of Wildlife and Countryside Act 1981 (as amended) and on the London Invasive Species Initiative (LISI). Cherry laurel <i>Prunus laurocerasus</i> was also found on site, which is included on the LISI.</p> <p>The proposed development could result in the disturbance or spread of invasive plant species (including Japanese knotweed and cherry laurel). The spread of non-native invasive species can result in a reduction in biodiversity as native species are outcompeted.</p>

Table 2.1: Summary of Potential Impacts on Ecological Features from Proposed Works (cont.)

Control measures to prevent and manage potentially adverse impacts on ecological features during the construction phase of the development are provided in Chapters 3 and 4.

3. General Control of Works

This section of the report provides information with respect to the methods that will be implemented during the construction phase, in order to ensure the protection of ecologically sensitive habitats within the site and to prevent significant adverse impacts on any protected/notable species present.

3.1 Ecological Management Team

The overall responsibility for ensuring construction works proceed in accordance with the CEcMP will lie with Bugler Developments Ltd.

Bugler Developments Ltd will appoint an Ecological Manager. The responsibilities of the Ecological Manager will include developing method statements and site protocols as required, providing guidance for the site team in dealing with ecological matters, and liaising with contractors/sub-contractors and any statutory or third party with an ecological interest in the scheme. The Ecological Manager will ensure that all site personnel are appropriately briefed on the ecological issues within the site. This will be undertaken through inclusion of ecological briefings within the 'toolbox' talks given to all staff as part of the site induction process.

A suitably qualified Ecological Clerk of Works will be appointed by Bugler Developments Ltd to advise and oversee construction activities where appropriate and ensure the site team and sub-contractors comply with site protocols and control/mitigation measures. Any failings will be reported to the Project Manager immediately, who will be responsible for ensuring that remedial action is implemented.

The Ecological Clerk of Works will be responsible to the Ecological Manager and will approve all method statements, in addition to ensuring that any relevant site ecological protocols are appended and that these controls are adhered to.

The ecological management team for this project is summarised in Table 3.1.

Role	Persons Responsible
Project Manager / Site Manager	Bugler Developments Ltd
Ecological Manager	Middlemarch
Ecological Clerk of Works	Middlemarch

Table 3.1: Ecological Management Team

3.2 Identification of Biodiversity Protection Zones

In order to categorise the site according to ecological risk and to identify areas where certain construction activities are prohibited or restricted, a traffic light system will be implemented. The site has been divided into Red, Amber and Green Zones, with Red Zones being those areas of highest biodiversity interest and of greatest risk from construction.

Habitats and ecological features identified within the site during the Preliminary Ecological Appraisal (RT-MME-161166-01) are shown on Drawing C161166-01-01 in Chapter 5. The areas of the site falling into each of the Biodiversity Protection Zones are detailed below and are shown on Drawing C161731-01-01 in Chapter 5.

Red Zones / Features

Red Zones are defined as the most ecologically sensitive parts of the development site, or the areas most vulnerable to ecological damage. The following features on site are included in this category:

- Scattered trees to be retained.

Red Zones are the areas that will be retained and protected throughout the development, and works will be subject to ongoing monitoring by the Ecological Clerk of the Works. No works can be undertaken within the Red Zones without prior consent from the Ecological Manager. Measures that will be implemented to ensure that Red Zones are protected are summarised in Chapter 4.

Amber Zones / Features

Amber Zones are defined as areas of moderate to high ecological value that may be subject to direct or indirect impacts as a result of the proposed development. The following features on site are included in this category:

- Cherry tree to be felled;
- Hedgerow;
- Introduced shrub;
- Tree stump;
- Section of amenity grassland in the southwestern corner of the site which is proposed for retention and enhancement as per the Landscape and Ecology Management Plan; RT-MME-161731-02; and,
- Japanese knotweed and surrounding 7 m (rhizome spread zone).

Any works impacting upon Amber Zones will be subject to control measures (see Chapter 4) and will be undertaken under the supervision or guidance of the Ecological Clerk of Works. Once works within the Amber Zones have been completed, the Ecological Clerk of Works may downgrade these areas to Green Zones.

All works within Amber Zones will proceed with caution and will be subject to regular monitoring by the Ecological Clerk of Works. Specific mitigation and control proposals that will be implemented to minimise the ecological impact of work in Amber Zones are detailed in Chapter 4.

Green Zones / Features

Green Zones are areas identified as having low ecological interest where breaches of wildlife legislation are unlikely to occur. They are of low intrinsic value, and do not offer any key habitat for notable or protected species.

Works within Green Zones are permitted to proceed without supervision by the Ecological Clerk of Works, provided that ecological best practice is adhered to at all times. Should any ecological issues be identified, works will cease and the Ecological Clerk of Works will be contacted for advice.

3.3 Quality Control

Site Inductions / Toolbox Talks

All personnel on site will receive a site induction prior to commencing any work activities. The site induction will highlight key issues, operations, times of year and areas in relation to ecology. The induction will include:

- Awareness of the Biodiversity Protection Zones Map (see C161731-01-01 in Chapter 5);
- Site activity method statements;
- Reporting hierarchy; and,
- Permit system.

Ecological Permits

Ecological Permits will be required for working in Red or Amber Zones. These will be valid for specific time periods and will be renewed at least once a month.

Ecological Certificates

Once an activity has been completed or work in a designated area is finished, a certificate will be signed by the Ecological Manager to confirm it has been carried out to an acceptable standard.

Rectification Notices

Rectification notices will be issued by the Ecological Clerk of Works to the Site Manager or a representative of the site team for implementation of action required. These will be signed on completion by the site manager, or a representative of the site team and counter signed by the Ecological Manager or Clerk of Works.

Daily Record Sheets

The Ecological Clerk of Works will record activities and observations onto a record sheet during visits to the site.

Progress Report

The Ecological Manager will produce a monthly report based on the record sheets, highlighting any issues raised during the programme. The report will include copies of:

- Ecological Permits;
- Ecological Certificates; and,
- Rectification Notices.

Examples of permits, certificates and notices can be provided from Middlemarch upon request.

Revisions to Scheme

Should the need to amend any details of the scheme arise, such as the proposed methods of working or the extent of the works, the proposed changes will be approved in writing by the Ecological Clerk of Works prior to implementation, and also by the Local Planning Authority if required.

