



**Land South of Darton
Lane, Darton,
Staincross**

**Outline Ecology
Management Plan
(Grassland and
SuDS)**

Prepared by:
**The Environmental
Dimension Partnership
Ltd**

On behalf of:
**Church Commissioners
for England**

August 2020
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Section 1

Introduction, Aims and Objectives

Site and Planning Context

- 1.1 This Outline Ecology Management Plan (EMP) has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of the Church Commissioners for England (hereafter referred to as 'the Applicant'). It provides the ecological management principles for the retained grassland and created sustainable drainage scheme (SuDS) feature as requested by Barnsley Metropolitan Borough Council (BMBC) for a proposed development at Land South of Darton Lane, Darton, Staincross in South Yorkshire (hereafter referred to as 'the Site').
- 1.2 This document should be read in conjunction with the Ecological Appraisal for the Site, also produced by EDP (reference: edp3487_r003).
- 1.3 The Ecological Appraisal identified an area of grassland, approximately 1.9 hectares (ha), of botanical interest in the west of the Site and recommended that it be retained where possible. The grassland of interest is the species-rich semi-improved grassland shown in orange on **Plan EDP 1**. It qualifies as a Lowland Meadow Priority Habitat¹ and is considered to be of Local value. Further details on its extent within the Site and its floristic communities can be found in the Ecological Appraisal.
- 1.4 The Applicant has been in consultation with BMBC regarding the Site. Following this consultation, it was agreed that whilst some of the high quality grassland would be lost, an area would be retained and a request for an outline EMP for the retained grassland and any created SuDS features was made by Senior Planning Officer, Hannah Andrew, in order to progress the outline planning application.

Aims

- 1.5 This document is written to provide a broad framework for grassland management and SuDS habitat creation and management to provide and maintain high quality habitat within the Site. It is recommended that specific measures for habitat creation and management across all green space on the Site, following the broad measures set out below, will be provided within a Landscape and Ecological Management Plan (LEMP), secured through an appropriately worded condition attached to any outline consent.
- 1.6 The overall aim of the management proposals is to provide high quality habitat within the Site to compensate for the reduction in grassland area resulting from the proposed development. The objectives devised to achieve this aim are:

¹ UK Biodiversity Action Plan Priority Habitat Descriptions, Lowland Meadows From: UK Biodiversity Action Plan; Priority Habitat Descriptions. BRIG (ed. Ant Maddock) 2008.

- **Objective 1** – Improve the condition of the retained grassland on Site and enable the maintenance of this condition in the long term through appropriate management to ensure it retains its biodiversity value despite some loss to the total area; and
- **Objective 2** – Establish new high-quality wet grassland habitat and scrub within the proposed SuDS basin.

Delivery Mechanisms and Timescales

- 1.7 The grassland and other existing features to be retained will be protected during the construction phase through the adoption of an Ecological Construction Method Statement (ECMS), including mitigation designed to avoid significant ecological effects on key ecological features including the grassland.
- 1.8 Enhancement of the existing grassland and creation of new habitats within the SuDS will be implemented after the construction period, following the principles set out in this outline EMP, within a LEMP secured by a suitably worded condition attached to any outline consent.
- 1.9 Throughout the operational phase of the development, the ongoing habitat management at the site will be in line with this outline EMP/the LEMP and the responsibility will be passed on to the purchaser/developer and their chosen contracted management company.

Section 2

Establishment, Maintenance and Monitoring

- 2.1 This section outlines the establishment and management principles which should be undertaken for the retained grassland and newly created ecological habitat within the SuDS basin. Full details on management prescriptions and the length of the management periods will be provided within the LEMP secured by a suitably worded condition attached to any outline consent.

