



THE
ENVIRONMENT
PARTNERSHIP



BRYN LANE WREXHAM HABITAT MANAGEMENT PLAN

TEP
Genesis Centre
Birchwood Science Park
Warrington
WA3 7BH

Tel: 01925 844004
Email: tep@tep.uk.com
www.tep.uk.com

Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

Document Title	Habitat Management Plan
Prepared for	Net World Sports
Prepared by	TEP - Warrington
Document Ref	7215.004

Author	Amy Lee/ Fleur Wilson
Date	October 2018
Checked	Emma Parker
Approved	Lee Greenhough

[illegible]

CONTENTS	PAGE
1.0 Introduction	2
Purpose of the Management Plan	2
Scope of the Management Plan	2
Structure of the Management Plan	2
Site Location	2
2.0 Site Management Considerations.....	3
Responsibility for Site Management	3
Management Objectives.....	3
Ecological Factors	3
Amphibians	3
Breeding Birds.....	3
Bats.....	4
Legal Factors	4
3.0 Management Intentions and Operations.....	5
Landscape Elements.....	5
All Areas: Cleansing	5
Soft Landscape Element: Existing Trees	5
Soft Landscape Element: Hedgerows.....	6
Soft Landscape Element: Existing Arable Field	6
Soft Landscape Element: Proposed Wildlife Ponds	7
Soft Landscape Element: Species-rich Grassland	8
Soft Landscape Element: Wet Grassland Seeding	9
Soft Landscape Element: Aquatic Planting	10
Ecological Feature: Amphibian Hibernacula	10
Monitoring and Review	11
Monitoring	11
Review	11

APPENDICES

- APPENDIX A: LANDSCAPE PROPOSALS (TEP REF: D7215.001A)
- APPENDIX B: POND AND HIBERNACULA DETAILS (TEP REF: D7215.002A)
- APPENDIX C: LANDSCAPE MAINTENANCE SCHEDULES
- APPENDIX D: SUMMARY OF RELEVANT LEGISLATION

1.0 Introduction

Purpose of the Management Plan

- 1.1 This Habitat Management Plan has been produced by The Environment Partnership (TEP) Limited on behalf of Net World Sports Ltd. This document supports a standalone planning application for the creation of two ponds and surrounding landscaping, submitted in advance of an associated reserved matters application for a commercial unit at a site off Bryn Lane, Wrexham Industrial Estate site.
- 1.2 In order to accommodate the forthcoming application of the commercial unit, there will be a loss of aquatic and terrestrial habitat which support great crested newt (GCN). Replacement ponds and enhanced landscaping are required to mitigate for this loss. This report details the management responsibilities and requirements for the new wildlife ponds and surrounding area, in the unlikely event that the forthcoming development does not come forward.
- 1.3 This document will be superseded by a revised long-term management plan submitted at a later date, should the commercial unit develop. The extent to which this Management Plan relates, only covers the necessary mitigation area and will henceforth be referred to as 'the Site'.

Scope of the Management Plan

- 1.4 The Management Plan describes the Site in terms of landscape elements and management operations and provides recommendations for the duration of 5 years.
- 1.5 The Management Plan should be read in conjunction with the Landscape Proposals (TEP ref: D7215.001A), Pond and Hibernacula Details (TEP ref: D7215.002A), and Ecological Mitigation Plan (TEP ref: 7215.005).

Structure of the Management Plan

- 1.6 Chapter 2.0 provides a summary of the factors influencing management. Chapter 3.0 outlines the long-term aims and objectives for management and Chapter 4.0 sets out how the success of the plan will be monitored, reviewed and updated over time.
- 1.7 Appendix A is the Landscape Proposals (TEP ref: D7215.001A), Appendix B is the Pond and Hibernacula Details (TEP ref: D7215.002A), Appendix C provides a table of maintenance operations and Appendix D summarises relevant legislation.

Site Location

- 1.8 The Site lies to the north-east of Wrexham Industrial Estate, approximately 5.8km west of Wrexham town centre. Ridley Wood Lane lies to the north of the site, arable and improved grassland fields and associated hedgerow boundaries with scattered trees lie to the east and west, with woodland to the south.

2.0 Site Management Considerations

Responsibility for Site Management

- 2.1 The site will remain privately own within the interim period, before the commencement of development. The landowner will be responsible for operational management and maintenance of the landscape within the site boundary.

Management Objectives

- 2.2 The long term management objectives of this plan are:
- To manage the GCN mitigation area as an enhanced habitat for amphibians, bats, birds and invertebrates; and
 - To comply with legal obligations and constraints.

Ecological Factors

Amphibians

- 2.3 Data from ponds regularly monitored (Cofnod) across the Wrexham Road Industrial Estate confirms the presence of a nationally important, large, metapopulation of GCN.
- 2.4 GCN are a priority species under Section 7 of the Environment (Wales) Act (2016) and are listed on the Wrexham's Biodiversity Action Plan. GCN and their aquatic habitat are protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended, and the Conservation of Habitats and Species Regulations as amended (2017). Under this legislation it an offence to intentionally kill, injure or capture GCN. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to places used by GCN for shelter or protection or to disturb them whilst they are occupying these habitats.
- 2.5 GCN spend most of their life on land sheltering in hedges, woods, walls and rough grassland. Adults return to the pond for a few weeks in spring to lay eggs. Eggs hatch into larvae which stay in the ponds until autumn when they leave the water.
- 2.6 GCN tend to favour well established ponds with good vegetation and no fish. They can forage up to 500m away from the pond. GCN prefer older woodlands as there is more dead wood. Hedgerows, rough grassland and scrub areas are used by GCN for refuge.

Breeding Birds

- 2.7 The surrounding hedgerows, trees and off-site bordering woodland to the south provide valuable habitat for breeding birds.
- 2.8 All UK wild birds are protected while at the nest. Effectively, this means that if removal of habitats (which can include buildings, trees, hedges, scrub and grassland) cannot be timed to avoid the bird breeding season (March to August inclusive), then a survey by a suitably experienced ecologist will be required to ensure no nesting birds will be affected. There is generally no process to gain a licence to disturb nesting birds; therefore, if active nests are present works will need to avoid the area of the nest until the young have fledged.

Bats

- 2.9 The surrounding mature trees along the bordering hedgerow and woodland edge provide varying levels of bat roost potential.
- 2.10 Bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations as amended (2017).

Legal Factors

- 2.11 Management of the Site must be in line with all legislation relating to health and safety and the environment. A review of the relevant legislation affecting site management is at Appendix D.