4. Avoidance and Mitigation

4.1 Use of Protective Fencing/Barriers

To ensure habitats outside of the works footprint are not adversely impacted, the following protective fencing/barriers are required:

- The retained trees and the retained sections of hedgerow will be protected using heras fencing or other methods appropriate to safeguard the root protection areas from activities such as excavation or compaction, while protection measures will be in accordance with British Standard 5837: 2012 "Trees in relation to design, demolition and construction - recommendations", or as otherwise advised by a suitably qualified arboriculturalist.
- Fencing will be required to demarcate an exclusion zone around the visible Japanese knotweed growth (see Section 4.9 for more information).
- The section of amenity grassland in the southwestern corner of the site, which is proposed for retention and enhancement as per the Landscape and Ecology Management Plan (RT-MME-161731-02), will be protected using heras fencing to ensure this area remains undisturbed, and to prevent the encroachment of development activities, or storage of materials, within in this area.

4.2 Site Compound and Storage of Materials

No storage of materials will be permitted within the Root Protection Areas of the retained trees or hedgerow. Site compounds/material storage areas will be located within habitats of low or negligible ecological value (ideally within hardstanding or cleared areas). The exact location of these areas will be agreed with the Ecological Clerk of Works.

Avoid storing materials on site for long periods of time or creating large, temporary brash piles during the vegetation clearance. If any stored materials are left in situ for long periods of time, then they will be carefully dismantled by hand, to ensure that any species that have taken shelter here (e.g., hedgehogs or amphibians) are not harmed.

4.3 Pollution Prevention

The pollution prevention measures below are included to protect habitats on site and within surrounding areas (including the SINCs).

Environment Agency Pollution Prevention Guidelines were formerly withdrawn in December 2015, although do provide a useful framework for the design of working practices. Guidance on Pollution Prevention for Businesses is provided by Defra and the Environment Agency (2019)¹. These guidelines include details for the design of working practices to avoid pollution during construction and should be followed throughout the construction period.

No bulk storage of fuel and other liquids will be permitted on site. Fuels and other liquids which must be stored on site will be kept in bunded containers within habitats of negligible value including hardstanding or cleared areas. Spill kits will be available on site and procedures will be in place to deal with any incidents efficiently and quickly. Works such as the use of concrete/cement mixers

¹ Department for Environment, Food and Rural Affairs and Environment Agency (2019). *Guidance. Pollution prevention for businesses*. Available at: <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

will be controlled to ensure all wastewater is intercepted and removed from site. Refuelling of plant/machinery on site should be avoided. If refuelling is required, then it should be undertaken as far as possible from notable habitats (including the hedgerow and trees), over a drip tray.

Materials, waste, and any welfare facilities will be stored within the area demarked for construction, outside the root protection areas of the trees and hedgerow and the retained area of grassland.

Appropriate dust suppression measures will be put in place to reduce impacts to habitats and species outside of the works area. The 'Construction Dust Information Sheet' issued by the Health and Safety Executive (2020)² provides guidance on controlling construction dust and will be followed throughout the construction period.

4.4 Lighting

It is not anticipated that working at night would be necessary. However, if any security lighting or lighting at night is required, then it will be low level and directional, ensuring that there is no increase in illumination of trees or the hedgerow. Measures to minimise the detrimental impacts of lighting resulting from the operational phase of the development are included with the Dusk Emergence & Dawn Re-entry Bat Surveys report (RT-MME-161373).

4.5 Noise and Vibration

Reasonable measures will be taken to avoid significant increases in noise and vibration during the construction phase of the development. Any construction works on site will be carried out in accordance with British Standard 5228:2009 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' (British Standards Institution, 2009)³.

Engines of construction vehicles will be turned off when these vehicles are stationary to minimise noise and vibration disturbance.

4.6 Fire Prevention

During construction, fires will not be permitted on the site and the work force will be made aware of the risks of accidental fires on surrounding retained habitats.

4.7 Mitigation Measures for Notable Habitats

Almost all the scattered trees (excluding one small cherry tree in the centre of the site) and most of the hedgerow will be retained under the proposals. The retained sections of the hedgerow and the retained trees on and overhanging the site should be protected according to the measures outlined in Section 4.1. Where construction works require the loss, damage or management of these habitats, these works will need to be undertaken in accordance with specific species mitigation strategies outlined below.

While the retained amenity grassland on site (within the south-western corner) does not form a notable habitat, this will be protected in line with Section 4.1 above. This will ensure the habitat

² Health and Safety Executive (2020) *Construction Dust – Construction Information Sheet No 36 (Revision 3)*. March 2020.

³ British Standards Institution (2009) *BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites*.

remains undamaged, to avoid any need for later remediation when the habitat is retained and enhanced as part of the long-term proposals.

4.8 Mitigation Measures for Protected and Notable Species

Herpetofauna

Any clearance of habitats (hedgerow and introduced shrub) providing potential shelter for common amphibian species should be undertaken with care to avoid harming amphibians. Any amphibians encountered should be translocated to suitable retained habitat (such as the retained areas of the hedgerow). Amphibians will use stacked materials such as wood, stone, boards and metal sheets as refuges. To avoid the creation of potential refuges during the construction phase, active works areas will be kept tidy, and materials will be stored on areas of hardstanding and off the ground – for example on pallets where possible. Further, the retained grassland on site (within the southwestern corner) should be well-managed (to < 5 cm) over the course of the development in order to prevent this area from becoming suitable for herpetofauna. This will prevent any danger to herpetofauna when future enhancement works (such as scarifying) commence (as per the Landscape and Ecology Management Plan: RT-MME-161731-02).

Bats

Roosting Bats

A Preliminary Bat Roost assessment of the existing building was undertaken at the site in 2023 (RT-MME-161166-02). This identified the need for dusk emergence and dawn re-entry surveys, which recorded no evidence of roosting bats within the building (RT-MME-161373). However, a small, semi-mature cherry tree has now also been identified for removal, while specific bat surveys of this tree have not been undertaken. Incidentally, this tree was observed during the Preliminary Ecological Appraisal (RT-MME-161166-01) to contain a small area of peeling bark low down on the trunk which may be suitable for roosting bats. However, given the limited extent of the peeling bark, the isolation of the tree from other vegetation, and the abundance of artificial lighting surrounding the tree, the peeling bark is classed as a 'PRF-I' under the current good practice guidelines for bat surveys (Collins, 2023)⁴. This means the potential roost feature is suitable, at most, only for individual bats or a very small number of bats. Otherwise, the tree in question appeared to be in good health with no further visible suitable features for roosting bats. Furthermore, given the location of this tree immediately north of the building, this tree was visible during the two dusk emergence surveys undertaken in 2023, during which no bat sightings were recorded in proximity to the tree (or indeed anywhere north of the building), indicating that the tree does not currently support roosting bats. However, a further inspection by a suitably qualified ecologist is required to confirm the status of the tree in relation to roosting bats immediately prior to felling. The peeling bark (which is easily accessible from ground level or using a 3.5 m ladder) should be thoroughly inspected using a torch, and where appropriate, an endoscope, to confirm if bats are present. The tree should also be observed in full to confirm if any further potential roost features have developed. If the tree is confirmed not to contain roosting bats, it should be felled immediately. However, if evidence of roosting bats, or inaccessible potential roost features are observed, the tree must be left in situ and further survey work and/or a licence application will be required.

