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## **GREAT CRESTED NEWT METHOD STATEMENT & POND SPECIFICATION**

**At**

### **Plot 3A – Ecological Compensation & Enhancement Area**

Wrexham Industrial Estate

Bryn Lane

Wrexham

LL13 9UT

**NGR: SJ 39675 50371**

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|---------------|-------------------------------------------------|
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|                |                                |
|----------------|--------------------------------|
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# 1 INTRODUCTION

## 1.1 Author and qualifications

This report is written and compiled by Tom Kenwright BSc MSc ACIEEM, UES Senior Ecologist. Tom is licensed by Natural Resources Wales to disturb, take and handle great crested newts (GCNs) *Triturus cristatus* under licence number S092335/1.

The report has been verified by Toby Hart BSc MCIEEM PIEMA, UES Managing Director. Toby is licensed by Natural Resources Wales to disturb, take and handle GCNs under licence number S086784/1.

## 1.2 Proposed development and previous survey information

The proposed development is for ecological enabling works on land in connection with a proposed adjacent employment development known as 'Kingmoor', for which a separate planning application has been submitted, which is hereby referred to as the "Main Application" in this document.

The site for the enabling works is in the area referred to as the "Eastern Field" but the application boundary also includes track access from the west and through the Main Application site as there is no vehicular access to the field from the east. Most of the course of the access track is along an existing route and hardstanding within the site and an existing bridge over a watercourse, with only minor works required to create a stable surface required in isolated areas to reach the Eastern Field.

The proposed enabling works are all contained within the Eastern Field and are for:

- 20no. new ponds to be created and retention of one existing pond (21no. total)
- 2no. new ditches to be created

GCN presence / absence, population size class assessment and eDNA surveys were undertaken of the Main Application site and surrounding ponds by UES across March to June 2022 (see report reference UES03448/09).

During the surveys a medium population of GCNs was recorded across all surveyed onsite and offsite ponds, with a combined peak adult count of forty-nine. However, access was not granted to several offsite ponds, therefore it is likely the GCN population in the area will be higher.

The peak count of adult GCNs onsite was thirty-three individuals which infers that the development site hosts a "medium" GCN population. Of the onsite ponds found to contain GCNs, only one is due to be removed to facilitate the proposals on the Main Application site.

As GCNs are known to be present within the Eastern Field where the enabling works will take place, a European protected species (EPS) licence will need to be granted by Natural Resources Wales to allow the works to commence. This EPS licence can only be granted once planning permission has been secured and will need to be in place prior to the start of any works on site. Natural Resources Wales aim to process licence applications within 30 working days.



### **1.3 Report objectives and structure**

This document sets out all of the necessary procedures and mitigation measures to avoid and reduce impacts on GCNs, and other common amphibians, and to avoid any potential breaches of protected species legislation. This report should be read in conjunction with Appendices 1 – 2.



## 2 IMPACT ASSESSMENT

### 2.1 Impacts without mitigation

GCN population size class assessment surveys showed that the Main Application site supports a medium-sized population and the single pond within the Eastern Field was found to support a max count of six individuals. However, it is considered that the GCNs using the site are part of a wider meta-population within the industrial estate and the surrounding landscape.

The proposals for this application solely relate to habitat creation, however there remains some, albeit limited potential, to adversely impact individual GCNs. These works will be localised to a small area of hedgerow removal and excavation works for the creation of ponds and ditches. There will be no loss of GCN habitat as a result of the proposals, which are solely being undertaken for the creation of GCN breeding habitat, which will be managed long term with an emphasis on its suitability to support GCNs.

Without mitigation, the development could have the following impacts on GCNs and their associated habitats:

- Killing or direct harm
- Disturbance

### 2.2 European Protected Species mitigation licence

Due to the potential impacts on GCNs without mitigation, works will need to proceed under the mitigation measures detailed in Section 3 of this report. Works will not commence until an EPS licence has been obtained from Natural Resources Wales.

The information provided below will be used by Natural Resources Wales to determine whether the proposed activity affecting the European protected species meets the requirements of Regulations 55(2)(e), 55(9)(a) and 55(9)(b) within The Conservation of Habitats and Species Regulations 2017. These are known as the 'purpose', 'no satisfactory alternatives' and 'favourable conservation status' tests.

#### 2.2.1 Consideration of Regulation 55(2)(e): The 'Purpose' Test

*Regulation 55(2)(e) "in the interests of preserving public health or public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".*

Whilst the proposals are linked to the Main Application, this planning application and EPS licence application should be considered in isolation as the proposed works are solely being undertaken for the purpose of habitat creation and enhancement. The approval of this application and a subsequent EPS licence does not provide approval for any other works associated with the Main Application, which could have an adverse impact on GCNs or their habitat. As this application is only for the creation and enhancement of habitat, it is considered to pass this licencing test for imperative reasons of overriding public interest with beneficial consequences of primary importance for the environment.



### **2.2.2 Consideration of Regulation 55(9)(a): The ‘No Satisfactory Alternative’ Test**

*Regulation 55(9)(a) “that there is no satisfactory alternative.”*

There is considered to be no satisfactory alternative as there is no other land within the developer’s ownership that could be used for the creation of such a large area of habitat and the large number of proposed ponds. Additionally, the site needs to be in close proximity to the Main Application site as it will act as the receptor site for the translocation of GCNs and other amphibians.

### **2.2.3 Consideration of Regulation 55(9)(b): The ‘Favourable Conservation Status’ Test**

*Regulation 55(9)(b) “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”*

The mitigation measures detailed in this document will ensure that GCNs are safeguarded throughout the proposed works. The proposed works that have the potential to adversely impact individual GCNs will be localised to a small areas of hedgerow removal and excavation works for the creation of ponds and ditches. There will be no loss of GCN habitat as a result of the proposals, which are solely being undertaken for the creation of GCN breeding habitat, which will be managed long term with an emphasis on its suitability to support GCNs. There will be no fragmentation or isolation as a result of the proposed development, so the movement of GCNs within the local area will not be detrimentally affected.



### 3 MITIGATION MEASURES

As GCNs are known to be present on site, an EPS mitigation licence will need to be granted by Natural Resources Wales to allow the works to commence. This EPS licence can only be granted once planning permission has been secured and will need to be in place prior to the start of any works on site. Natural Resources Wales aim to process licence applications within 30 working days.

It is considered that fencing and trapping of the proposed working area is not necessary given that the associated works will not involve large scale habitat destruction or removal and clearance and excavation works will be localised and will solely involve habitat creation and enhancement works, with no construction related activities. The installation of fencing around the site boundaries would isolate these areas from use by GCNs (and other amphibians) within the wider meta population within the surrounding landscape and would act as barriers to the movement of amphibians which may be commuting across the site. It is considered that the potential adverse impacts of trapping and translocating individuals, reducing availability of foraging and breeding opportunities and the severance of commuting corridors associated with the installation of fencing is significantly greater than the potential risks to individual GCNs due to the low likelihood of amphibians being present within the localised areas at the time of the works. Despite this, there remains some residual risk of individual GCNs being impacted by the works. As such, the following mitigation measures will be implemented to protect amphibians in the unlikely event that they are present within the working areas at the time of the works:

- Prior to the start of any works or access by any vehicles (other than to mow / cut the grass), a toolbox talk will be given to all staff and contractors. The talk will include species identification, ecology and legal protection of UK amphibians.
- Prior to the use of any plant or heavy machinery on site, a licenced ecologist will fingertip search any suitable habitat along the proposed access route on to site to search for cavities or burrows that could be used by sheltering amphibians.
- The removal of the small section of hedgerow to allow access by machinery and all excavation works associated with pond or ditch creation will be overseen by an appropriately licenced and experienced ecological clerk of works. The ecological clerk of works will also undertake a fingertip search of all proposed excavation areas and any proposed temporary spoil storage areas.
- Prior to the removal of the small section of hedgerow, an appropriately licenced ecologist will undertake a fingertip search of the area to be removed.
- All areas of grassland on site will be mown or stumped to a height of 10cm at least 24 hours prior to the start of any excavation or ground clearance works. This is to encourage amphibians (and other wildlife) to disperse from the working area prior to the commencement of works. The mown / cleared area will then be maintained with a short sward until the works on site have been completed. Any grass cuttings will be collected or removed from the site prior to the start of works. If cuttings cannot be removed from site, they can be stored in piles at the boundaries of the site and outside of the proposed working areas.
- If any excavations are left open overnight (e.g. ponds deep ponds that have not yet filled with water) they will either be designed and shaped so that amphibians (and other



wildlife) can escape if they fall in, or a plank of wood will be provided at a 45° angle to allow wildlife to escape.