3.0 Management Intentions and Operations

Landscape Elements

- 3.1 The Site will comprise the following landscape elements to be managed as shown on the Landscape Proposals (TEP ref: D7215.001A) and Pond and Hibernacula Details (TEP ref: D7215.002A) included in Appendix A and B.
- 3.2 Existing landscape features include:
- Trees;
 - Hedgerows; and
 - Arable Field;
- 3.3 Proposed landscape features include:
- Wildlife ponds;
 - Aquatic planting;
 - Species-rich grassland;
 - Wet grassland seeding; and
 - Amphibian hibernacula.

All Areas: Cleansing

Management Intentions

- 3.4 Cleansing will be carried out to retain biodiversity value. Cleansing refers to the removal of general litter, debris, detritus, broken glass, building rubble, animal fouling, and timber.

Management Operations

- 3.5 There is a small risk of fly-tipping. This will be removed as soon as possible in order to discourage reoccurrences.
- 3.6 The waterbodies are to be included as part of this routine cleanse which will include all floating and submerged debris.

Constraints

- 3.7 Care must be taken during cleansing to check for wildlife which may be hiding in or under items. Any wildlife found will be returned to suitable cover.
- 3.8 When removing material from within or near to the waterbodies, care must be taken to check for amphibians which may be hiding in or under items. Any amphibians, found (except GCN), will be returned to suitable cover. It is an offence to handle GCN unless under a specific licence from Natural Resource Wales (NRW).

Soft Landscape Element: Existing Trees

Management Intentions

- 3.9 Existing scattered trees border the Site and will be maintained to retain their biodiversity value for local wildlife.

Management Operations

- 3.10 Any deadwood found on site will be stacked and kept onsite where possible as it is of value to invertebrates.

Constraints

- 3.11 An arboriculturist and ecologist must be consulted prior to undertaking any major tree works within the Site. Any works with the potential to disturb bats will be subject to a bat survey prior to the works being undertaken. Tree works will be carried out outside of the bird nesting season (between March and August). Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Soft Landscape Element: Hedgerows

Management Intentions

- 3.12 Existing hedgerows that border the Site and will be maintained to retain their biodiversity value for local wildlife.

Management Operations

- 3.13 The bordering Site hedgerows will be cut using appropriate hand or power tools. Mechanical methods of management, where appropriate, will be used in favour of machinery.
- 3.14 The hedge will be cut in an 'A' shape to maintain a wide base for GCN hibernation and nesting birds. The 'A' shape profile of the hedge should be maintained annually by cutting the current season's growth.
- 3.15 If possible only one side will be cut annually. Cutting every 2 years rather than annually will create a bushier hedge for wildlife nesting/refuge and allows for berry production in the alternate years.
- 3.16 Hedgerows can be cut between September to February to avoid bird nesting season. The later hedges are cut the bigger the advantage they provide to foraging wildlife from providing berries and fruits.

Constraints

- 3.17 Any hedgerow management will be carried out outside of the bird nesting season (between March and August). Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Soft Landscape Element: Existing Arable Field

Management Intentions

- 3.18 Existing arable land will continue to be managed to the current regime.

Soft Landscape Element: Proposed Wildlife Ponds

Management Intentions

- 3.19 The maintenance of open water and provision of dense stands of emergent, tall herbs and wet grasslands are important to support a diverse and healthy population of small mammals, amphibians, insects and waterfowl. Management should focus primarily on maximising the nature conservation potential of component features.
- 3.20 Once the ponds have established, they should be managed in the long term to retain at least 35-60% of the surface area as open water. This should be achieved through the pulling or cutting back of marginal and emergent vegetation.

Management Operations

- 3.21 To ensure the diversity of aquatic flora species, macrophytes will be cut back or pulled out if they are starting to become particularly dominant, to allow space for other species to grow and avoid the pond silting up.
- 3.22 Marginal and emergent vegetation control will be implemented during the autumn. Cutting or pulling will be implemented by hand. Arisings will be placed onto protective membrane around the pond edge for 48 hours to allow invertebrate to re-enter the pond. The arisings will then be removed from Site.
- 3.23 Should water levels within the deepest area of the pond fall below half a metre in two consecutive years, de-silting will be required. These works will be undertaken within the period November to January inclusive. Desilting will be undertaken by a long armed excavator and entry and access to the pond will be limited to one point or section of bank. Ground protection will be utilised to reduce damage to marginal habitats. De-silting will be restricted to the central section of the pond with marginal vegetation retained. The top third of a metre of silt will be temporarily placed around the margins of the excavated pond, onto protective membrane, to allow the invertebrate assemblage to repopulate the pond. After a period of 48hrs, the silt and the protective membrane will be removed from Site.
- 3.24 No fertilisers or pesticides will be used within the wet grassland or within such proximity to that drift will affect the wet grassland or pond.
- 3.25 The ponds will be regularly inspected and kept free from litter and debris which may have a detrimental effect on biodiversity. However, in the event that soft pliable debris is noted within the water during the period April to August inclusive, these items will be left in situ as they may potentially support amphibian eggs. A full cleanse after mid-September will be implemented once eggs are hatched and most larvae are developed. Water quality will be visually monitored during these inspections for any signs of pollutants (e.g. scum, excessive algal growth and discolouration) and dominant species. Remedial actions will be implemented accordingly. The advice of an ecologist will be sought if required, if remedial actions may significantly affect the ecology of the pond.
- 3.26 In the event dominant or harmful species are identified, a treatment plan will be drawn up; spot treatment or pulling by hand will be the preferred method.

- 3.27 In the event significant works are required to either pond more than one year after their completion (such as draining to fix levels or desilting), a licensed newt ecologist will be appointed to carry out an amphibian survey prior to the works.
- 3.28 In the event monitoring identifies the presence of fish as a concern to the viability of the pond (specifically its suitability for maintaining the GCN population), fish removal will be implemented in accordance with current best practice. At the time writing, guidance set out by Amphibian and Reptile Conservation is the most relevant (Fish Control Methods for Great Crested Newt Conservation, September 2010). The first option for fish removal will include draining down ponds in winter and leaving them to dry to remove fish. This may be combined with trapping or electrofishing, during the dormant period during late autumn or early spring. It should be noted that the Environment Agency no longer issue consents for Rotenone application for this type of activity.

Inspection

- 3.29 An annual inspection of waterbodies will be undertaken to assess bank stability, presence of fish, water quality, and coverage of aquatic/marginal vegetation, drainage and depths.