⁴ Collins, J. (ed). (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Ed.)*. The Bat Conservation Trust, London.

In the long term, the development proposals will significantly enhance the value of the site for roosting bats through the provision of bat bricks/boxes, as described within the Landscape and Ecology Management Plan (RT-MME-161731-02).

Foraging and commuting bats

In order to reduce the impact of the works on foraging and commuting bats, the following mitigation measures will be implemented:

- The sections of hedgerow and trees scheduled for retention will be protected according to measures outlined in Section 4.1.
- Construction phase lighting, noise and vibration will be kept to a minimum, in line with the measures outlined in Sections 4.4 and 4.5.

Birds

In order to avoid any breach of legislation with regard to nesting birds in general, the following measures will be implemented:

- Clearance of any suitable vegetation for nesting birds (hedgerow, introduced shrub or trees) and demolition of the existing building should be undertaken outside of the bird nesting season. The bird nesting season is weather dependent but generally extends between March and September inclusive (peak period March-August). If this is not possible, then any suitable nesting vegetation to be removed or disturbed or the building to be demolished will be checked by an experienced ecologist for nesting birds immediately prior to works commencing. If birds are found to be nesting, any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.
- The sections of hedgerow and trees scheduled for retention will be protected according to the measures outlined in Section 4.1.
- Noise and vibration will be kept to a minimum, in line with the measures outlined in Section 4.5.

Terrestrial mammals (badger, hedgehog)

It is possible that badger and hedgehog may commute through the site between offsite habitats or use the amenity grassland and hedgerow on site for foraging, while hedgehog may also use the introduced shrub and hedgerow as refugia. The proposals include extensive retained/newly created habitat suitable for terrestrial mammals, while additional mitigation measures include the following:

- **Cover excavations and pipework:** any excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape. Any open pipework with an outside diameter of greater than 120 mm must be covered at the end of each workday to prevent animals entering/becoming trapped.
- **Sensitive clearance of potential refugia for hedgehog:** Any hedgerow or introduced shrub clearance should be undertaken with care using the same approach as that described above in relation to herpetofauna, allowing hedgehog, if present, to disperse to suitable habitat. These habitats are unlikely to form suitable hibernation habitat for hedgehog given the limited, isolated nature of associated undergrowth. However, in the unlikely event that a potentially hibernating hedgehog is identified, a suitability qualified ecologist should be contacted to assist with the safe relocation of the hedgehog to nearby

suitable hibernation habitat. Hedgehogs usually hibernate between October/November to March/April.

Stag beetle

A tree stump, providing potential larval habitat for stag beetle, was recorded on site during the Preliminary Ecological Appraisal. This feature will be relocated to a suitable undisturbed location in the northeastern corner of the site. This operation will be undertaken with care under the supervision of an experienced ecologist. Any stag beetles encountered (including adults or larvae) during the process should be translocated to similar deadwood habitat nearby, ideally to the relocated tree stump itself.

Other invertebrate species

Small-scale loss of suitable habitats for invertebrates such as garden tiger moth will be compensated for by the proposed habitat creation and enhancement measures included within the Landscape and Ecology Management Plan (RT-MME-161731-02). In addition, the trees and sections of hedgerow scheduled for retention, which provide suitable habitat for a number of invertebrate species, will be protected in line with Section 4.1.

4.9 Control Measures for Non-Native Invasive Plant Species

Japanese Knotweed Method Statement

Introduction

The Invasive Non-native Species Association guidelines 'Code of Practice for Managing Japanese Knotweed' (INNSA, 2017 as amended) and the Property Care Association 'Code of Practice for the Management of Japanese Knotweed' (PCA 2018) detail several options for the control of Japanese knotweed. The recognition and early (appropriate) management of Japanese knotweed will reduce the risk of excessive cost, potential prosecution and prevent physical damage to buildings and hard surfaces.

The following sections detail recommended treatment and methodology for dealing with Japanese knotweed at this site. However, a specialist Japanese knotweed contractor must be enlisted to establish the final methodology and complete the eradication exercise.

Works in Japanese Knotweed Contaminated Area

In order to facilitate works on site, the following conditions will be adhered to:

- To guard against the accidental spread of knotweed, fencing will be erected around the visible knotweed growth area, including a 7 m exclusion zone (within onsite areas) called a rhizome spread zone (RSZ). All soils material within the RSZ will be treated as contaminated. All site operatives will be made aware of the requirements associated with the removal/disposal of this species in order to avoid accidental spread.
- Use of plant machinery and vehicles will not be permitted until areas polluted with Japanese knotweed have been cleared and/or identified and cordoned off. If vehicles are to be used in areas where Japanese knotweed is known to be present, a strong geotextile or polythene sheeting is to be used, overlain with hardcore as a base for vehicles to travel on, if no existing roadways are present.
- One application of non-persistent herbicide will be performed to reduce the vigour of infective Japanese knotweed material. The most effective time to apply the herbicide is

from May until the first frosts cause leaf fall. The plant will be treated at least 3 weeks prior to any excavation and laying of geotextile.

When within 7 m of the stand of Japanese knotweed, the following procedure will be adopted:

- Only essential vehicles and plant machinery will be present in areas polluted with Japanese Knotweed. Care will be taken to ensure that polluted material is not dropped or transferred to other areas of the site.
- On leaving areas of the site known to contain Japanese knotweed, any machinery that has been used will be thoroughly cleaned within a designated area. All hand tools and footwear will be cleaned off in a similar manner.
- Watching brief (Site Supervisor/Clerk of Works) will be provided to oversee others in undertaking site clearance/construction works within the RSZ to ensure Japanese knotweed contamination is not spread from the area.