Any GCNs or other amphibians observed within the proposed working will be translocated by hand to an area of suitable habitat (the base of hedgerows and areas of dense scrub) at the site boundaries.

The above measures will also ensure the protection of all common amphibian species using the site.



## **4 COMPENSATION MEASURES AND MONITORING**

### **4.1 Compensation**

Whilst the proposals are linked to the Main Application, this planning application and EPS licence application should be considered in isolation as the proposed works are solely being undertaken for the purpose of habitat creation and enhancement. The approval of this application and a subsequent EPS licence does not provide approval for any works associated with the Main Application, which could have an adverse impact on GCN habitat. As such, there will be no overall loss of GCN habitat as a result of the works proposed within this application, which will have a significant positive outcome on the availability of GCN habitat on site and on the local population of GCNs.

Full details of the proposed aquatic habitats that are to be created are detailed below in section 5. In summary, a total of twenty ponds and two ditches are to be created, many of which are being created to provide breeding opportunities for GCNs. Full details of all other habitat creation (terrestrial habitats such as hibernacula, wildflower grassland, hedgerow and scrub planting) and any future management will be detailed within a Landscape and Ecology Management Plan (LEMP), submitted as part of the Main Application and can be secured through a suitability worded planning condition. The proposed aquatic habitat creation and management will also form part of the EPS mitigation licence application and will therefore be agreed with Natural Resources Wales.

### **4.2 Monitoring**

As there will be no large-scale translocation of GCNs or the destruction of GCN habitat, no monitoring surveys will be undertaken as part of this specific licence application. However, monitoring surveys of the newly created ponds will be undertaken as part of the separate GCN EPS mitigation licence that will be secured to allow the trapping and translocation of GCNs from the adjacent development site: following the completion of the trapping and translocation exercise, the retained and newly created ponds will be subject to monitoring surveys to assess whether the GCN population has responded favourably to the mitigation, and to inform ongoing habitat management. As the impacts of the proposed development are considered to be 'high' and the site supports a medium population, the monitoring will need to take place over a six-year period, starting the next available survey period following the completion of the trapping and translocation exercise. Monitoring will involve population size class assessment surveys, utilising the industry standard bottle trapping, netting and torching methodology, for all retained and newly created ponds, involving six survey visits each year across mid-March and June (inclusive).

The results of the monitoring will be submitted annually to Natural Resources Wales and the local ecological records centre COFNOD. The results will also be used to identify the need for remedial measures and changes to the management plan to benefit GCNs.



## 5 POND AND DITCH SPECIFICATION

A total of twenty ponds will be created as part of the proposals. In addition, the single pond that is currently present within the north-western section of the site will be retained.

The ponds are primarily being designed and created to provide suitable breeding opportunities for GCNs, however some of the ponds will be designed and managed to target other species.

The ponds currently present within the proposed development are in different stages of succession and provide different niches and conditions, supporting a greater diversity of species than they would if they were all of the same age, size and depth. The existing pond within the Eastern Field is currently in a late stage of succession and is largely dry, with a small area of standing water and significant cover from willow *Salix spp.* scrub. Ephemeral, late-stage ponds provide optimal conditions for many aquatic invertebrate species, a nationally scarce example is the mud snail *Omphiscola glabra*. This pond will largely be retained and subject to minimal management. Some selective scrub clearance however will be undertaken every three years, to ensure that no more than 75% of the pond's margins are heavily shaded, preventing the pond from drying completely and failing to function as an aquatic habitat.

As the primary purpose of the proposals is to provide breeding opportunities for GCNs, the proposed ponds will largely share key design features, however some will be designed to provide different conditions and ecological niches, targeting a range of species. Most ponds will have a maximum depth of 1m to provide optimum conditions for GCNs. However, some deeper and shallower ponds will be created to maximise the variety of ecological niches and provide a range of micro habitats:

Ponds 1, 2, 16 and 17 – Maximum depth 2m

Pond 5 – Maximum depth 0.75m

Ponds 6-9 – Maximum depth – 0.5m

Ponds that hold water until late summer to allow GCN larvae to metamorphose and leave the water, but dry annually or every few years, are of the greatest value to GCNs as the regular drying ensures that fish cannot survive. However, during periods of extended dry weather, shallow ponds can rapidly lose water and dry up completely, potentially killing all newt larvae before they can metamorphose. This isn't considered to be a significant issue if a standalone event, as GCNs can have long-life spans and one year of breeding failure should not be catastrophic to the survival of the population. However, due to a trend in increasing annual temperatures, the scheme has been designed to include a range in ponds depths that will ensure suitable breeding habitat remains at all times. This will give the GCNs present a greater resilience to changing environmental conditions. Shallower ponds and deeper ponds are to be created as these are preferred by common frog *Rana temporaria* and common toad *Bufo bufo*, which prefer to breed in water at a depth of less than 0.5m and more than 1.5m, respectively. In addition, a range of pond depths will ensure the site can support a greater range of aquatic and marginal plants and aquatic invertebrates, many of which specialise in shallow water habitats, or those that are more susceptible to drying.

All proposed ponds will be lined with puddling clay to ensure that they retain water throughout the year, or throughout most of the year in the case of the shallower ponds. If at the time of creation, the ground conditions are found to already be clay-rich, it may be possible to allow the ponds to fill up naturally without lining with clay. This will be informed by the contractor responsible for the pond creation works.



Most ponds will be designed to have a shallow edge that slopes down at a 15° angle or less into a 15cm deep shelf. This shelf will extend for 50cm before dropping into a 50cm deep and 50cm wide shelf. This will then grade as gently as possible so that the centre of the pond reaches the maximum depth detailed above. Ponds with a different design to this are as follows:

Pond 5 – There will be a 20cm deep and 1m wide shelf that gently slopes into the centre of the pond which will have a depth of 0.75m. The northern margin of the pond will have a shallow slope of less than 15° which will form the drawdown zone. All other margins of the pond will have steeper sides dropping into the 20cm shelf. Ponds 6-9 will not have shelved margins and will instead have gradually sloping margins leading into the centre of the ponds at a depth of 0.5m.

Pond 6-9 – These ponds will not have shelved margins and instead will have gradually sloping margins leading into the centre of the pond at a depth of 0.5m, forming shallow pools.

Pond 10 – There will be a 20cm deep shelf with a width of 0.75m along the entire margin of the pond, which will then slowly grade into the centre of the pond. The north-eastern margin of the pond will have a shallow slope of less than 15° which will form the drawdown zone and lead into the 20cm deep shelf. All other margins of the pond will have steeper sides dropping into the 20cm shelf.

To ensure structural diversity and sufficient egg-laying material for breeding GCNs are immediately available, the drawdown zone and the shelves within Ponds 1, 2, 5, 10, 14, 19 and 20 will be planted with the following marginal and emergent species:

- Water mint – *Mentha aquatica*
- Water forget-me-not – *Myositis scorpioides*
- Brooklime – *Veronica beccabunga*
- Watercress - *Nasturtium officinale*
- Yellow iris - *Iris pseudacorus*
- Reed sweet-grass - *Glyceria maxima*
- Greater pond sedge - *Carex riparia*
- Cypress sedge - *Carex pseudocyperus*

In the longer term the newly created ponds will also support many other plant species as part of a process of natural succession.