Soft Landscape Element: Species-rich Grassland

Management Intentions

- 3.30 The seeding of species-rich grassland is proposed around the ponds and on low mounding to improve the foraging and ranging opportunities for GCN.
- 3.31 Species-rich grassland will be managed to maintain and promote structural and botanical diversity and prevent the grasslands from scrubbing over. Nectar-rich plants will also provide a vital source to invertebrates, and subsequently bats and birds.

Management Operations

- 3.32 Species-rich grassland will prepared and managed to improve structural and floristic diversity of the area.
- 3.33 The soil on the site has been improved through intensive agriculture. Prior to seeding, the soil should be inverted to aid the reduction of high nutrient levels, currently present. The mounds will be created with soil excavated from the ponds creating butterfly banks. It will be ensured that the soil from the lowest depths from excavation is spread evenly across mound tops.
- 3.34 The species-rich grassland will then be cut once a year; varying cut timings each year from late July - late September. Grassland will be cut to a height of 150mm with the arisings raked off and removed from the Site in order to prevent nutrient enrichment.

- 3.35 Grass cuts will be undertaken with flail cutters/mowers set to retain vegetation at a height of 150mm in order to prevent any risk to amphibians that may be present within the grasslands. The cuts must not be carried out by cutting the outer perimeter of the grassland areas and working in towards the centre, as this will trap young chicks, leaving them no opportunity for escape. Instead, grass cuts will work from one side of the area to the other, or from the centre of the grassland, out to the perimeters. Grass cuts will ensure the retention of a 3m buffer of uncut grass alongside hedgerows and woodlands with understorey vegetation.
- 3.36 During the first five years some areas of grassland may require cultivating and re-seeding.
- 3.37 Grassland areas will not be fertilised in order to conserve the sward diversity. Where treatment of noxious weeds such as docks, thistles, nettles, ragwort and willowherb is required, this will be controlled by hand pulling, or spot treatment of glyphosate. It is hoped that in the long term the input of chemicals into this site can be minimised as far as possible.

Soft Landscape Element: Wet Grassland Seeding

Management Intentions

- 3.38 Wet grassland planting is proposed to provide GCN refuge and foraging habitat around the pond edge. The management of marginal vegetation should ensure that these areas retain their aesthetic function within the landscape, whilst also enhancing species diversity and valuable wildlife habitats.
- 3.39 The principal management requirement of these areas is to ensure ruderal species and succession of shrubs and tree saplings are not permitted to compromise the integrity of the grassland composition or habitat value.

Management Operations

- 3.40 Routine management will include cutting the vegetation to a height of 150mm (approx.). In order to avoid disturbance to terrestrial habitat it is recommended that areas are cut in sections (e.g. one third of the grassland area) on a weekly rotation to ensure areas of uncut vegetation are retained as refuge for amphibians and small mammals.
- 3.41 The cutting of all grass areas is to be carried out using manual methods with particular care, using 'strimmers' fitted with guards so as to protect obstacles from damage. The necessary health and safety precautions must be undertaken when cutting grass on steep slopes. All cuttings must be removed from these areas in order to prevent nutrient enrichment and retain the desired species composition, but can be stacked within suitable areas to provide additional habitat. Arisings will be lightly raked off, with great care being taken to avoid disturbance to amphibians or damaging hibernacula hidden in the grass.
- 3.42 Noxious weeds such as docks, thistles, nettles, ragwort and willowherb will be controlled by hand pulling.

Soft Landscape Element: Aquatic Planting

Management Intentions

- 3.43 Aquatic planting is proposed to ensure sufficient GCN egg laying material within the ponds, as well as support a diverse and healthy population of small mammals, amphibians, insects and waterfowl.

Management Operations

- 3.44 Macrophytes will be cut back or pulled out if they are starting to become particularly dominant, to allow space for other species to grow and avoid the pond silting up.

Constraints

- 3.45 Herbicides will not be used within close proximity to the banks of the waterbodies.

Ecological Feature: Amphibian Hibernacula

Management Intentions

- 3.46 Amphibian hibernacula are to be created and maintained in a viable condition so as to function to provide shelter and winter refuge to amphibians.

Management Operations

- 3.47 Amphibian hibernacula will be inspected yearly to ensure they are in a viable condition. Access points into the hibernacula will be maintained free of blockages (debris and silt, for example).
- 3.48 Grass or shrub atop the hibernacula and within 0.5m will be left uncut to avoid disturbance.
- 3.49 In the event their condition deteriorates to a point that maintenance cannot ensure its viability, a new hibernacula will be recreated nearby. The existing feature will be maintained in situ in its existing condition; if this is not desirable, an ecologist licensed to handle GCN (to ensure competency) will be appointed by the landowner to supervise the dismantling of the non-functioning feature.
- 3.50 Dead wood arising from any tree or hedgerow maintenance (where this cannot be left in situ) will be stacked in piles within the species-rich grassland or shrub surrounding or atop to supplement their function.

Monitoring and Review

Monitoring

- 3.51 With respect to monitoring habitat creation, an annual habitat walkover survey will be carried out for the initial five year establishment period to ensure that habitats created are viable for their intended purpose and to inform future management policies.