Japanese Knotweed Adjacent to Buildings

A stand of Japanese knotweed on site was recorded immediately south of the existing building. Therefore, extra care will be required in order to prevent the spread of Japanese knotweed contaminated material in this area. This is likely to involve the eradication of Japanese knotweed from all excavatable areas (using the methods described below), followed by careful building demolition works within the 7 m RSZ, with building material thoroughly inspected for Japanese knotweed material and/or disposed of as contaminated waste (as per the dig and offsite disposal methodology described below) or treated with herbicide.

Treatment of Japanese Knotweed Material

Arising from within the RSZ which is found to be contaminated with Japanese knotweed will be dealt with in a number of ways depending on the preferences of the engineering team. These are discussed and evaluated below.

Dig and Off-Site Disposal

The dig and off-site disposal programme of works provides an instant rectification method with no long-term problem for the developer and landowner. However, the trade-off is that this method is more expensive than any other treatment method. Historically the client would have been able to obtain landfill tax exemption for knotweed waste. However, in line with the UK Government's push to reduce the amount of waste that is sent to landfill, the exemption scheme has been dropped with a target of a reduction in the amount of construction, demolition, and excavation waste (including Japanese knotweed) going to landfill.

The Japanese knotweed is fully excavated to remove all material (all rhizomes). The excavation process is monitored by site supervisor(s) who not only ensure that all the knotweed is removed (via visual identification), but that only soils contaminated with knotweed are removed (i.e. see 'Reducing Disposal Volumes and Spread from Adjacent Areas' below).

All knotweed material and knotweed contaminated arising from these works is removed from site as controlled waste. This requires removal via registered waste carriers to a landfill site fully licensed to receive and dispose of Japanese knotweed. There will be a full waste tracking record on completion.

Dig and Relocation

The Japanese knotweed is excavated either fully or to a reduced level and the arising knotweed waste is relocated to another area of the site. Relocation is normally carried out by loading the knotweed to dump trucks and transporting over site on a controlled haul route to a designated low-risk location.

At the relocation point, the knotweed is either; Stockpiled, Bunded or resides at ground level via a Cut and Fill procedure. The Cut and Fill procedure has the benefit of not producing a bund or stockpile of knotweed on site and providing back fill to the void created via the excavation of the Japanese knotweed. However, the dig and relocation method is not frequently used on small sites or domestic settings and is usually more suited to large, phased developments with ample space for storage. This method is therefore unlikely to be suited to the current development site.

Cell-Burial

The Japanese knotweed is excavated either fully or to a reduced level and capped (see 'Dig and Cap' below). The excavated knotweed material is then buried on site in a suitable location.

In order to bury the material on site, without depositing at a depth of 5 m, it needs to be carried out as a cell-burial: The knotweed material is buried so it is encapsulated in knotweed root barrier (the cell) with the top of the cell residing below finished ground levels.

Recording the position of the burial area on a site drawing helps to prevent potential future disturbance of these locations.

The additional benefit of this method is that disposing of the excavated knotweed on site is a sustainable option for which Land Remediation Tax Relief (LRTR) can be claimed. LRTR can provide a 150% tax relief to help fund remediation costs. Relief on up to 10% of eligible costs for a developer and 30% for capital expenditure assuming a 20% tax rate.

While being cost-effective, the cell-burial method requires a suitable space to support a large pit and therefore the relatively small size of the site reduces the likelihood that this method would be suitable.

Reducing Disposal Volumes and Spread from Adjacent Areas

There are several methods available to the client to reduce disposal volumes, and thus costs associated with Japanese knotweed treatment. It may be that knotweed rhizome transverse the boundary of the site/knotweed is in neighbouring property in close proximity to the site boundary. In particular, given the presence of Japanese knotweed adjacent to the northern and eastern site boundaries, it is possible that knotweed grows in adjacent property. Therefore, as a precaution, the option of a root barrier vertically at sections of the site boundary is discussed (see Root Barrier Control).

Watching Brief (Supervision)

The guidelines recommend reducing the amount of contaminated material excavated from a site through excavation under supervision by an appropriately qualified ecological clerk of works. This method generally reduces the volume of arisings to some 50 – 90% of the generic excavation guidelines, whilst not limiting a particular excavation to any assumed depth or lateral width. The following guidance will be adhered to:

- Wherever possible, dig from inside the contaminated area to the visible edges, and in depth, only as far as knotweed rhizomes are visible.
- When an area or section appears to be clean, a careful search of the surface is carried out by skilled personnel. If no rhizomes are perceived, a further approximately 100 mm layer is removed and examined and treated as controlled waste.
- If no more knotweed is found, a further 200 – 300 mm of material is loosened and searched. If on this third check, no rhizome is found, material is left in site.
- To avoid spread of contaminated material during excavations, tracks and wheels of machines are cleaned before moving off area. Care is taken in moving/storing and transporting knotweed to the receptor area or disposal vehicle and the journey will be supervised by a Clerk of Works.
- Prior to excavation, formation of any proposed works to be determined and any location of service runs that may be deeper than formation level. Location and height of fill of controlled waste material is positioned to avoid service runs and to maintain a minimum depth of 500 mm below formation level.

Dig and Cap

As with the Dig and Disposal method, the knotweed is accurately excavated, but only down to a depth required by the development or end use of the site. On a development site this will often mean excavation of the knotweed to construction formation levels only. The remaining knotweed contaminated ground (beneath the excavation depth) will then be capped off with a Japanese knotweed root barrier to prevent re-emergence of the knotweed from underneath. Root barriers are introduced to separate knotweed contaminated ground from clean or imported clean ground or to protect new services/structures/hardstanding and further detail is provided below.

The arising knotweed and knotweed contaminated material can either be removed from site as controlled waste (as per 'Dig and Off Site Disposal') or disposed/treated on site (e.g. as per 'Cell-Burial'), as detailed in 'Treatment of Japanese Knotweed Material' above.

Dig and Sift

The Japanese knotweed is excavated either fully or to a reduced level. The excavated spoil is then passed through a mechanical screener. This is a specialised method which involves the soils containing the plant being sifted with large knotweed material separated out and removed thus reducing disposal volumes. The plant material passing through the mechanical processor is fragmented and crushed, which results in those fragments having a vastly reduced regenerative power. The sifted spoil can often be reused onsite as backfill subject to local Environment Agency Officer approval.

Root Barrier Control

Where knotweed exists either onsite or off-site and is to remain in-situ, its spread can be controlled by the insertion of vertical root barrier. Knotweed root barrier can deflect knotweed rhizome growth and prevent the spread of the plant under the ground. These root barriers can be inserted to protect structures and services and have a life span of at least 50 years.