Semi-improved Neutral Grassland (MG5 sub-communities)

- 2.2 The area of grassland to be retained is 0.63ha plus an additional 0.12 ha area of slightly less value (shown in **Appendix EDP 1**) and both areas should be managed as one, like a traditional hay meadow, following these principles:
- The grassland will be allowed to grow uncut from March until July/early August;
 - It will then be cut to ground level and arisings left to dry before removing from site. To aid with drying and seed-fall, arisings will be regularly turned before removal; and
 - Thereafter, a second cut should be taken in late autumn and the cuttings removed from site.
- 2.3 There will be no public access to the retained grassland to avoid damage and disturbance and nutrient enrichment from dog faeces.
- 2.4 Access suitable for the delivery of mowing machinery must be provided.
- 2.5 The fence surrounding the retained grassland should be installed prior to any site clearance or enabling works.
- 2.6 Undesirable weeds including, but not restricted to, ragwort (*Senecio jacobaea*), thistle (*Cirsium* sp.) and dock (*Rumex* sp.) except *Rumex acetosa* will be spot treated with an approved herbicide.
- 2.7 There will be no application of artificial fertilizer, fungicide or insecticide at any time. Herbicide will only be used to control injurious weeds.
- 2.8 Any dumped garden waste and litter will be removed from site prior to the summer hay cut.

Monitoring

- 2.9 An National Vegetation Classification (NVC) survey of the grassland will be undertaken every three years within the plant growth season (May to June) to assess if the grassland continues to retain its diversity and continues to match the two MG5 sub-communities that

are currently present. During this survey, the extent of injurious weeds and other undesirable species would also be recorded.

Review of Procedures Following Monitoring

- 2.10 Following the NVC survey work, if the condition of the grassland does not improve and/or the diversity is shown to be decreasing such that the grassland no longer matches the MG5 sub-communities shown to be currently present, then the adopted management plan will be reviewed and amended in consultation with BMBC. Appropriate action may include adjusting the cutting regime and/or over-seeding with green hay/wildflower seed.

SuDS Basin

- 2.11 The SuDS basin is to be managed in such a way as to provide biodiversity value. The aim for this habitat is to establish robust, healthy and vigorous growth of planting within and surrounding the drainage attenuation pond. This planting will provide a diversity of habitat and an enriched level of species for ecological benefit and landscape amenity.

Pond Edge Mixture

- 2.12 The basin is designed to hold permanent water. Whilst the open water area will be allowed to colonise naturally, the edges of the basin at the water line, will be seeded with an appropriate pond edge mixture. The mixture will be Emorsgate Seeds EP1, or similar; the composition is given in **Table EDP 2.1** below.

Table EDP 2.1. The Composition of the Recommended Pond Edge Mixture for the SuDS basin

%	Latin name	Common name
Wildflowers (20%)		
0.5	<i>Achillea ptarmica</i>	Sneezewort
2	<i>Angelica sylvestris</i>	Wild angelica
0.2	<i>Caltha palustris</i>	Marsh marigold
1.5	<i>Centaurea nigra</i>	Common knapweed
1	<i>Eupatorium cannabinum</i>	Hemp agrimony
3	<i>Filipendula ulmaria</i>	Meadowsweet
0.5	<i>Geum rivale</i>	Water avens
0.5	<i>Hypericum tetrapterum</i>	Square-stalked St John's wort
4	<i>Iris pseudacorus</i>	Yellow iris
1	<i>Lotus pedunculatus</i>	Greater birdsfoot trefoil
0.8	<i>Lycopus europaeus</i>	Gypsywort
0.6	<i>Lythrum salicaria</i>	Purple loosestrife
0.1	<i>Mentha aquatica</i>	Water mint
0.1	<i>Pulicaria dysenterica</i>	Common fleabane
2	<i>Ranunculus acris</i>	Meadow buttercup
0.6	<i>Sanguisorba officinalis</i>	Great burnet
0.8	<i>Silene flos-cuculi</i> - (<i>Lychnis flos-cuculi</i>)	Ragged robin
0.5	<i>Succisa pratensis</i>	Devil's-bit scabious
0.3	<i>Vicia cracca</i>	Tufted vetch
Grasses (80%)		
10	<i>Agrostis capillaris</i>	Common bent
3	<i>Alopecurus pratensis</i>	Meadow foxtail (w)

%	Latin name	Common name
3	<i>Anthoxanthum odoratum</i>	Sweet vernal-grass (w)
3	<i>Briza media</i>	Quaking grass (w)
24	<i>Cynosurus cristatus</i>	Crested dogstail
2	<i>Deschampsia cespitosa</i>	Tufted hair-grass (w)
32	<i>Festuca rubra</i>	Slender-creeping red-fescue
3	<i>Hordeum secalinum</i>	Meadow barley (w)

Wildflower Grassland

- 2.13 The remaining high area around the SuDS pond will be sown with a bespoke seed mix to match the MG5 sub-communities of the retained grassland. Whilst the SuDS pond is situated within the area of existing MG5 grassland, it is likely that the grassland will be damaged by the digging of the pond and thus will require re-instating. Such bespoke mixes are available from naturescape.co.uk.