In addition to the ponds, two ditches will also be created as part of the proposals. At this stage, it cannot be determined if these ditches will hold sufficient water to provide suitable breeding opportunities for GCNs, however there remains some potential and they will still increase the ecological niches present on site, increasing the availability of plants and invertebrate species and increasing the overall value.

The southernmost ditch will be a standalone feature that does not connect to any other waterbodies. The northernmost ditch will connect to Pond 1 and is more likely to hold standing water suitable to support breeding GCNs and other amphibians.

To further vary the ecological niches present, the ditches will vary in their depth and the gradient of the banks. The northern ditch will have a depth of 1m and will generally have steep banks with a gradient of approximately 60°. This ditch will have a channel width (between the top of each bank) of 1.5m. The southern ditch will be shallower and whilst having the same width it will have a maximum depth of 0.5m with shallow sided banks.



The ditches will not be planted and will instead be allowed to be naturally colonised by emergent, marginal and aquatic plant species.

Full details of the future management of the aquatic and terrestrial habitats on site will be detailed within the LEMP submitted as part of the Main Application.



## 6 CONCLUSION

GCN population size class assessment surveys showed that the Main Application site supports a medium-sized population and the single pond within the Eastern Field was found to support a max count of six individuals. However, it is considered that the GCNs using the site are part of a wider meta-population within the industrial estate and the surrounding landscape.

The proposals for this application solely relate to habitat creation and will involve the creation of two ditches and twenty ponds. The single pond currently present on site will be retained and subject to enhancement measures.

Due to the presence of GCNs on site and within the local area, there remains some, albeit limited potential for the proposed works to adversely impact individual GCNs. These works will be localised to a small area of hedgerow removal and excavation works for the creation of ponds and ditches. There will be no loss of GCN habitat as a result of the proposals, which are solely being undertaken for the creation of GCN breeding habitat, which will be managed long term with an emphasis on its suitability to support GCNs.

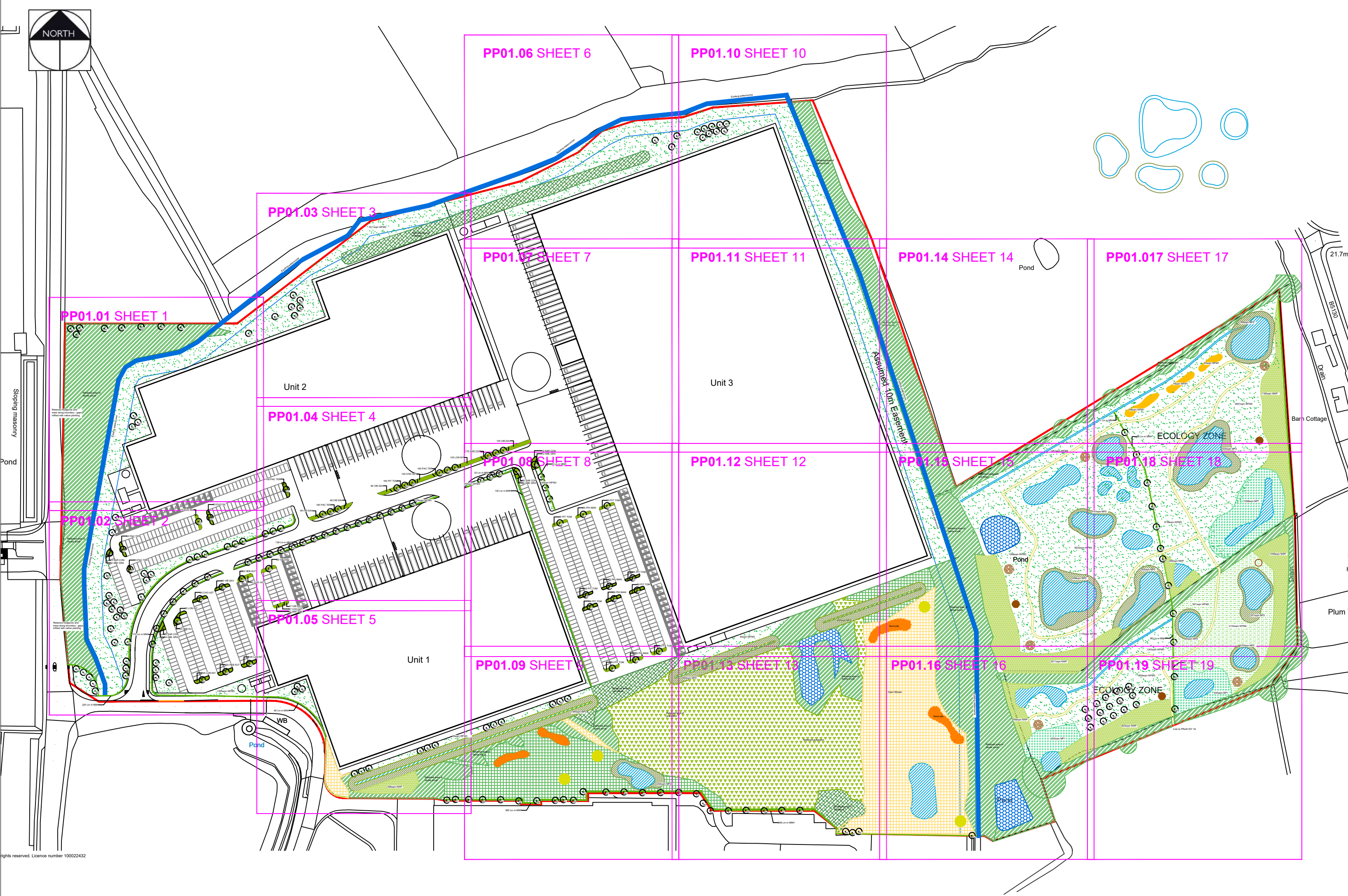
The measures detailed in this document will reduce the risk of harm to GCNs and other amphibians to negligible levels. They ensure that site staff have the knowledge and processes required to avoid breaches of legislation. No works will take place until an EPS mitigation licence is obtained from Natural Resources Wales.

The creation of these ponds and ditches will provide an increased availability of potential breeding opportunities, enhancing the sites suitability and carrying capacity to support GCNs. There will be no fragmentation, isolation or long-term impacts on amphibians in the local areas as a result of the proposed development. As such, it is considered that the proposals will have a significant positive benefit on GCNs and other amphibians.



## **APPENDICES**

### **Appendix 1 – Proposed pond and ditch creation plan**



SPECIFICATION NOTES

1. General

This plan to be read in conjunction with the following documents:

- Ecology Reports by UES
- Drainage Strategy
- And any other supporting information

2. General Landscaping

Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837:2012 during construction. Proposed planting under existing trees subject to sufficient space in root areas.

3. Preparation of Planting Beds

- Rubbish, concrete, metal, glass, decayed vegetation are to be removed and disposed of off site.
- Stones with the largest dimension exceeding 40mm are to be removed from planting beds and disposed of off site.
- Substances injurious to plant growth including subsoil, rubble, fuel and lubricants should be removed and disposed of off site.
- Remove any existing weed growth.
- Areas of large root are to be grubbed up without undue disturbance of surrounding soil and adjacent areas.
- All site preparation, planting and maintenance to comply with BS 4429

4. Soil

Imported topsoil to be a good quality loam to BS 3882:2015. All topsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating ameliorant's as specified and/or as indicated by analysis and/or as directed by the Landscape Architect. Hand cultivation's shall be carried out to achieve the required finish on areas where machine cultivation is impossible i.e adjacent to kerbs, manholes and footpath junctions etc. Surplus plant matter, rubbish and surface stones having any dimension greater than 25 mm shall be collected and removed from the site. Existing topsoil to be stripped and re-used if suitable as per specification. All work to be carried out in line with BS 3882:2015 and DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009).

5. Plants

General plant stock to conform to BS 3936, advanced nursery stock and planting to BS 4428. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged (refer to relevant sections of BS3936 rts 1-4 'Specification of Nursery Stock'). All planting operations to be in general compliance with BS4428: 1989 'Code of Practice for general landscape operations (excluding hard surfaces)'.