Where knotweed exists off-site in close proximity to the site, the insertion of root barrier to the boundary can help protect the site from rhizome encroachment. But this control should always be supplemented by a herbicide treatment programme wherever possible (see 'Follow Up Treatment and Post Development Monitoring' below).

Follow Up Treatment and Post Development Monitoring

During and/or post completion of the development works, monitoring works should be undertaken to identify any knotweed remaining onsite (original position or relocation area). This should be treated under a herbicide application programme to control the plant and aim at achieving eradication. Spraying will be carried out during the growing season (April to October), when there is green, leafy material present. For treatment in this instance, it is recommended to use a specialist contractor.

Chemical control usually takes a minimum of two years to totally eradicate Japanese knotweed. Rhizome and seeds can remain dormant for a considerable period. Accordingly, an inspection of the site will be conducted to determine invasive plant regrowth, and to ensure that all areas of regrowth are sprayed.

Environment Agency guidelines indicate that Japanese knotweed treatment must be considered to be ineffective until no further regrowth occurs during the growing season. All identified areas must still be regarded as active until the specialist contractor confirms that the plants have been successfully eradicated.

Constraints

A proportion of the Japanese knotweed RSZ coincides with the retained hedgerow, while a number of trees occur within the wider site. Therefore, the contractors should confirm that the herbicides they use are selective and will not affect nearby trees and hedgerows. It is also possible that a small proportion of the eastern site boundary hedgerow may be damaged/lost as a result of necessary excavation works. If so, this should be compensated for by replacement planting of matching species (Hawthorn *Crataegus monogyna* or Hazel *Corylus avellana*) following the completion of the Japanese knotweed eradication exercise. New planting would then be managed in line with the wider hedgerow planting on site, as detailed within the Landscape and Ecology Management Plan (RT-MME-161731-01).

Control of other LSI Species

The works must not cause cherry laurel to spread in the wild. This species must either be left in situ or removed with care and disposed of in an appropriate manner. For example, it is good practice (albeit not legally binding) to remove this species to a licenced controlled waste facility.

4.10 Timing Restrictions

Table 4.1 details a master timetable of works constrained by timing restrictions in order to minimise the ecological impact of the works within Amber Zones.

Protected Species	Time of Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>Building demolition</i>												
Nesting birds	✓	✓	*	*	*	*	*	*	*	✓	✓	✓
<i>Hedgerow and introduced shrub clearance</i>												
Herpetofauna	*	*	*	*	*	*	*	*	*	*	*	*
Nesting birds	✓	✓	*	*	*	*	*	*	*	✓	✓	✓
Hedgehog	*	*	*	*	*	*	*	*	*	*	*	*
<i>Relocation of tree stump</i>												
Stag Beetle	*	*	*	*	*	*	*	*	*	*	*	*
Key: ✓ Suitable time for activity to be undertaken (subject to approval from Ecological Clerk of Works) * Possible time for activity to be undertaken. All vegetation clearance must proceed in accordance with methodologies detailed in Section 4.8.												

Table 4.1: Master Timetable of Timing Restricted Work Activities

4.11 Contingency Measures

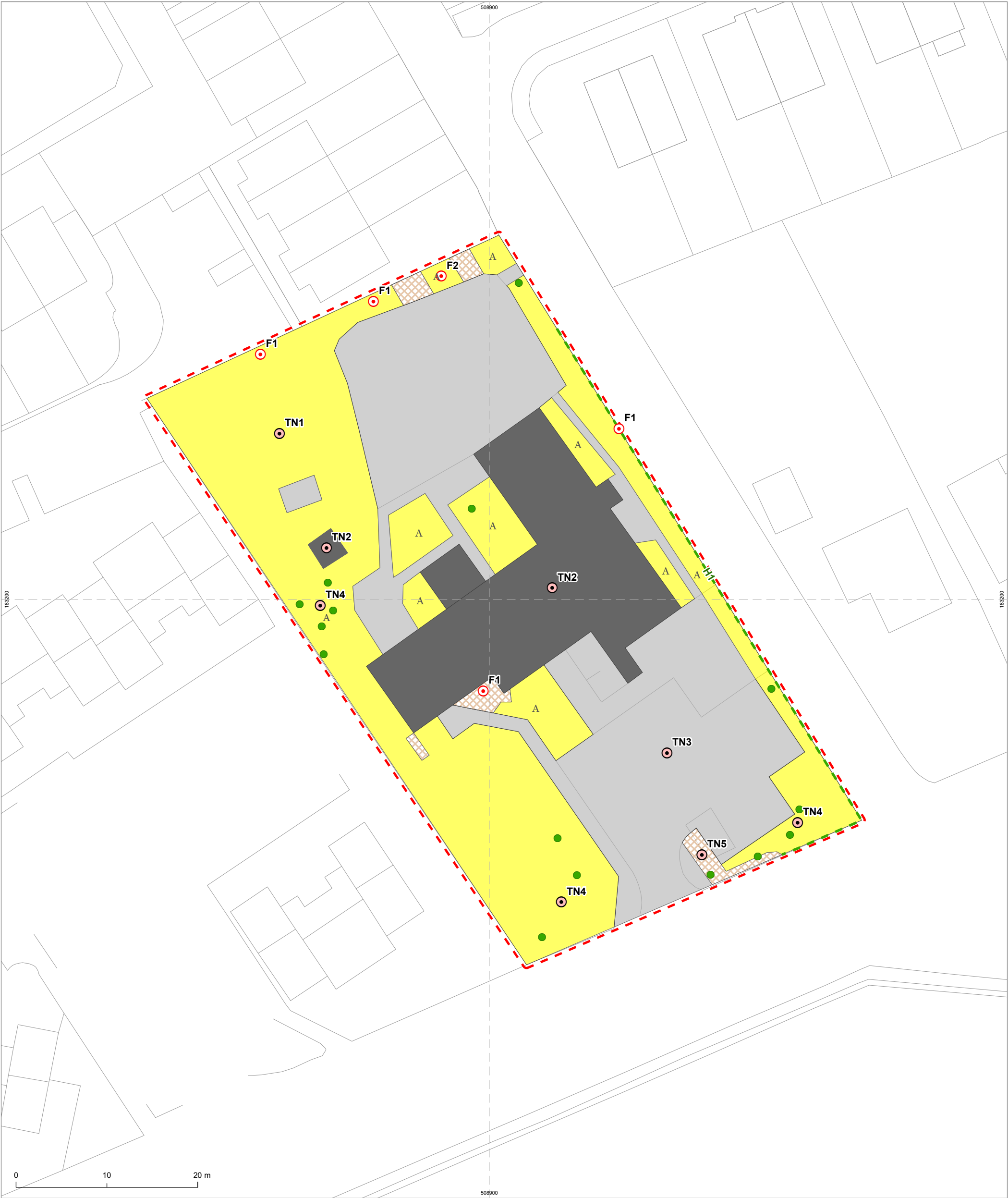
Should any unexpected events occur, e.g. the discovery of unexpected species on site, work will cease, and the Ecological Manager / Clerk of Works will be contacted to determine the most appropriate way to proceed.