Review

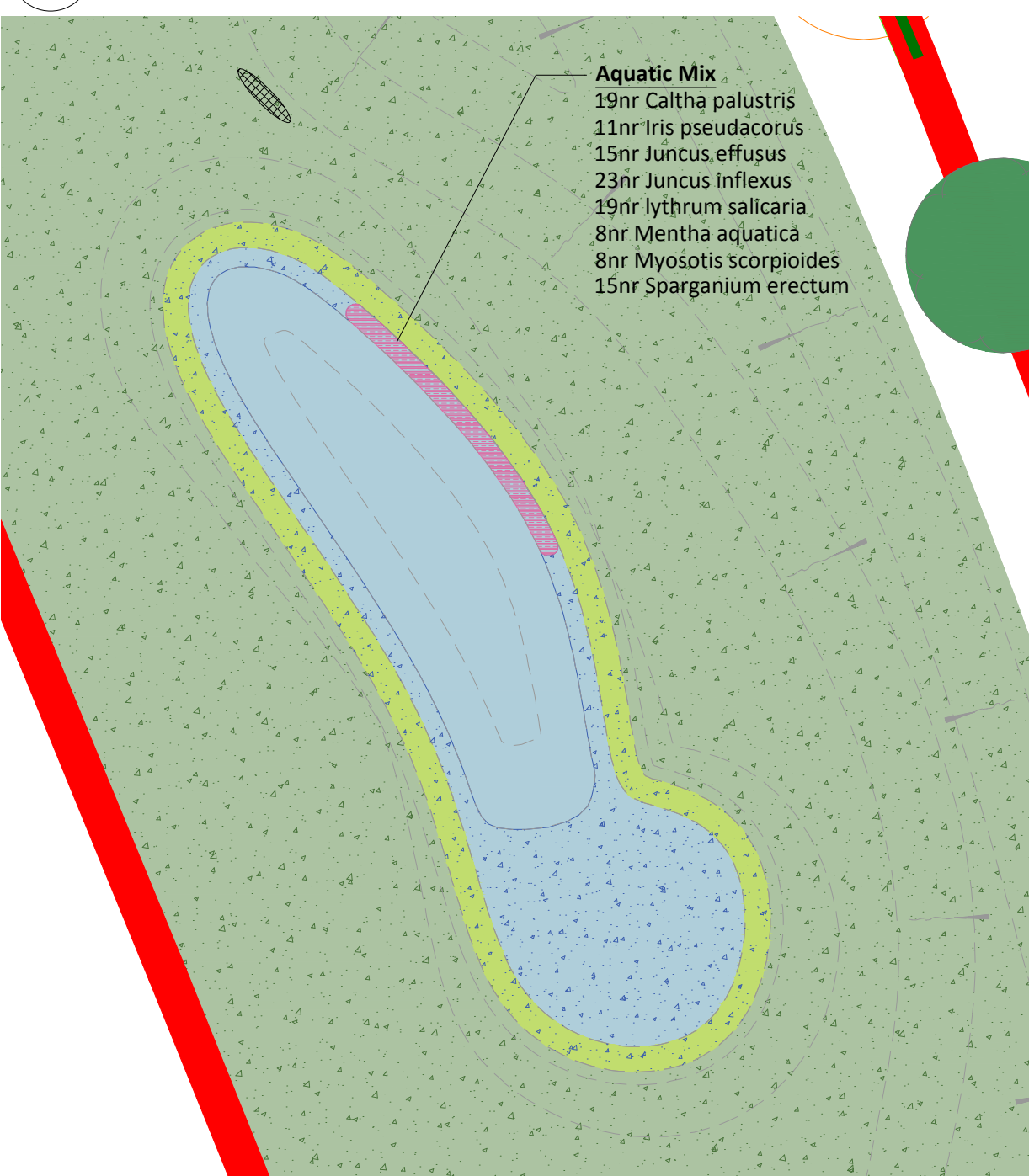
- 3.52 The Management Plan will be reviewed on an annual basis by the landowner to ensure that the plan is meeting the original management aims and objectives and responding to the developing needs of the Site.
- 3.53 Following the end of the initial five year period of this management programme, the Management Plan will be re-assessed and updated.

APPENDIX A: LANDSCAPE PROPOSALS (TEP REF: D7215.001A)

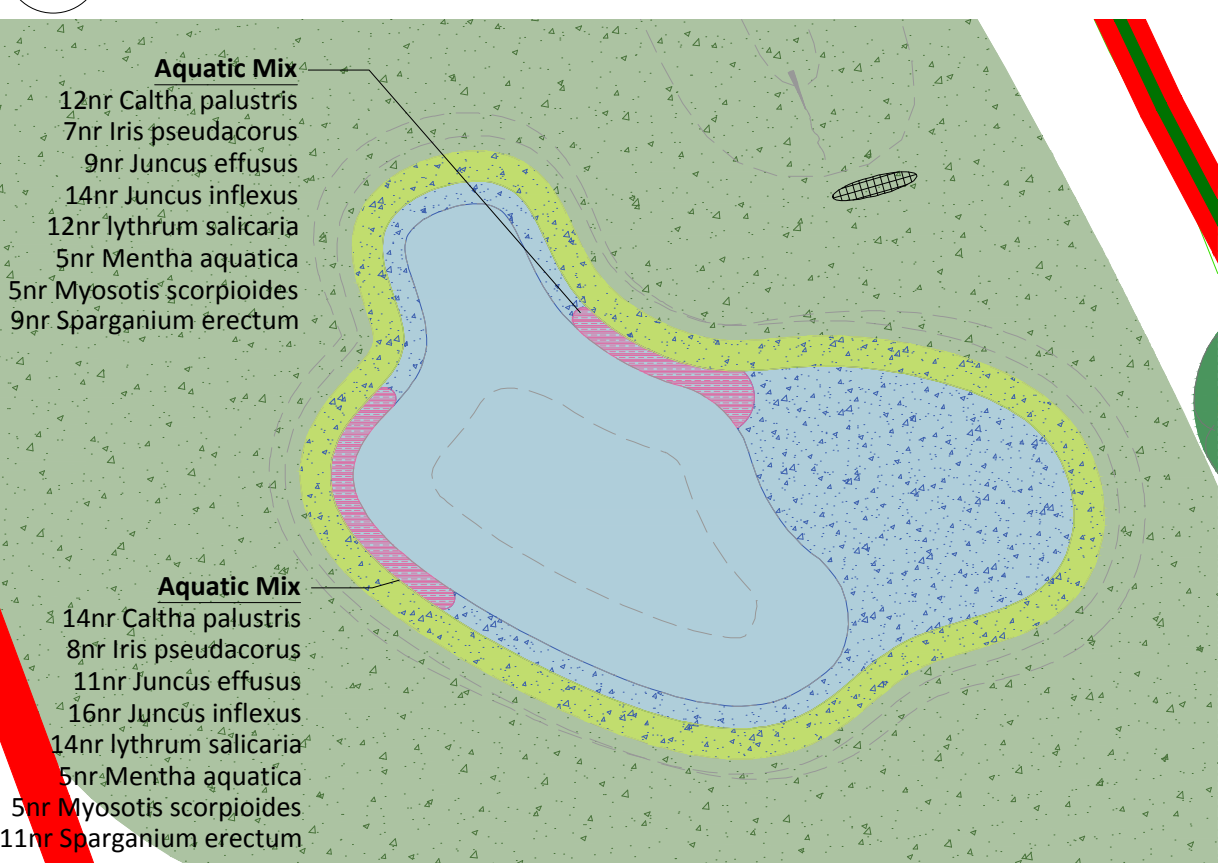
1 **Layout**
1:1000



2 **Detail A**
1:500



3 **Detail B**
1:500



The following seed mixes will be included in the development to enhance biodiversity:

Wet Meadow Mix

Supplier: Germinal Seeds Limited
Mix: RE3 Riverflood Plain/Water Meadow (MG8 Grassland)
Sowing rate: 5.00 g/m2

- 0.5% Caltha palustris (Marsh Marigold)
- 3% Centaurea nigra (Common knapweed)
- 2% Filipendula ulmaria (Meadow Sweet)
- 2% Leontodon autumnale (Autumn Hawkbit)
- 1% Leontodon hispidus (Rough Hawkbit)
- 0.5% Leucanthemum vulgare (Ox-eye Daisy)
- 0.5% Lotus corniculatus (Birdsfoot Trefoil)
- 0.5% Lychins flos cuculi (Ragged Robin)
- 2% Plantago lanceolata (Ribwort Plantain)
- 1% Prunella vulgaris (Self-Heal)
- 3% Ranunculus acris (Meadow Buttercup)
- 1% Rhinanthus minor (Yellow Rattle)
- 3% Sanguisorba officinalis (Greater Burnet)
- 2% Agrostis stolonifera (Creeping Bent)
- 26% Cynosurus cristatus (Crested Dogstail)
- 32% Festuca rubra ssp litoralis (Slender Creeping Red Fescue)
- 20% Poa trivialis (Rough-Stalked Meadow Grass)

Species Rich Meadow Mix (inc reinstatement areas)

Supplier: Germinal Seeds Limited
Mix: RE1 Traditional Hay Meadow (MG5 Grassland)
Sowing rate: 5.00 g/m2

- 1.5% Achillea millefolium (Yarrow)
- 4.5% Anthoxanthum odoratum (Sweet Vernal Grass)
- 1.5% Centaurea nigra (Common knapweed)
- 1% Leontodon hispidus (Rough Hawkbit)
- 2.5% Leucanthemum vulgare (Ox-eye Daisy)
- 3% Lotus corniculatus (Birdsfoot Trefoil)
- 2% Plantago lanceolata (Ribwort Plantain)
- 1% Agrimonia eupatorium (Agrimony)
- 1.5% Prunella vulgaris (Self-Heal)
- 1.5% Ranunculus acris (Meadow Buttercup)
- 1% Rhinanthus minor (Yellow Rattle)
- 1.5% Filipendula ulmaria (Meadow Sweet)
- 0.5% Sanguisorba minor (Salad Burnet)
- 14% Agrostis capillaris (Common Bent)
- 21% Cynosurus cristatus (Crested Dogstail)
- 14% Dactylis glomerata (Cocksfoot)
- 22% Festuca rubra ssp litoralis (Slender Creeping Red Fescue)
- 6% Festuca pratensis (Meadow Fescue)

Aquatic Planting

Specification: 1L container
Planting rate: 4n/m2

- 12.5% Caltha palustris
- 7.5% Iris pseudacorus
- 10% Juncus effusus
- 15% Juncus inflexus
- 12.5% Lythrum salicaria
- 5% Mentha aquatica
- 5% Myosotis scorpioides
- 10% Sparganium erectum

Landscape Key

- Application boundary
- Existing Features
 - Trees
 - Vegetation
 - Hedgerow
 - Waterbody
 - Fencing
 - Contours
- Proposed soft landscape features
 - Aquatic planting
 - Species-rich grassland
 - Wet grassland seeding
 - Waterbody
 - Contours
 - Low mounding (max 1:6 gradients)
 - Amphibian hibernacula

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
© Crown Copyright and database right 2010. All rights reserved.

A	Red line boundary amended	RJC	FW	30.10.18
Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Bryn Lane, Wrexham