Sowing

- 2.14 The sowing of pond edge mixture and the bespoke seed mixture will be undertaken as per the recommendations of the seed supplier and at an appropriate time of year to ensure the successful establishment of the grassland.

First Year Management

- 2.15 In the first year, the grassland will not be subject to a hay cut but annual weed growth may be cut back to encourage the development of a good perennial ground cover.

Management from Year 2 Onwards

- 2.16 Following establishment, management of the surrounding grassland will continue to follow the prescriptions set out in paragraph 2.2.

Scrub Planting

- 2.17 A small area of hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) scrub will be created in the eastern corner of the attenuation area to provide further structural and species diversity to this area as well as some cover and protection for the hibernacula (see below). This will link to the scrub adjacent to the Site on the dismantled railway and provide continuity of habitat. This area of scrub will be planted as per best practice and once planted will be allowed to grow to its full height and spread. Management of the scrub will be as per the following paragraphs.
- 2.18 Inspections of new scrub planting will be carried out annually for a period of five years from the first spring following planting to: ensure the adequate establishment of all plants; identify the presence of any disease; and determine whether remedial action is required.
- 2.19 The condition of all stakes, ties and guards will be checked by the Developer and all broken items will be replaced and items regularly adjusted to accommodate plant growth and prevent rubbing. Any bark damage will be cut back neatly with a sharp knife. All plants will

be straightened and the ground at the base to be firmed up. All shelters will be hand weeded.

- 2.20 Areas where plants have failed to thrive will be identified by the Developer and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season as frequent as necessary.
- 2.21 The requirement for selective thinning of all newly planted trees/shrubs will be assessed every three years and undertaken as necessary to ensure that overcrowding is reduced with increasing species maturity; and that diseased and dying plants are removed. Thinning is to be undertaken between October and March inclusive to avoid the main bird breeding season.
- 2.22 From year five after planting, or once plants are established, all stakes, ties, supports and shelters can be removed and disposed of off-site.

Hibernacula

- 2.23 Reptiles are known to be present on the dismantled railway line to the south of the Site and reptiles have been seen occasionally within the Site, but suitable habitat for reptiles is currently limited. Therefore, to provide habitat for reptiles within the Site and improve the ecological value of the SuDS area further, a reptile and amphibian hibernacula will be installed in the newly created scrub area in the eastern corner the SuDS area and will follow the specifications in **Appendix EDP 2**.
- 2.24 This should be inspected annually, and repairs conducted as necessary outside of the reptile and amphibian hibernation period (repairs can be conducted between April and September).

Section 3

Timetable of Works and Conclusions

Timetable of Works

- 3.1 **Table EDP 3.1** provides a summary of the optimal timings of the actions required for creating new habitat and **Table EDP 3.2** provides the optimal timings for the monitoring and maintenance tasks for the newly created and retained habitats.

Conclusions

- 3.2 It is considered that the management and maintenance measures outlined within this outline EMP are sufficient to protect and conserve the retained MG5 grassland and created ecological features of the SuDS area.

Table EDP 3.1: Optimal Timings for the New Habitat Creation

[illegible]

Table EDP 3.2: Optimal Timings for Monitoring and Maintenance

[illegible]