5. Drawings

Drawing C161166-01-01 – Phase 1 Habitat Map (Middlemarch)


Drawing C161731-01-01 – Biodiversity Protection Zones (Middlemarch)

Drawing BUG24485-11 – Soft Landscape Proposals, Composite (ACD Environmental)



Legend

- Survey area
- Scattered tree
- Species-poor defunct hedgerow
- Amenity grassland
- Building
- Hardstanding
- Introduced shrub
- Target note (habitat)
- Target note (feature)
F1 Japanese knotweed
F2 Tree stump

Project	Charville Lane Children's Home, 113 Charville Lane, Hayes, London Borough of Hillingdon		
Drawing	Phase 1 Habitat Map		
Client	Hunt Architects		
Drawing Number	C161166-01-01	Revision	00
Scale @ A3	1:400	Date	July 2023
Approved By	HS	Drawn By	VO
<div><div></div><div>MIDDLEMARCH</div></div> <p>Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ T:01676 525880 E:admin@middlemarch-environmental.com</p> <p><small>This map is reproduced from the Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution of civil proceedings. Licence Number: 100040519</small></p>			


C161166-01-01



Legend

- Survey area
- Japanese knotweed rhizome spread zone
- Red zone
- Amber zone
- Green zone
- Amber zone target note
- F1- Japanese knotweed (amber zone)
- F2- Tree stump (amber zone)

Project		Charville Lane Children's Home	
Drawing		113 Charville Lane, London Borough of Hillingdon	
Client		Biodiversity Protection Zones	
Drawing Number		C161731-01-01	
Scale @ A3		1:400	
Approved By		ND	
Revision		00	
Date		February 2024	
Drawn By		KB	



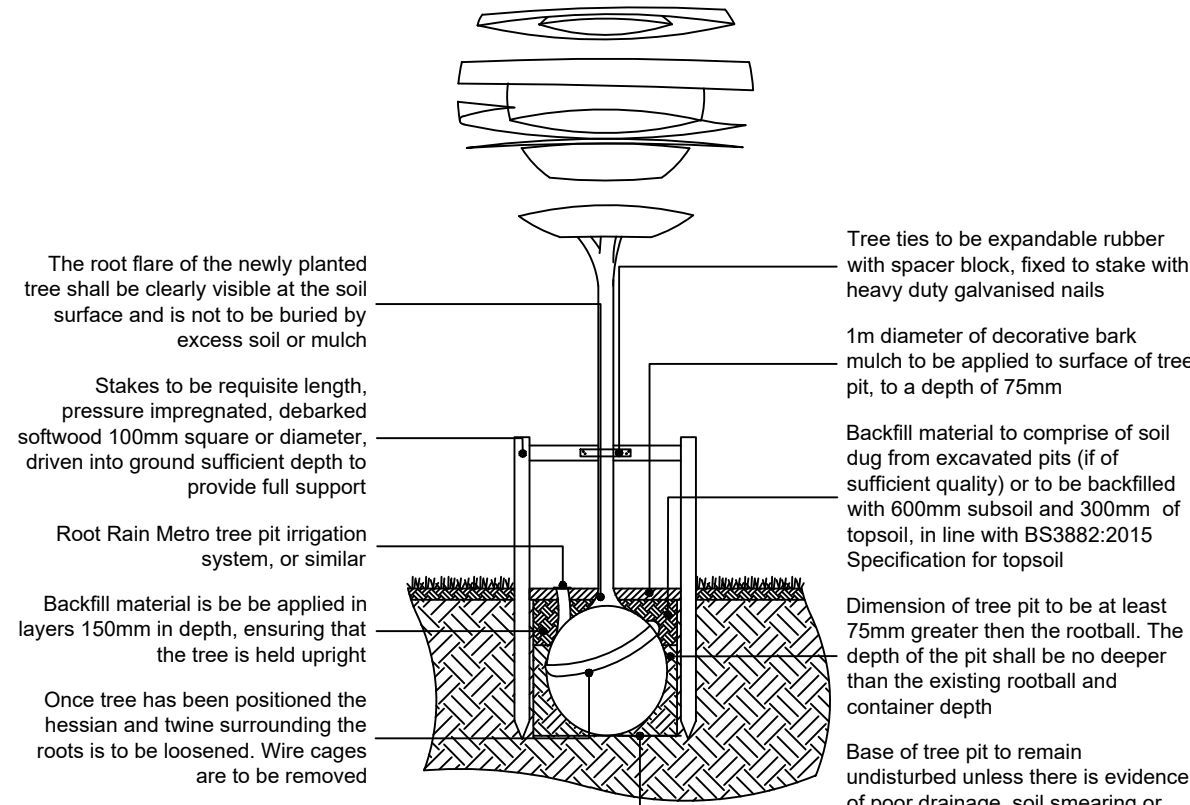
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C161731-01-01

Tree Pit Detail: Soft Landscape



Components as supplied from GreenBlue Urban or similar

Planting Schedule

Species Name	Girth	Height	Density	Specification	No.
Ilex aquifolium	60-80cm	0.5Ctr	Double Staggered at 0.3m offset	Leader with laterals :B	12
Malus sylvestris	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+1 :Transplant :B	25
Corylus avellana	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+2 :Branched :3 brks :B	37
Prunus avium	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+1 :Transplant :B	25
Carpinus betulus	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+1 :Transplant :B	25
Acer campestre	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+1 :Transplant :B	37
Prunus spinosa	80-100cm	0.5Ctr	Double Staggered at 0.3m offset	1+2 :Transplant :B	24
Malus domestica 'James Grieve'	150-175cm	Counted		Espalier :MM106 rootstock :central leader :3 tiers :B	2
Betula utilis jacquemontii	300-350cm	Counted		Multi-Stem :Bushy :3 stems :3x :RB	1
Amelanchier 'Ballerina'	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	1
Malus 'John Downie'	350-425cm	Counted		Standard :3 Stems :2x :C	2
Carpinus betulus	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	1
Betula pendula	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	2
Malus 'Evereste'	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	1
Corylus colurna	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	1
Prunus serrula	12-14cm	350-425cm	Counted	Heavy Standard :Clear Stem 175-200 :5 brks :3x :BR	1