Carry out all planting while soil and weather conditions are suitable:

- Do not plant during periods of frost or strong winds. Plant only during the following periods:
- Container grown and root ball plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided
- Bare Root stock to be planted November to March.

All plants to be planted in cultivated planting beds at densities shown in plant schedule, in pits of min. size 0.3m x 0.3m x 0.3m deep so as to accommodate full root spread, backfilled with 80% clean topsoil and 20% compost and 20g granular fertilizer. All shrub beds to be in min. 450mm good quality, well prepared soil.

See Plant Schedule for species palette. Bed composition, arrangement and setting-out to be approved by Landscape Architect before work commences. Topsoil depth to be 450mm for shrub planting and 150mm for grass.

Native Hedgerow - Stock to be planted in double rows, 5 per linear metre. Trees to be protected with a 600mm spiral rabbit guard and staked. To be kept free of weeds during establishment using secured mulch matting. Bare root plants to be notch planted to depth of root collar in accordance with BS4428.

6. Trees

Trees shown on plan to be planted with species as labelled or similar approved. Do not substitute species, variety and form or reduce the specified number/density of plants without prior agreement. Note sizes shown are minimum. All trees to be planted in pits 2m x 2m x 1m deep, backfilled with 80% clean topsoil with 15% peat free tree and shrub planting compost and 5% Tree Growth Enhancer 'GroChar', including 100g granular fertilizer. Base of pit to be filled with a Terram Geotextile layer on 150mm drainage layer consisting of 20mm nominal size free draining pea gravel. Water-in heavily after planting and surface bark chippings 75mm depth. All trees to be triple staked with timber cross bar and soft ties. Any necessary tree works are to be carried out by an approved tree surgeon to BS 3998. All trees to be protected with 600mm spiral rabbit guard.

All work to be carried out in line with BS 3882:2015 and DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009).

7. Mulch

General purpose mulch prepared in accordance with PAS 100. All planting areas and tree pits to be mulched with 75mm (settled depth) bark mulch. Sample of mulch to be approved by Landscape Architect.

8. Wildflower Meadow Grass

Seeding shall be carried out during appropriate seasons and while soil and weather conditions are suitable for the relevant operations. Hand tools shall be used around trees, plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to seeding on prepared, levelled soil (minimum 150mm depth) in the areas indicated on the drawings. Sown to manufactures guidance and in accordance with Ecology recommendations.

9. Replacement of trees and vegetation

The contractor shall replace all plants/trees that have failed to thrive (show growth or display foliage) during the growing season after planting (including plants damaged during maintenance operations). Replacements to match original specification or similar size/species approved by the Landscape Architect. In particular, if any of the boundary vegetation, including those marked for retention, are to be replaced with similar size and species if they die within 5 years.

| PLANTING SCHEDULE |      |                                        |       |           |                                                                     |
|-------------------|------|----------------------------------------|-------|-----------|---------------------------------------------------------------------|
| Trees             |      |                                        |       |           |                                                                     |
| Qty               | Code | Name                                   | Girth | Height cm | Specification                                                       |
| 25                | Ac   | Acer campestre                         | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 37                | Bp   | Betula pendula                         | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 18                | Cb   | Carpinus betulus                       | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 7                 | Cf   | Carpinus betulus 'Frans fontaine'      | 14-16 | 400-600   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 14                | Fs   | Fagus sylvestris                       | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 17                | Ls   | Liquidambar styraciflua 'Lane Roberts' | 14-16 | 400-450   | RB 3x; Semi-mature; clear stem minimum 200cm                        |
| 3                 | Md   | Malus domestica 'Discovery'            | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 3                 | Ms   | Malus domestica 'Sunset'               | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 12                | Pi   | Pinus sylvestris                       |       | 300-350   | Leader with laterals; feathered to the base                         |
| 3                 | Pd   | Prunus domestica 'Victoria Plum'       | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 3                 | Pa   | Prunus avium 'Plena'                   | 10-12 | 300-350   | RB 2x; Heavy Standard; clear stem minimum 175-200cm; 4 breaks       |
| 8                 | Pc   | Pyrus calleryana 'Chanticleer'         | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 3                 | PcC  | Pyrus communis 'Conference'            | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 3                 | PcB  | Pyrus communis 'Beth'                  | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 175-200cm; 5 breaks |
| 14                | Qr   | Quercus robur                          | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 7                 | Qu   | Quercus rubra                          | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 9                 | Sa   | Sorbus aucuparia                       | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |
| 21                | Tc   | Tilia cordata 'Greenspire'             | 14-16 | 400-450   | RB 3x; Extra heavy standard; clear stem minimum 200cm; 5 breaks     |

| NWP - Native Woodland Planting (random mix 1 per m <sup>2</sup> ) |       |                    |         |            |                   |                               |
|-------------------------------------------------------------------|-------|--------------------|---------|------------|-------------------|-------------------------------|
| Total Area On Site (m <sup>2</sup> )                              |       |                    |         |            |                   |                               |
| 5925                                                              |       |                    |         |            |                   |                               |
| Qty                                                               | % Mix | Name               | Size cm | Root Cond. | Density / Spacing | Specification                 |
| 593                                                               | 10    | Betula pendula     | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |
| 593                                                               | 10    | Corylus avellana   | 60-90   | B          | 1/m <sup>2</sup>  | Transplant (seed-raised), 1+1 |
| 889                                                               | 15    | Crataegus monogyna | 60-90   | B          | 1/m <sup>2</sup>  | Transplant (seed-raised), 1+1 |
| 296                                                               | 5     | Ilex aquifolium    | 40-60   | 2L pot     | 1/m2              | Leader with laterals          |
| 593                                                               | 10    | Sorbus aucuparia   | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |
| 593                                                               | 10    | Prunus avium       | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |
| 296                                                               | 5     | Prunus spinosa     | 60-90   | B          | 1/m <sup>2</sup>  | Transplant (seed-raised), 1+1 |
| 889                                                               | 15    | Quercus robur      | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |
| 296                                                               | 5     | Rosa canina        | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |
| 889                                                               | 15    | Viburnum opulus    | 60-90   | B          | 1/m2              | Transplant (seed-raised), 1+1 |

| MNH - Mixed Native Hedge        |       |                       |            |            |                   |                               |
|---------------------------------|-------|-----------------------|------------|------------|-------------------|-------------------------------|
| Total Length On Site 1772 Lin m |       |                       |            |            |                   |                               |
| No. of Plants                   | % Mix | Species               | Size in cm | Root Cond. | Density / Spacing | Specification                 |
| 8860                            | MNH   | Mixed Native Hedge    |            |            |                   |                               |
| 1329                            | 15    | Crataegus monogyna    | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 1329                            | 15    | Corylus avellana      | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 1329                            | 15    | Ilex aquifolium       | 40-60      | 2L         | 5/m2              | Leader with laterals          |
| 443                             | 5     | Lonicera periclymenum | 60-80      | 2L         | 5/m2              | Caned: several breaks         |
| 886                             | 10    | Malus sylvestris      | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 886                             | 10    | Prunus spinosa        | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 443                             | 5     | Rosa arvensis         | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 443                             | 5     | Rosa canina           | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 886                             | 10    | Sambucus nigra        | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |
| 886                             | 10    | Viburnum opulus       | 60-90      | B          | 5/m2              | Transplant (seed-raised), 1+1 |

| Wildflower Meadow Planting |           |                                            |                                          |
|----------------------------|-----------|--------------------------------------------|------------------------------------------|
| Code                       | Area (m2) | Seed Mix Specification                     | Sowing Rate (g/m <sup>2</sup> )          |
| WFM1                       | 240       | N4F Summer flowering Butterfly and Bee Mix | 1.5g/m2 sow to suppliers recommendations |
| WFM2                       | 5228      | Emorsgate EM10 Tussock Mixture             | 4g/m2 sow to suppliers recommendations   |