Title
Landscape Proposals

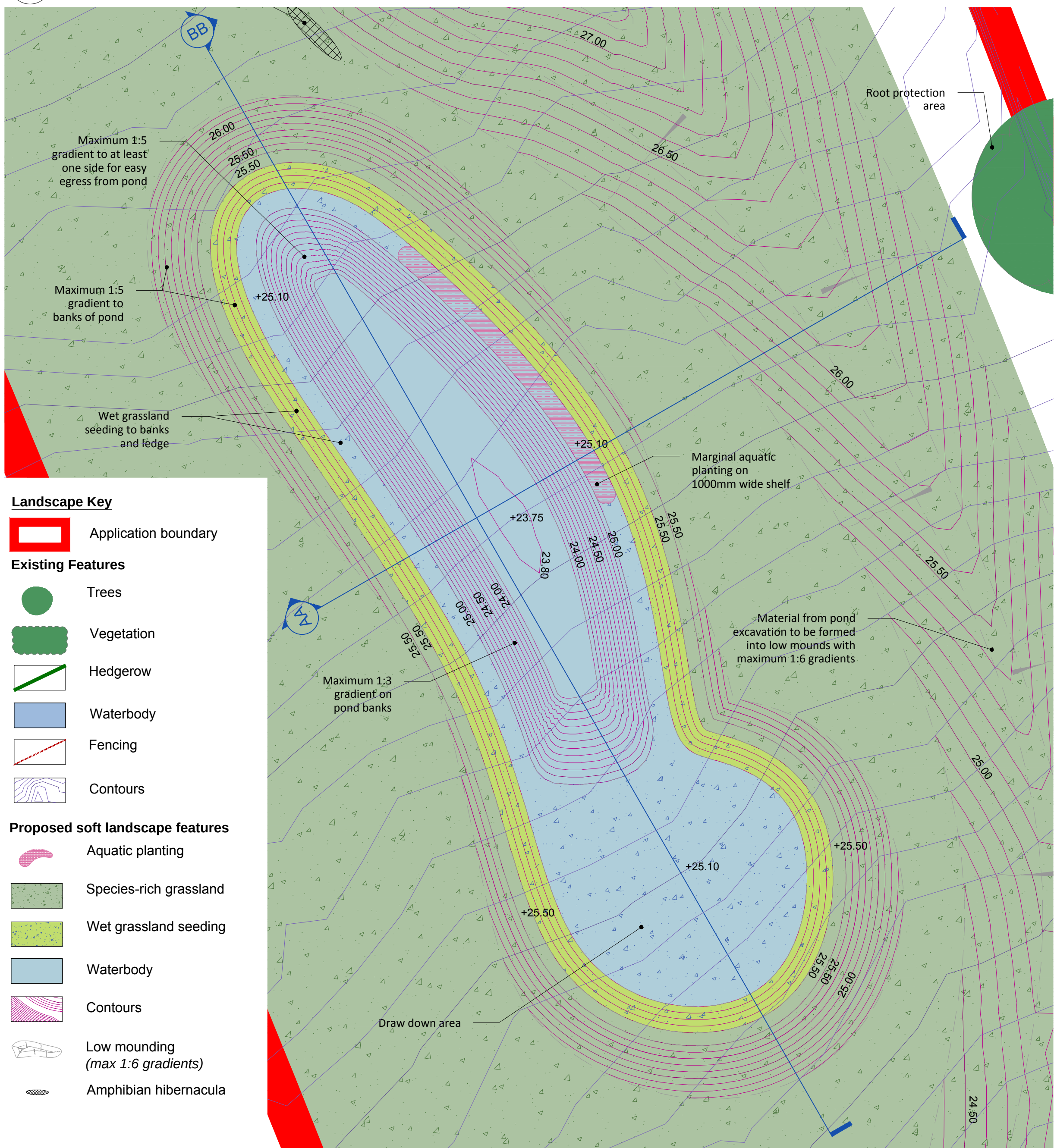
Drawing Number
D7215.001A

Scale	Date
SEE DWG @ A1	22/10/2018
Drawn RJC	Checked FW
	Approved FW

APPENDIX B: POND AND HIBERNACULA DETAILS (TEP REF: D7215.002A)