Conifers

Species Name	Height	Pot Size	Specification	Density	No.
Juniperus communis	80-100cm	10L	Leader with laterals	Counted	1

Species Name	Height	Pot Size	Specification	Density	No.
Berberis thunbergii 'Atropurpurea Nana'	25-30cm	5L	Branched :5 brks :C	2/m ²	53
Ceanothus 'Autumnal Blue'	60-80cm	10L	Leader With Laterals :5/6 brks :C	Counted	3
Choisya 'Aztec Pearl'	40-60cm	5L	Branched :4 brks :C	2/m ²	7
Cornus alba	100-125cm	20L	Branched :7 brks :C	Counted	6
Cornus sanguinea	100-125cm	20L	Branched :7 brks :C	Counted	7
Corylus avellana	80-100cm	5L	1+1 :Transplant :Branched :4 brks :BR	Counted	1
Escallonia 'Apple Blossom'	40-60cm	5L	Bushy :5 brks :C	2/m ²	116
Hebe pinguifolia 'Page'	25-30cm	5L	Bushy :5/7 brks :C	2/m ²	41
Hebe pinguifolia 'Sutherlandii'	30-40cm	5L	Bushy :5/7 brks :C	2/m ²	48
Hypericum 'Hidcote'	30-40cm	5L	Bushy :7 brks :C	2/m ²	23
Lavandula angustifolia 'Hidcote'	20-30cm	5L	Bushy :C	2/m ²	4
Leucostemum vulgare	60-80cm	3L	Branched :4 brks :C :Maintained as hedge	3/Ctr	238
Mahonia aquifolium 'Apollo'	40-60cm	5L	Branched :3 brks :C	3/m ²	32
Pachysandra terminalis	3L	Several shoots :6/9 brks :C		4/m ²	57
Pittosporum tenuifolium 'Tom Thumb'	20-30	5L	Bushy :5 brks :C	2/m ²	8
Sarcococca humilis	25-30cm	5L	Bushy :5/6 brks :C	3/m ²	43
Viburnum bodnantense 'Dawn'	80-100cm	10L	Branched :4 brks :C	Counted	4
Viburnum tinus 'Eve Price'	40-60cm	15L	Bushy :7/10 brks :C	Counted	4

Climbers

Species Name	Height	Pot Size	Specification	Density	No.
Lonicera periclymenum	80-100cm	3L	Several Shoots :3/4 brks :Caned	Counted	4

Herbaceous

Species Name	Height	Pot Size	Specification	Density	No.
Alcea repens	2L	Full Pot	3/m ²	85	
Bergenia 'Siberlicht'	3L	Full Pot	3/m ²	115	
Erysimum 'Bowles Mauve'	3L	Full Pot	5/m ²	22	
Sedum spectabile 'Brilliant'	1L	Full Pot	3/m ²	13	
Stachys officinalis	1L	Full Pot	2/m ²	38	

Ferns

Species Name	Height	Pot Size	Specification	Density	No.
Blechnum spicant	5-7.5L	Full Pot	12/m ²	34	

Grasses

Species Name	Height	Pot Size	Specification	Density	No.
Calamagrostis acutiflora 'Karl Foerster'	5L		2/m ²	9	
Festuca glauca 'Elijah Blue'	5L	Full Pot	3/m ²	24	
Stipa tenuissima 'Pony Tails'	5L	Full Pot	4/m ²	38	

Legend

- Existing trees to be retained and protected during construction.
- Proposed tree planting within soft landscape. See detail on Composite Plan
- Proposed multi-stemmed tree planting within soft landscape
- Proposed espalier tree planting within soft landscape. To be trained up against boundary wall with galvanised metal structure (refer to Soft Landscape Specification)
- Proposed specimen shrub planting
- Proposed climbing plants to be trained up adjacent wall with galvanised wires and hook set 250mm apart with support canes removed prior to planting
- Proposed single species hedge planting to be planted in a single row at 300mm centres. To be maintained at 1m height
- Proposed mixed native hedge planting to be planted in a double staggered row 300mm apart and at 500mm centres in each row. To be maintained at 1.8m height adjacent to site boundaries
- Proposed shrub planting to receive 75mm bark mulch after planting operations
- Proposed decorative mix shrub planting to be planted in groups of 2, 3, 5 no. of each species and as above
- Proposed grass areas to receive Wildflower Turf WFT-Species-Rich-26 amenity turf, as supplied by Wildflower Turf, and laid in line with good horticultural practices
- Proposed grassland areas, to be seeded with EL1 Flowering Lawn Mixture seed mix as supplied by Emorsgate Seeds and sown at 4 g/m², or similar
- Existing grass areas to be retained and protected during construction, scarified and oversown with EL1 Flowering Lawn Mixture, as described above
- Proposed loose gravel path, to be laid on a geotextile to base, with Dove Grey limestone gravel 20mm, or similar
- Proposed edging to gravel areas, to be AluExcel, 40mm high, as supplied by Kinley, or similar
- Proposed wooden raised vegetable planters within the rear garden of Education Building. Planter dimensions to be: Planter 1 (width x length x height) - 0.5x3.0x65m; Planter 2 - 1.0x3.0x0.25m; Planter 3 (L shaped, bench included) - 1.575x3.75x0.65m. To be supplied by Wood Bloxx or similar
- Proposed metal arched structure, 1.5x3.0x2.5m (width x length x height), to support vegetable climbing plants. To be anchored on the adjacent raised planters, as supplied by Agriframes or similar
- Proposed wooden bench, type 2 backless bench (panel legs), as supplied by Woodscape, or similar
- Proposed location of bug hotel and relocated tree stump as per Ecological Enhancement Plan
- Cut lines

SPECIFICATION
All works to comply with the written Soft Landscape Specification.

NOTES:
DO NOT SCALE FROM DRAWING
NOT FOR CONSTRUCTION, FOR PLANNING PURPOSES ONLY

Rev Date Details Drawn



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scheme: Charville Childrens Home,
Charville Lane, Hayes

client: Bugler Developments

drawing: Soft Landscape Proposals

date: Feb 2024

scale: 1:200@A1

drawing no: BUG24485-11 Composite

drawn: AC checked: HCS

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Appendix 1

Summary of Relevant Wildlife Legislation

Common amphibians

Common frogs, common toad, smooth newt and palmate newt are protected in Britain under Schedule 5 of the Wildlife and Countryside Act (1981, as amended) with respect to sale only. They are also listed under Annex III of the Bern Convention 1979. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger. The convention seeks to prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species.