Appendix EDP 1
Proposed Site Layout, Edward Architecture,
23.06.20, 0708-SK10 C

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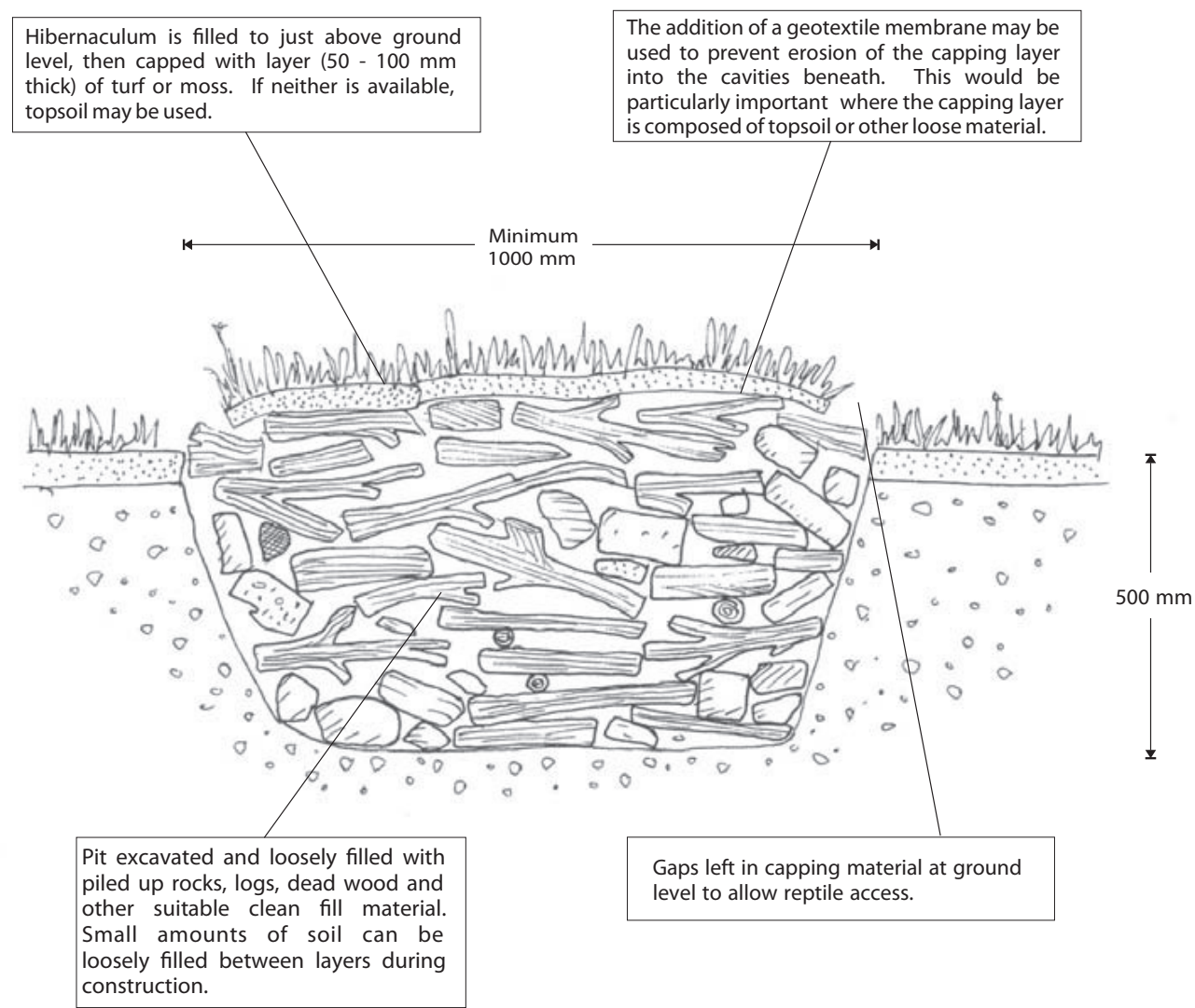
Appendix EDP 2