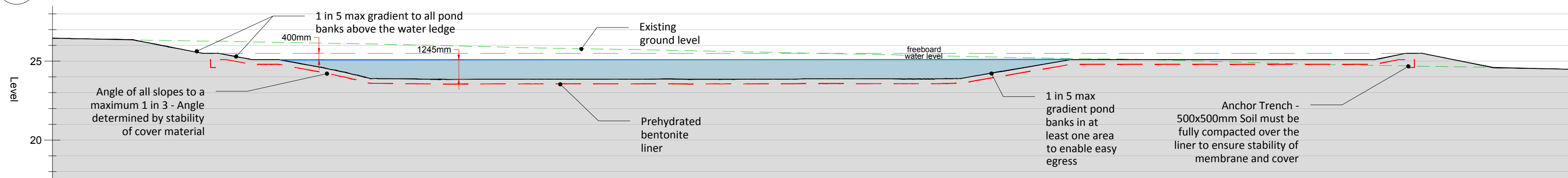
1 Detail A

1:250



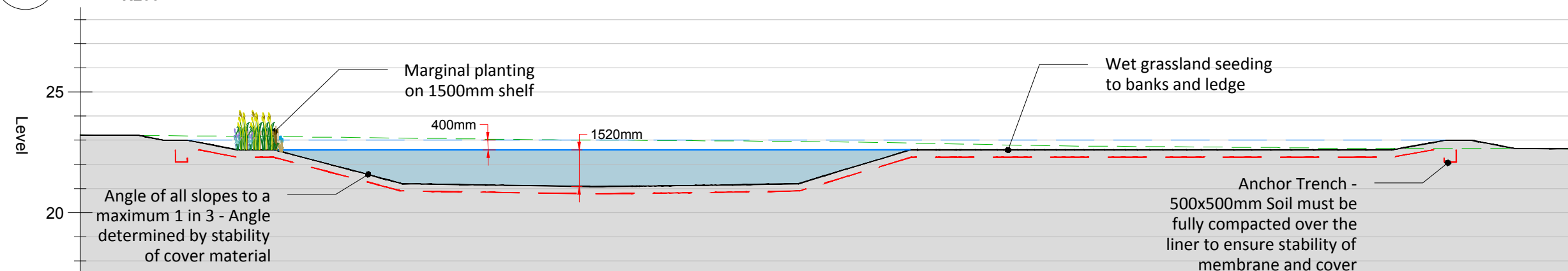
4 Section BB

1:200



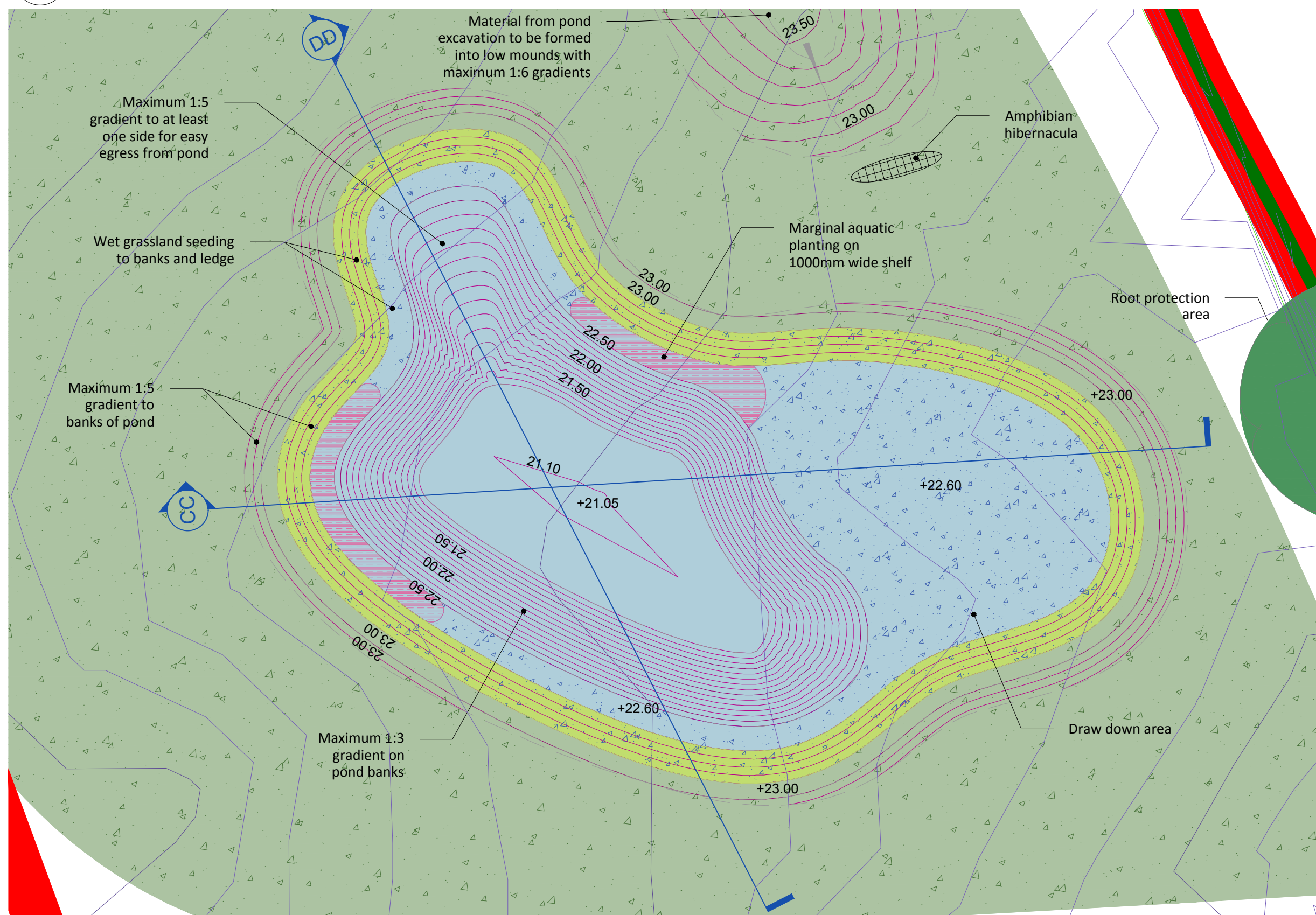
5 Section CC

1:200



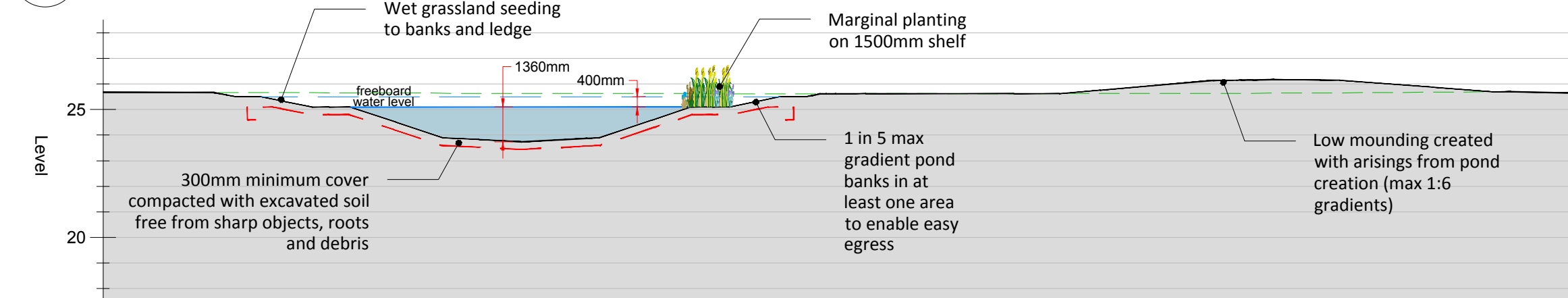
2 Detail B

1:250



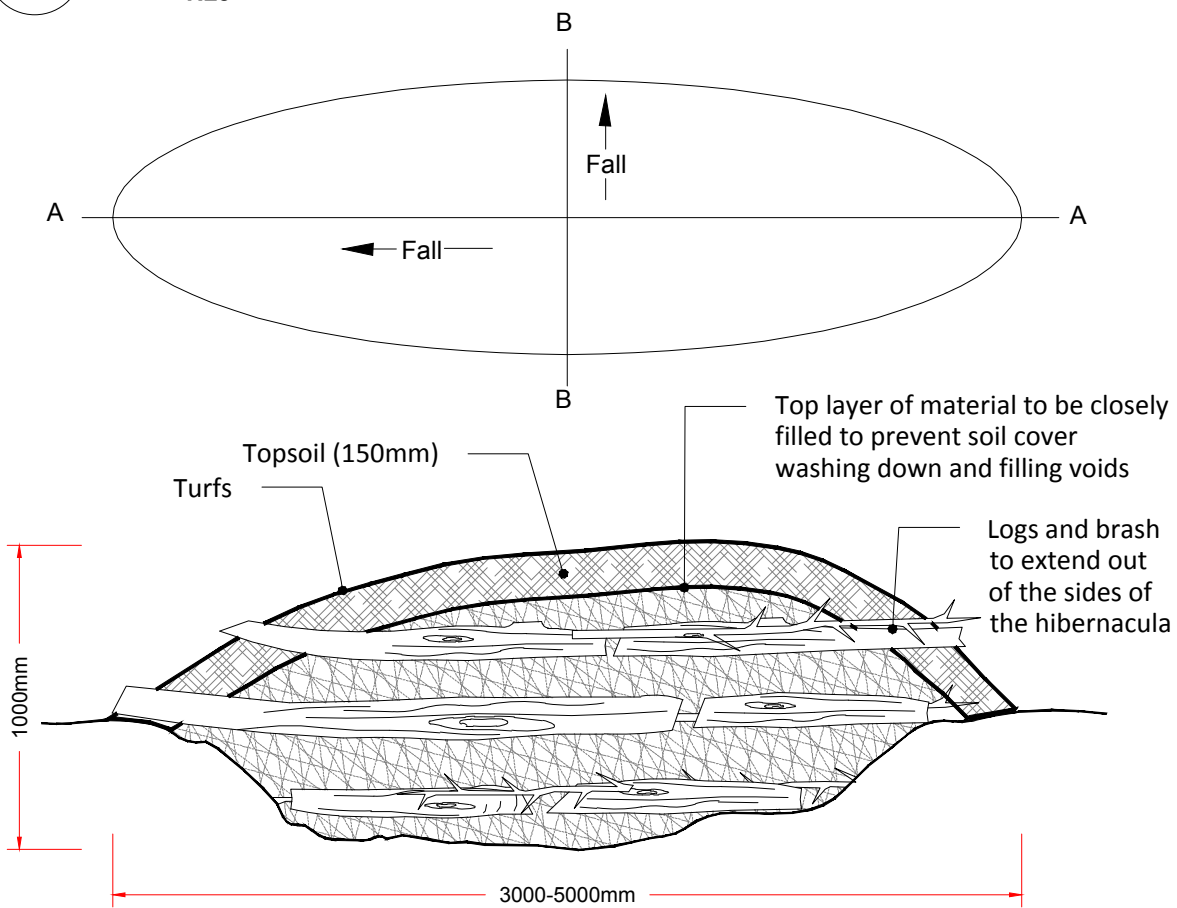
3 Section AA

1:200



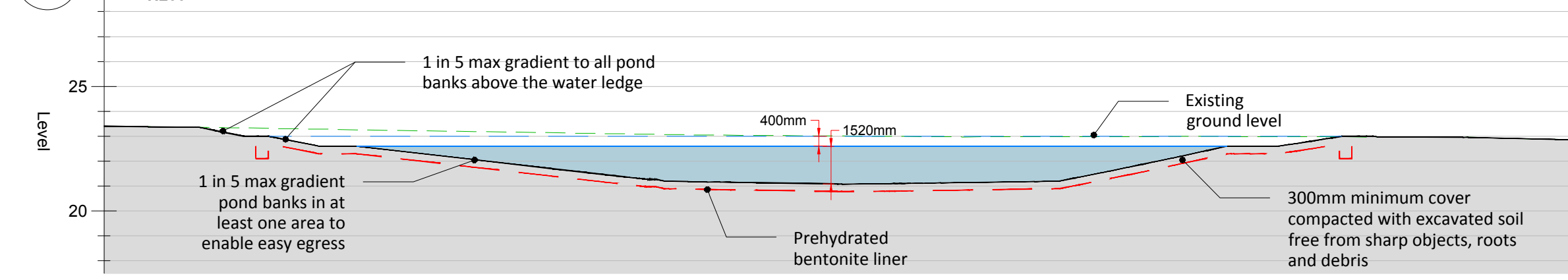
7 Amphibian hibernacula detail

1:25



6 Section DD

1:200



Notes

Earthworks Notes

- Slope gradients to be determined by geotechnical properties of the soils.
- Maximum gradients to be 1:3 for soft landscaped areas for safe maintenance
- Soil management, handling and placement to be in accordance with BS3882 and Defra guidance 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'
- No excavation works to be undertaken within root protection areas.

Pond notes

Client / Drainage engineer to determine the following prior to construction:

- Water level
- Requirement for water outlet
- Freeboard (attenuation) requirements to prevent flooding
- Safety signage

Bentonite Liner

- The subgrade should be rolled or tracked to remove any wheel ruts, footprints, or other abrupt grade changes.
- Protrusions extending more than 12mm from the subgrade surface shall either be removed, crushed, or pushed into the surface.
- The finished surface must be firm and unyielding, without abrupt elevation changes, voids, cracks, ice or standing water.
- The ground cover layer may be installed on a frozen subgrade, but the subgrade soil in the unfrozen state should meet the above specification.
- The bottom 300mm of the covering material is to be free of all debris, roots, sharp objects and any stones larger than 32mm.
- Plant: At no time during or subsequent to installation of the liner, or placing of protective layer, will plant equipment be permitted to travel on the liner or protective layer.
- Repairs: In the event of damage occurring to the RAWMAT HDB Type P1 the damaged area shall be cleaned and overlain by a patch of RAWMAT HDB Type P1 at least 150mm larger in all directions than the damaged area. The patch should have the non-woven geotextiles removed and be laid with the black side uppermost. If the damage is on a slope, the patch piece must be secured in the anchor trench.

Product: Rawmat HDB Type P
(Natural Sodium Bentonite)
High Density Bentonite

Supplier: Rawell Environmental Ltd
Carr Lane
Hoylake
Wirral
Merseyside
CH47 4AZ
Tel: 0151 632 5771
Fax: 0151 632 0252

Hibernacula notes

- The hibernacula is to be no less than 3m length x 1m width x 1m height.
- Turfs are removed prior to excavation for re-use.
- The hibernacula is to be constructed felled timber / brash and the chippings
- Vertical gaps to be no more than 50% filled with soil / vegetative matter so that voids are created for amphibians.
- Logs to be hand placed, roughly coursed with some logs placed at 45° to the ground and locally found soil / dead leaves / mulch to be placed in 300mm layers between courses.