Common toad is listed as a Species of Principal Importance for Nature Conservation in England.

Bats

Bats and the places they use for shelter or protection (i.e. roosts) receive legal protection under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The reader should refer to the original legislation for the definitive interpretation.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*. Species of Principal Importance for Nature Conservation in England are material considerations in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

Nesting Birds

The Conservation of Habitats and Species Regulations 2017, (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019) places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds.

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended).

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Some species (listed in Schedule 1 of the WCA) are protected by special penalties. Subject to the provisions of the act, if any person intentionally or recklessly:

- disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird, he shall be guilty of an offence.

Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992. The Protection of Badgers Act 1992 is based primarily on the need to protect badgers from baiting and deliberate harm or injury, badgers are not protected for conservation reasons. The following are criminal offences:

- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.
- To wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so.

A badger sett is defined in the legislation as:

- 'Any structure or place that displays signs indicating current use by a badger'.

'Current use' is not synonymous with current occupation and a sett is defined as such (and thus protected) as long as signs of current usage are present. Therefore, a sett is protected until such a time as the field signs deteriorate to such an extent that they no longer indicate 'current usage'.

Badger sett interference can result from a multitude of operations including excavation and coring, even if there is no direct damage to the sett, such as through the disturbance of badgers whilst occupying the sett. Any intentional or reckless work that results in the interference of badger setts is illegal without a licence from Natural England. In England a licence must be obtained from Natural England before any interference with a badger sett occurs.

The reader should refer to the original legislation for the definitive interpretation.

Hedgehog

Hedgehogs receive some protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); this section of the Act lists animals which may not be killed or taken by certain methods, namely traps and nets, poisons, automatic weapons, electrical devices, smokes/gases and various others. Humane trapping for research purposes requires a licence.

Hedgehogs are a Species of Principal Importance for Nature Conservation in England and are thus capable of being material considerations in the planning process.

Stag beetle

The stag beetle is in decline globally. It is listed on Annex II of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (a list of animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation). Stag beetle also receives protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended, making the following activities illegal: selling, offering for sale, processing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from, such animal. Stag beetle is also listed as a Species of Principal Importance for Nature Conservation in England.

Invasive Plant Species

Japanese Knotweed

Japanese Knotweed is included on Schedule 9, Part II of the Wildlife and Countryside Act, 1981. This act provides the primary controls on the release of non-native species into the wild in Great

Britain. It is an offence under section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II.

Japanese Knotweed and cherry laurel are both included under Category 3 of the London Invasive Species Initiative (LISI). This initiative includes a list of invasive non-native species of concern in Greater London. This initiative aims to provide direction and a means of prioritisation for land managers by grouping species into different management categories, described as follows:

- Category 1: Species not currently present in London but present nearby or of concern because of the high risk of negative impacts should they arrive.
- Category 2: Species of high impact or concern present at specific sites that require attention (control, management, eradication etc).
- Category 3: Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate.
- Category 4: Species which are widespread for which eradication is not feasible but where avoiding spread to other sites may be required.
- Category 5: Species for which insufficient data or evidence was available from those present to be able to priorities.
- Category 6: Species that were not currently considered to pose a threat or have the potential to cause problems in London.

The initiative works to coordinate action in line with The Invasive Non-Native Species (INNS) Framework Strategy for Great Britain, whilst also delivering benefits under the Water Framework Directive and national biodiversity objectives, including the London Biodiversity Action Plan.

Appendix 2

Sample Ecological Permits, Certificates and Forms

ECOLOGICAL PERMIT TO WORK (SAMPLE)

CONTRACT NAME:		CONTRACT NO:	PERMIT NO:
RECEPIENT:			
ZONE/AREA:			

PROPOSED NATURE OF WORKS:								
ECOLOGICAL ISSUES:								
	Nesting birds		Reptiles		Other			
ECOLOGICAL CONTROL LEVEL:	Green / Amber / Red							
ECOLOGICAL CONTROL MEASURES:	Nesting bird check			Reptile habitat supervision			Other	
Vegetation clearance must be undertaken within 48 hours of:								

PROPOSED NATURE OF WORKS:								
ECOLOGICAL ISSUES:								
	Nesting birds		Reptiles		Other			
ECOLOGICAL CONTROL LEVEL:	Green / Amber / Red							
ECOLOGICAL CONTROL MEASURES:	Nesting bird check			Reptile habitat supervision			Other	
Vegetation clearance must be undertaken within 48 hours of:								

MS APPROVAL	YES		NO		ECW sign:
NOTES/ISSUES					
ECOLOGICAL MANAGER					
ECoW					
Notes:					
1. Ecological control levels	Red = No access to areas for working or storage				
	Amber = Full-time to part-time ECoW supervision				
	Green = Visiting ECoW role				
Permit Valid Dates	From:		To:		
Document No:	Document date:		Revision No:		

ECOLOGY CERTIFICATE 1 (SAMPLE)

Form of Certificate to be used by the Ecological Manager for certifying that the relevant Works have been completed.

1. We certify that we have used reasonable professional skill and care in examining the Works carried out listed below and that in our opinion all such Works have been completed in all respects in accordance with the Contract, so as to accord with the Ecological Design to which there has been no objection under the Review and Certification Procedure and so as to satisfy the Employer's Requirements and the Contractor's Proposals as amended by the following Contractor's Changes and Employer's Changes.

[DETAILS OF ECOLOGICAL WORKS]

Signed
 Environmental Manager (Partner or Director)
 Name
 Title
 Date

Signed
 Project Manager (Principal)
 Name
 Title
 Date

Where the Environmental Manager is not a specialist in this area

2. This certificate is
 - i accepted*
 - ii accepted with comments:*
 - iii returned unaccepted with comments:*
 *delete as appropriate

Signed
 Employer's Agent

Name

Date

DAILY RECORD SHEET (SAMPLE)

SITE NAME		
ECOLOGICAL CLERK OF WORKS - DAILY RECORD SHEET		
DATE: TBC		PROJECT NO:
ECOW NAME: TIMES:		WEATHER: TEMPERATURE- CLOUD- WIND- PRECIPITATION-
PLOT REF.	ACTIVITY SUPERVISED, NOTES ETC	ACTION REQUIRED (WHOM)