Reptile Hibernacula Specification

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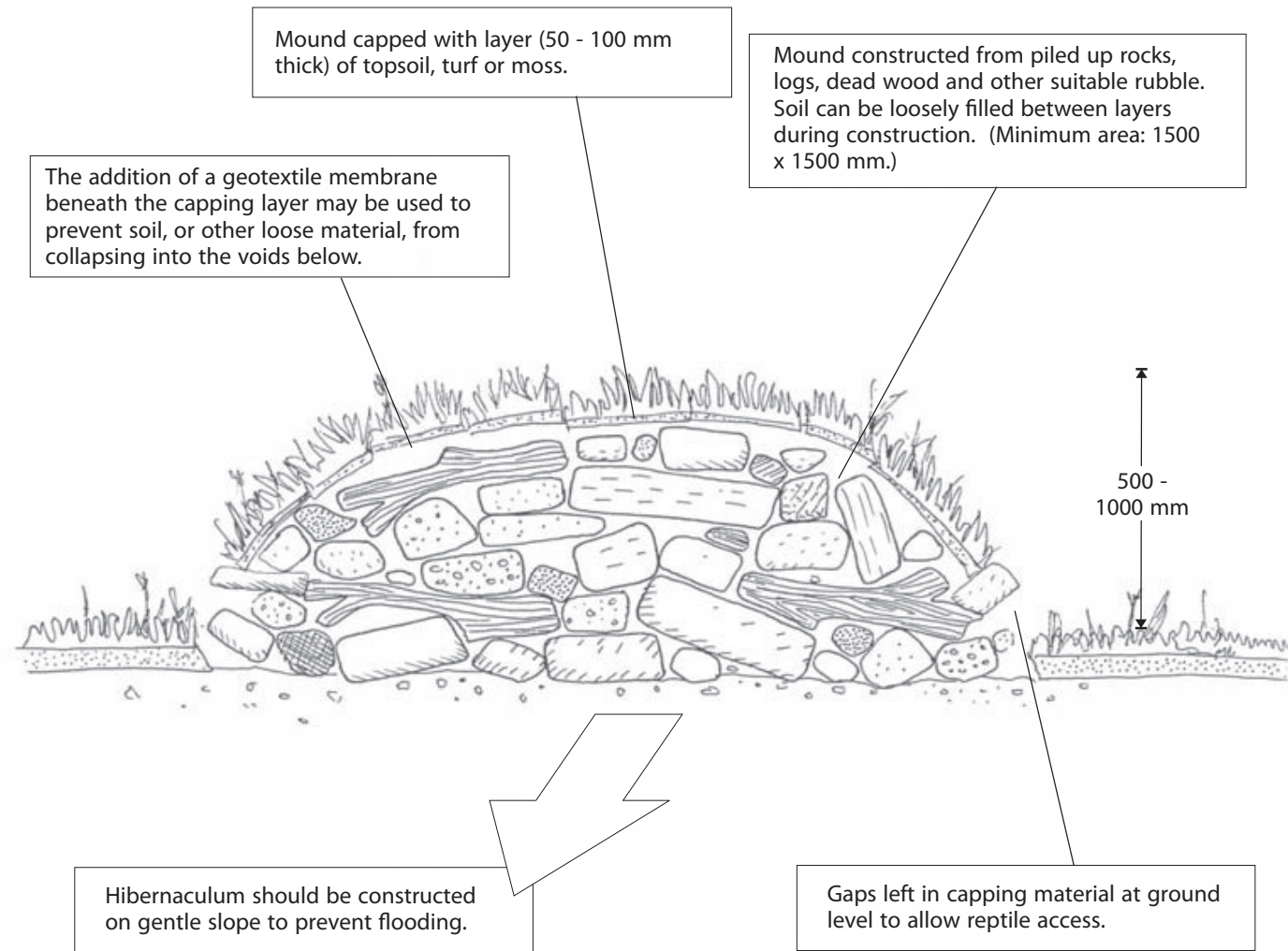
Hibernaculum on free-draining ground

Where ground conditions allow, the hibernaculum should be incorporated into a shallow pit. This design is more likely to remain frost-free, and will be less obtrusive and thus unlikely to be subject to interference.



Hibernaculum on impermeable ground

Where ground conditions are impermeable, then an 'above-ground' or mounded design should be utilised in order to prevent the hibernaculum from flooding. This design should also be used if it is not possible to excavate a pit for any other reason.