| Grassland Meadow Planting |           |                                                      |                                 |
|---------------------------|-----------|------------------------------------------------------|---------------------------------|
| Code                      | Area (m2) | Seed Mix Specification                               | Sowing Rate (g/m <sup>2</sup> ) |
| WFM3                      | 24,480    | Emorsgate EM3 Special General Purpose Meadow Mixture | Suppliers recommendations.      |

| MP - Marginal Planting |           |                                                                                                                                                                                 |                                           |
|------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Code                   | Area (m2) | Seed Mix Specification                                                                                                                                                          | Sowing Rate (g/m <sup>2</sup> )           |
| MP1                    | 2432      | Naturescape N7F Wetland Mix                                                                                                                                                     | 1.5g/m2. sow to suppliers recommendations |
| MP2                    | 4235      | Species mix to include Mentha aquatica, Myosotis scorpioides, Veronica beccabunga, Nasturtium officinale, Iris pseudacorus, Glyceria maxima, Carex riparia, Carex pseudocyperus | To Ecologists recommendations             |

| SHRUBS                                                                                     |         |                                     |           |        |                |                    |
|--------------------------------------------------------------------------------------------|---------|-------------------------------------|-----------|--------|----------------|--------------------|
| Shrub bed composition to be laid out and agreed with Landscape Architect prior to planting |         |                                     |           |        |                |                    |
| Qty                                                                                        | Abbrev. | Name                                | Rate / m2 | Height | Container Size | Specification      |
| 259                                                                                        | ABE GRA | Abelia grandiflora                  | 5         | 30-40  | 3L             | Bushy; 3 breaks    |
| 257                                                                                        | CHO AZT | Choisya Aztec Pearl                 | 5         | 30-40  | 3L             | Bushy; 5 breaks    |
| 155                                                                                        | EUO SIL | Euonymus 'Silver Queen'             | 5         | 30-40  | 3L             | Bushy; 5 breaks    |
| 245                                                                                        | HEB SUT | Hebe pinguifolia 'sutherlandii'     | 5         | 20-30D | 3L             | Bushy; 5 breaks    |
| 410                                                                                        | LON NIT | Lonicera nitida                     | 5         | 30-40  | 3L             | Bushy; 5 breaks    |
| 297                                                                                        | PHI MAN | Philadelphus 'Manteau d'hermine'    | 5         | 30-40  | 3L             | Branched; 4 breaks |
| 757                                                                                        | PIT TOM | Pittosporum tenuifolium 'Tom thumb' | 5         | 20-30  | 5L             | Bushy; 5 breaks    |
| 545                                                                                        | PAC TER | Pachysandra terminalis              | 7         | 20-30  | 3L             | Bushy; 4 breaks    |
| 362                                                                                        | SAR CON | Sarcococca confusa                  | 5         | 20-30  | 3L             | Bushy; 6 breaks    |
| 488                                                                                        | VIB DAV | Viburnum davidii                    | 5         | 20-30  | 3L             | Bushy; 3 brks      |

|     |          |                                               |          |
|-----|----------|-----------------------------------------------|----------|
| P5  | 09.01.24 | Additional ponds added to the ecological area | KLJ      |
| P4  | 27.03.23 | Updated SuDS ponds                            | KLJ      |
| P3  | 25.10.22 | Revised to Architects layout                  | KLJ      |
| P2  | 14.09.22 | Marginal planting to ponds                    | KLJ      |
| P1  | 26.08.22 | Initial Issue                                 | KLJ      |
| Rev | Date     | Description                                   | Initials |

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

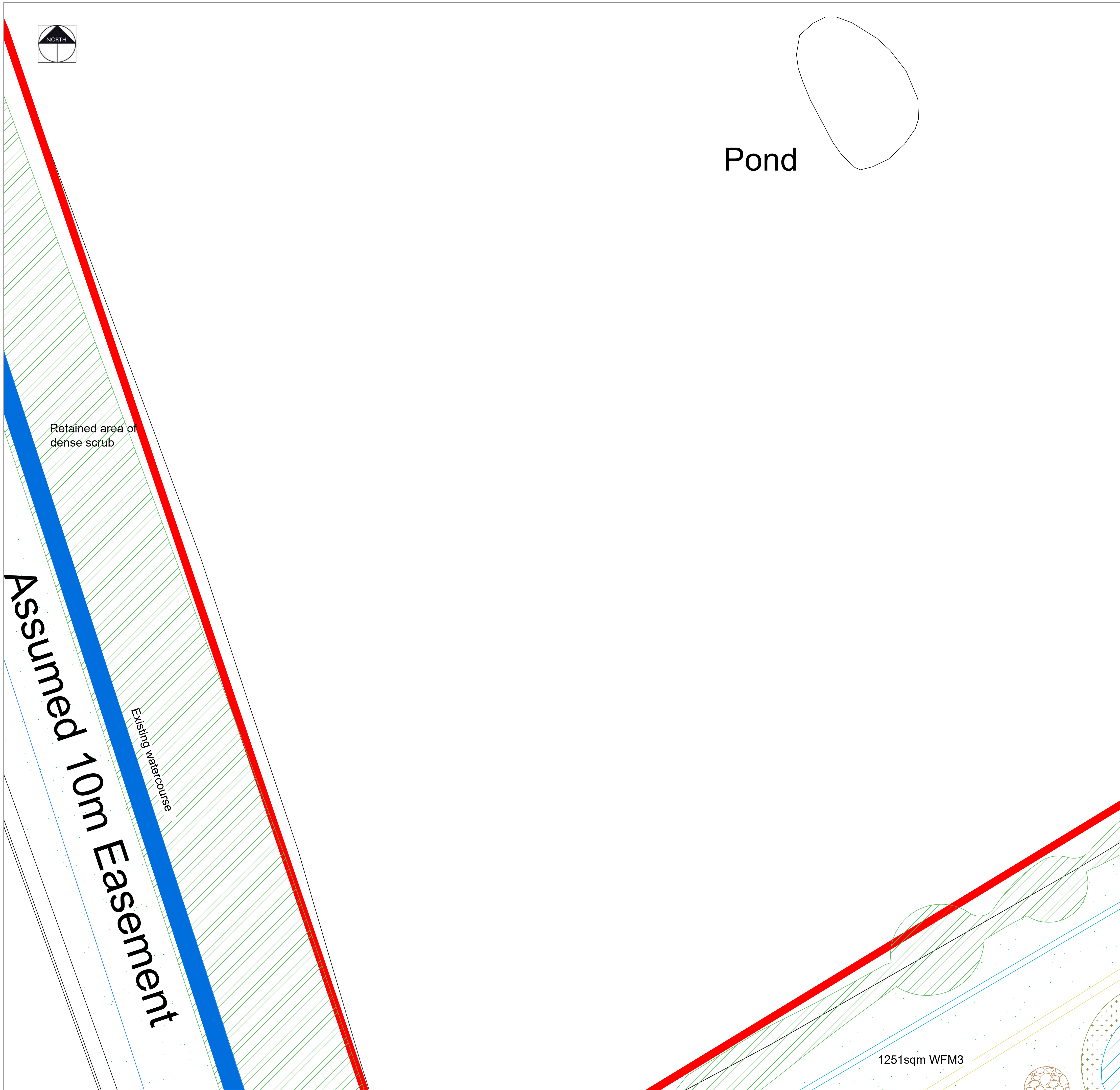
Description

PLANTING PLAN AND SCHEDULE

Status

FOR PLANNING

|            |                |          |          |
|------------|----------------|----------|----------|
| Scale      | Drawn          | Checked  | Date     |
| 1:1500@A1  | KLJ            | PGG      | OCT 2022 |
| Job number | Drawing number | Revision |          |
| WRE2206    | PP01.00        | P5       |          |