- The mound is to be covered with 150mm topsoil and turfs.

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
© Crown Copyright and database right 2010. All rights reserved.

Rev	Description	Drawn	Approved	Date
A	Red line boundary amended	RJC	FW	30.10.18

THE ENVIRONMENT PARTNERSHIP
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Bryn Lane, Wrexham

Title
Pond and Hibernacula Details

Drawing Number
D7215.002A

Scale
SEE DWG @ A1

Date
23/10/2018

Drawn
RJC

Checked
FW

Approved
FW

APPENDIX C: LANDSCAPE MAINTENANCE SCHEDULES

Works not to be carried out in these months

Bird breeding and nesting season

Works to be carried out in these months

[illegible]

APPENDIX D: SUMMARY OF RELEVANT LEGISLATION

Summary of Relevant Legislation

The following legal obligations, among others must be considered in carrying out any management operations:

Legislation	Obligations
Health and Safety Legislation	
The Health and Safety at Work Act 1974	All operations carried out on the Site must only be undertaken by trained personnel, using methods and equipment approved by the Health and Safety Executive (HSE).
Occupiers Liability Act 1984	Management organisation must ensure that every reasonable care is taken to remove any risks to both legitimate visitors and to any trespassers. In compliance it will be necessary: To make sure that all footpaths and any other structures are safe; To remove any hazardous objects; and To conduct an annual safety audit in order to identify any further hazards.
Environmental Legislation	
Conservation of Habitats and Species Regulations (as amended) (2017)	The Habitat Regulations assign a greater level of protection to a variety of native species of animals and plants listed, which are known as European Protected Species (EPS).
Wildlife and Countryside Act 1981	There is an obligation to comply with legislation for UK species protected (including amphibians, reptiles and bats) under this Act.
Environmental Protection Act 1990	There is an obligation to keep the Site free from litter and refuse.
Countryside and Rights of Way Act 2000	Imposes a new right of access on foot to registered common land and other areas of 'open countryside' which under certain circumstances allows access without being confined to footpaths.



HEAD OFFICE

Genesis Centre,
Birchwood Science Park,
Warrington
WA3 7BH

Tel: 01925 844004
E-mail: tep@tep.uk.com

**MARKET
HARBOROUGH**

No. 1 The Chambers,
Bowden Business Village,
Market Harborough,
Leicestershire,
LE16 7SA

Tel: 01858 383120
E-mail: mh@tep.uk.com

GATESHEAD

Office 26, Gateshead
International Business
Centre,
Mulgrave Terrace,
Gateshead
NE8 1AN

Tel: 0191 605 3340
E-mail: gateshead@tep.uk.com

LONDON

8 Trinity Street,
London,
SE1 1DB

Tel: 020 3096 6050
E-mail: london@tep.uk.com

CORNWALL

4 Park Noweth,
Churchtown,
Cury,
Helston
Cornwall
TR12 7BW

Tel: 01326 240081
E-mail: cornwall@tep.uk.com