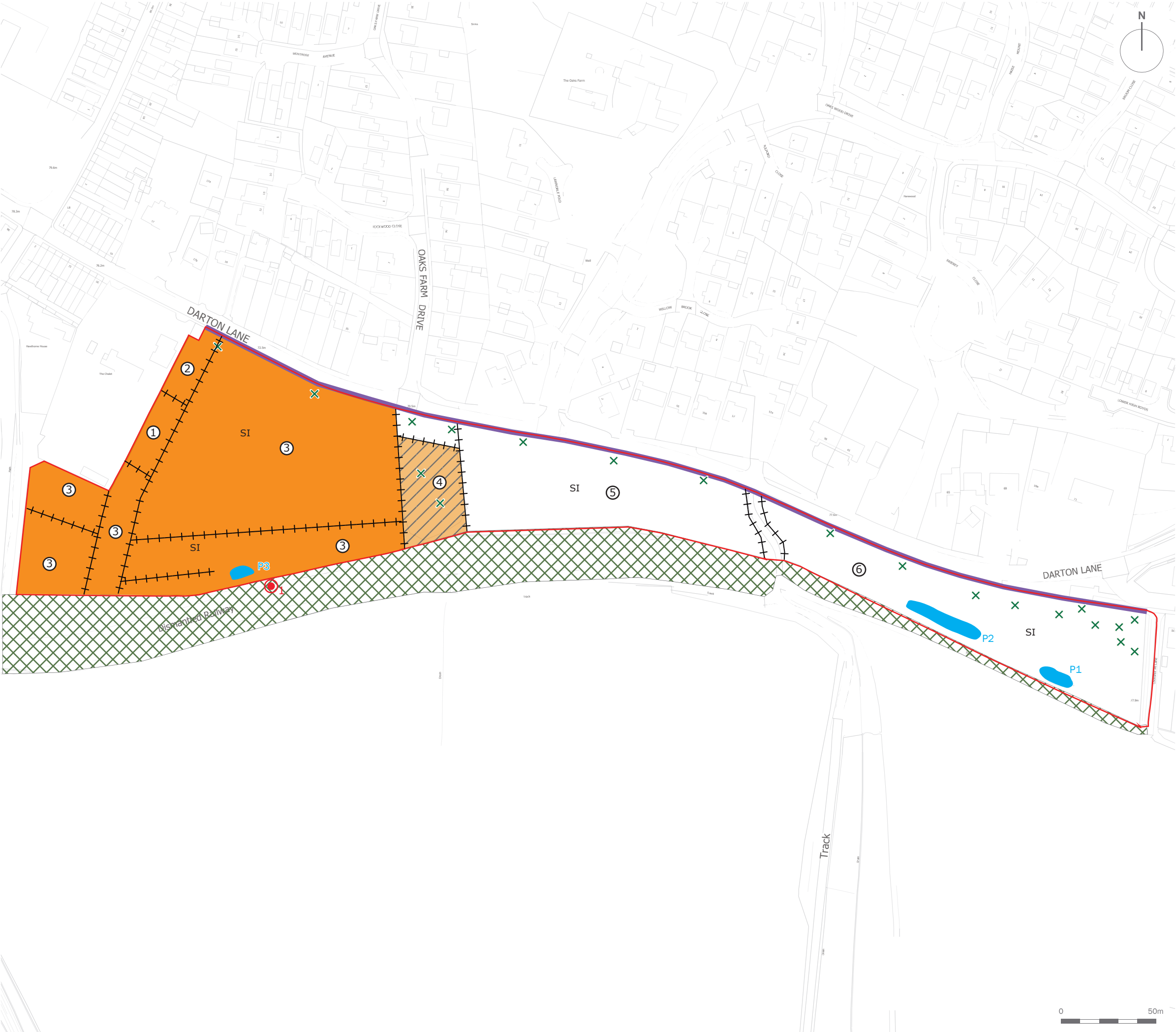


Plan

Plan EDP 1

Extended Phase 1 Habitat Plan
(edp3487_d002c 12 August 2020 VN/RB)

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Site Boundary

Dense Continuous Scrub

Marshy Grassland

SI

Species-poor Semi-improved Grassland

SI

Species-rich Semi-improved Grassland

Pond

++++

Fence

Wall

x x x

Scattered Scrub

1

Target Note

1

Field Number

P3

Pond Number

client

Church Commissioners for England

project title

Land South of Darton Lane, Darton, Staincross

drawing title

Extended Phase 1 Habitat Plan

date

12 AUGUST 2020

drawn by

CR

drawing number

edp3487_d002c

checked

VN

scale

Refer to scale bar @ A3

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