|                                                                                       |                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>EXISTING VEGETATION - DENSE SCRUB</b><br><i>Please refer to the ecology report for details on species</i>                                                                                               |
|    | <b>EXISTING VEGETATION - WOODLAND</b><br><i>Please refer to the ecology report for details on species</i>                                                                                                  |
|    | <b>EXISTING GRASSLAND</b><br><i>Areas of grassland to be retained. Please refer to the ecology report for details</i>                                                                                      |
|    | <b>EXISTING PONDS</b><br><i>Ponds to be retained</i>                                                                                                                                                       |
|    | <b>PROPOSED PONDS</b><br><i>Refer to Ecology Report for further details</i>                                                                                                                                |
|    | <b>MARSHY WET GRASSLAND</b><br><i>Refer to planting schedule for species and quantities and Ecology Report</i>                                                                                             |
|    | <b>WILDFLOWER GRASSLAND</b><br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                     |
|    | <b>TALL TUSSOCKY GRASSLAND</b><br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                  |
|    | <b>MIXED NATIVE HEDGEROW</b><br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                    |
|    | <b>BUTTERFLY / BEETLE WILDFLOWER MOUND</b><br><i>South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities</i>                                      |
|  | <b>TREES</b><br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                                    |
|  | <b>WET DITCH</b>                                                                                                                                                                                           |
|  | <b>PATH</b><br><i>Maintained short grassland path</i>                                                                                                                                                      |
|  | <b>AMPHIBIAN AND REPTILE HIBERNACULA</b><br><i>Refer to Ecology Report for further information</i>                                                                                                         |
|  | <b>LOG PILE</b>                                                                                                                                                                                            |
|  | <b>MARGINAL PLANTING</b><br><i>Refer to planting schedule for details and quantities</i>                                                                                                                   |
|  | <b>DENSE SCRUB</b><br><i>Native whip planting. Refer to planting schedule for details and quantities</i>                                                                                                   |
|  | <b>RETAINED DISTURBED AREAS</b><br><i>Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details</i>                                |
|  | <b>OPEN MOSAIC GROUND</b><br><i>Areas of existing hardstanding / gravel to be broken up &amp; allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details</i> |
|  | <b>SANDBANKS</b><br><i>Unvegetated sandbanks</i>                                                                                                                                                           |
|  | <b>AMPHIBIAN HIBERNACLA</b>                                                                                                                                                                                |
|  | <b>PROPOSED SHRUB BED</b><br><i>Please refer to the planting schedule for further details on species, quantities and nursery grades</i>                                                                    |

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

Description

PLANTING PLAN

SHEET 14

Status

FOR PLANNING

Scale

1:250@A1

Drawn

KLJ

Checked

PGG

Date

OCT 2022

Job number

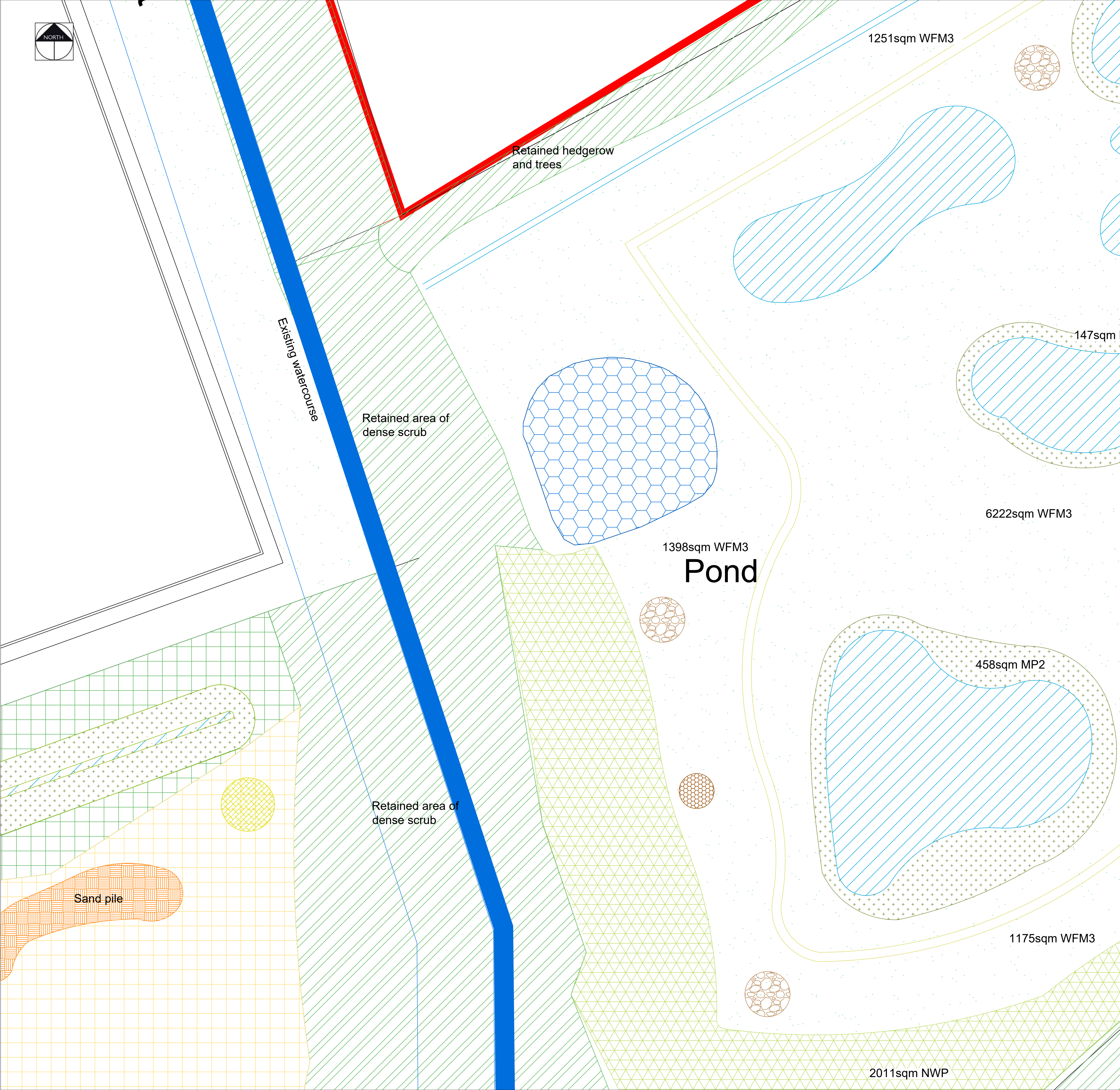
WRE2206

Drawing number

PP01.14

Revision

P4



KEY

EXISTING VEGETATION - DENSE SCRUB

*Please refer to the ecology report for details on species*

EXISTING VEGETATION - WOODLAND

*Please refer to the ecology report for details on species*

EXISTING GRASSLAND

*Areas of grassland to be retained. Please refer to the ecology report for details*

EXISTING PONDS

*Ponds to be retained*

PROPOSED PONDS

*Refer to Ecology Report for further details*

MARSHY WET GRASSLAND

*Refer to planting schedule for species and quantities and Ecology Report*

WILDFLOWER GRASSLAND

*Refer to planting schedule for details on species and quantities*

TALL TUSSOCKY GRASSLAND

*Refer to planting schedule for details on species and quantities*

MIXED NATIVE HEDGEROW

*Refer to planting schedule for details on species and quantities*

BUTTERFLY / BEETLE WILDFLOWER MOUND

*South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities*

TREES

*Refer to planting schedule for details on species and quantities*

WET DITCH

PATH

*Maintained short grassland path*

AMPHIBIAN AND REPTILE HIBERNACULA

*Refer to Ecology Report for further information*

LOG PILE

MARGINAL PLANTING

*Refer to planting schedule for details and quantities*

DENSE SCRUB

*Native whip planting. Refer to planting schedule for details and quantities*

RETAINED DISTURBED AREAS

*Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details*

OPEN MOSAIC GROUND

*Areas of existing hardstanding / gravel to be broken up & allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details*

SANDBANKS

*Unvegetated sandbanks*

AMPHIBIAN HIBERNACLA

PROPOSED SHRUB BED

*Please refer to the planting schedule for further details on species, quantities and nursery grades*

P5

09.01.24

Additional ponds added to the ecological area

KLJ

P4

27.03.23

Updated SuDS ponds

KLJ

P3

01.11.22

Revised to Architects layout + Drainage Strategy

KLJ

P2

14.09.22

Marginal planting to ponds

KLJ

P1

26.08.22

Initial Issue

KLJ

Rev

Date

Description

Initials

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

Description

PLANTING PLAN

SHEET 15

Status

FOR PLANNING

Scale

1:250@A1

Drawn

KLJ

Checked

PGG

Date

OCT 2022

Job number

WRE2206

Drawing number

PP01.15

Revision

P5

Original size 100mm @ A1



**KEY**

EXISTING VEGETATION - DENSE SCRUB  
*Please refer to the ecology report for details on species*

EXISTING VEGETATION - WOODLAND  
*Please refer to the ecology report for details on species*

EXISTING GRASSLAND  
*Areas of grassland to be retained. Please refer to the ecology report for details*

EXISTING PONDS  
*Ponds to be retained*

PROPOSED PONDS  
*Refer to Ecology Report for further details*

MARSHY WET GRASSLAND  
*Refer to planting schedule for species and quantities and Ecology Report*

WILDFLOWER GRASSLAND  
*Refer to planting schedule for details on species and quantities*

TALL TUSSOCKY GRASSLAND  
*Refer to planting schedule for details on species and quantities*

MIXED NATIVE HEDGEROW  
*Refer to planting schedule for details on species and quantities*

BUTTERFLY / BEETLE WILDFLOWER MOUND  
*South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities*

TREES  
*Refer to planting schedule for details on species and quantities*

WET DITCH

PATH  
*Maintained short grassland path*

AMPHIBIAN AND REPTILE HIBERNACULA  
*Refer to Ecology Report for further information*

LOG PILE

MARGINAL PLANTING  
*Refer to planting schedule for details and quantities*

DENSE SCRUB  
*Native whip planting. Refer to planting schedule for details and quantities*

RETAINED DISTURBED AREAS  
*Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details*

OPEN MOSAIC GROUND  
*Areas of existing hardstanding / gravel to be broken up & allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details*

SANDBANKS  
*Unvegetated sandbanks*

AMPHIBIAN HIBERNACLA

PROPOSED SHRUB BED  
*Please refer to the planting schedule for further details on species, quantities and nursery grades*

|     |          |                                                  |          |
|-----|----------|--------------------------------------------------|----------|
| Rev | Date     | Description                                      | Initials |
| P5  | 09.01.24 | Additional ponds added to the ecological area    | KLJ      |
| P4  | 27.03.23 | Updated SuDS ponds                               | KLJ      |
| P3  | 01.11.22 | Revised to Architects layout + Drainage Strategy | KLJ      |
| P2  | 14.09.22 | Marginal planting to ponds                       | KLJ      |
| P1  | 26.08.22 | Initial Issue                                    | KLJ      |

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

Description

PLANTING PLAN

SHEET 16

Status

FOR PLANNING

Scale

1:250@A1

Drawn

KLJ

Checked

PGG

Date

OCT 2022

Job number

WRE2206

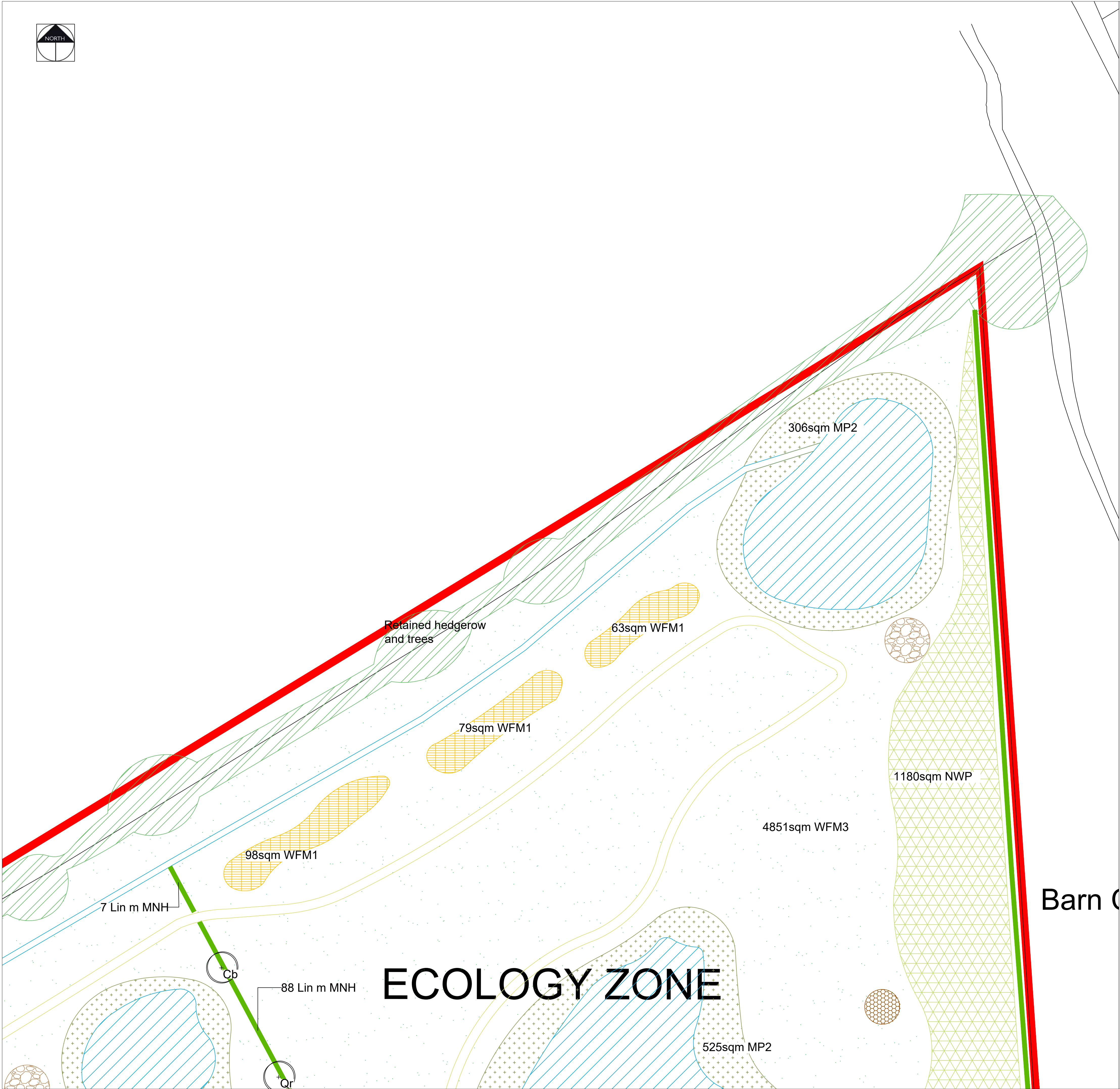
Drawing number

PP01.16

Revision

P5

Original size 100mm @ A1



| KEY |                                                                                                                                                                                                     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | EXISTING VEGETATION - DENSE SCRUB<br><i>Please refer to the ecology report for details on species</i>                                                                                               |
|     | EXISTING VEGETATION - WOODLAND<br><i>Please refer to the ecology report for details on species</i>                                                                                                  |
|     | EXISTING GRASSLAND<br><i>Areas of grassland to be retained. Please refer to the ecology report for details</i>                                                                                      |
|     | EXISTING PONDS<br><i>Ponds to be retained</i>                                                                                                                                                       |
|     | PROPOSED PONDS<br><i>Refer to Ecology Report for further details</i>                                                                                                                                |
|     | MARSHY WET GRASSLAND<br><i>Refer to planting schedule for species and quantities and Ecology Report</i>                                                                                             |
|     | WILDFLOWER GRASSLAND<br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                     |
|     | TALL TUSSOCKY GRASSLAND<br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                  |
|     | MIXED NATIVE HEDGEROW<br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                    |
|     | BUTTERFLY / BEETLE WILDFLOWER MOUND<br><i>South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities</i>                                      |
|     | TREES<br><i>Refer to planting schedule for details on species and quantities</i>                                                                                                                    |
|     | WET DITCH                                                                                                                                                                                           |
|     | PATH<br><i>Maintained short grassland path</i>                                                                                                                                                      |
|     | AMPHIBIAN AND REPTILE HIBERNACULA<br><i>Refer to Ecology Report for further information</i>                                                                                                         |
|     | LOG PILE                                                                                                                                                                                            |
|     | MARGINAL PLANTING<br><i>Refer to planting schedule for details and quantities</i>                                                                                                                   |
|     | DENSE SCRUB<br><i>Native whip planting. Refer to planting schedule for details and quantities</i>                                                                                                   |
|     | RETAINED DISTURBED AREAS<br><i>Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details</i>                                |
|     | OPEN MOSAIC GROUND<br><i>Areas of existing hardstanding / gravel to be broken up &amp; allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details</i> |
|     | SANDBANKS<br><i>Unvegetated sandbanks</i>                                                                                                                                                           |
|     | AMPHIBIAN HIBERNACULA                                                                                                                                                                               |
|     | PROPOSED SHRUB BED<br><i>Please refer to the planting schedule for further details on species, quantities and nursery grades</i>                                                                    |

| P5  | 09.01.24 | Additional ponds added to the ecological area    | KLJ      |
|-----|----------|--------------------------------------------------|----------|
| P4  | 27.03.23 | Updated SuDS ponds                               | KLJ      |
| P3  | 01.11.22 | Revised to Architects layout + Drainage Strategy | KLJ      |
| P2  | 14.09.22 | Marginal planting to ponds                       | KLJ      |
| P1  | 26.08.22 | Initial Issue                                    | KLJ      |
| Rev | Date     | Description                                      | Initials |

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Client  
**FIREM**

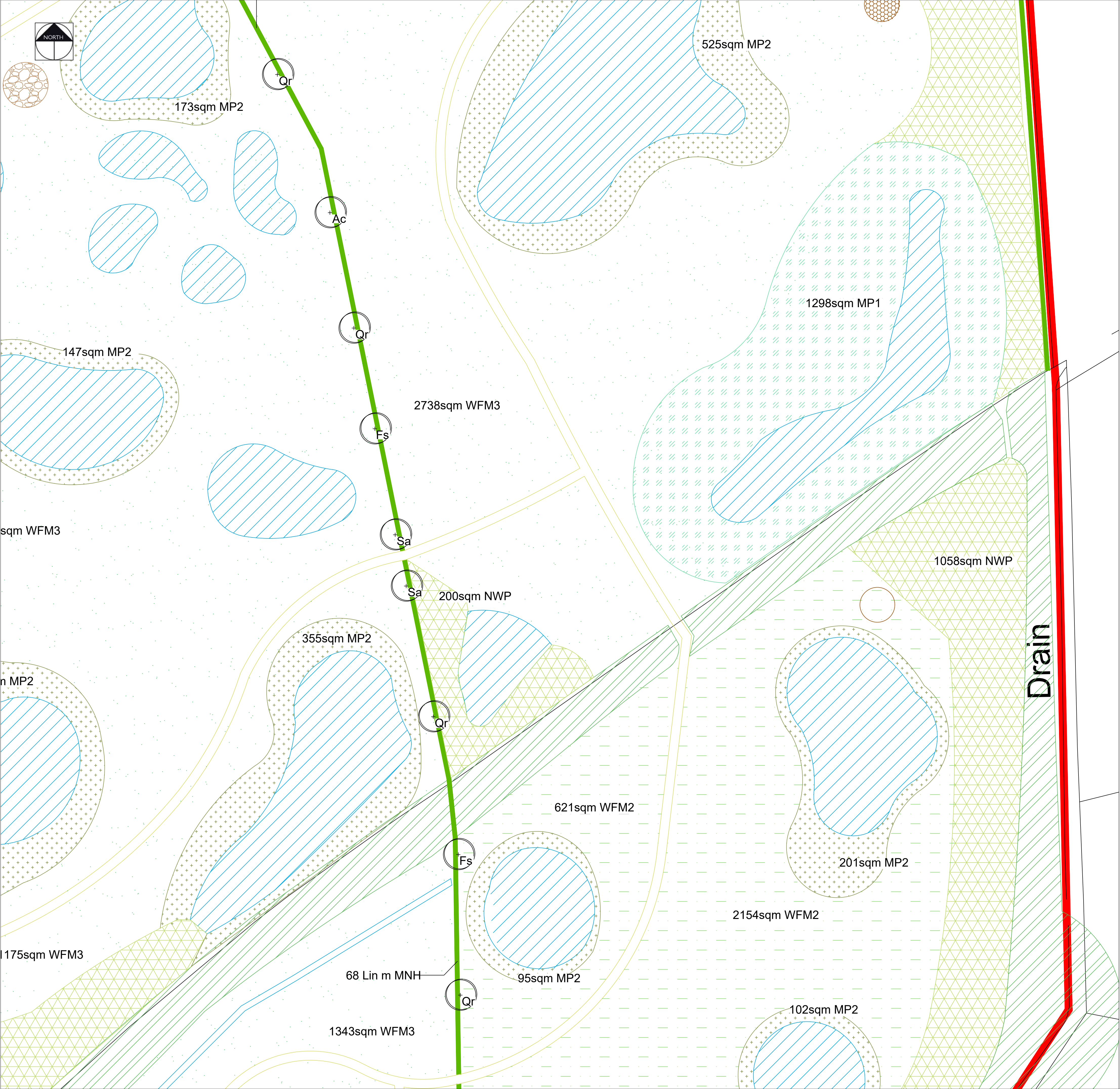
Project  
**3A, KINGMOOR, WREXHAM**

Description  
**PLANTING PLAN**  
**SHEET 17**

Status  
**FOR PLANNING**

|                              |                                  |                       |                         |
|------------------------------|----------------------------------|-----------------------|-------------------------|
| Scale<br><b>1:250@A1</b>     | Drawn<br><b>KLJ</b>              | Checked<br><b>PGG</b> | Date<br><b>OCT 2022</b> |
| Job number<br><b>WRE2206</b> | Drawing number<br><b>PP01.17</b> | Revision<br><b>P5</b> |                         |

Original size 100mm @ A1



**KEY**

EXISTING VEGETATION - DENSE SCRUB  
*Please refer to the ecology report for details on species*

EXISTING VEGETATION - WOODLAND  
*Please refer to the ecology report for details on species*

EXISTING GRASSLAND  
*Areas of grassland to be retained. Please refer to the ecology report for details*

EXISTING PONDS  
*Ponds to be retained*

PROPOSED PONDS  
*Refer to Ecology Report for further details*

MARSHY WET GRASSLAND  
*Refer to planting schedule for species and quantities and Ecology Report*

WILDFLOWER GRASSLAND  
*Refer to planting schedule for details on species and quantities*

TALL TUSSOCKY GRASSLAND  
*Refer to planting schedule for details on species and quantities*

MIXED NATIVE HEDGEROW  
*Refer to planting schedule for details on species and quantities*

BUTTERFLY / BEETLE WILDFLOWER MOUND  
*South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities*

TREES  
*Refer to planting schedule for details on species and quantities*

WET DITCH

PATH  
*Maintained short grassland path*

AMPHIBIAN AND REPTILE HIBERNACULA  
*Refer to Ecology Report for further information*

LOG PILE

MARGINAL PLANTING  
*Refer to planting schedule for details and quantities*

DENSE SCRUB  
*Native whip planting. Refer to planting schedule for details and quantities*

RETAINED DISTURBED AREAS  
*Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details*

OPEN MOSAIC GROUND  
*Areas of existing hardstanding / gravel to be broken up & allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details*

SANDBANKS  
*Unvegetated sandbanks*

AMPHIBIAN HIBERNACULA

PROPOSED SHRUB BED  
*Please refer to the planting schedule for further details on species, quantities and nursery grades*

|    |          |                                                  |     |
|----|----------|--------------------------------------------------|-----|
| P5 | 09.01.24 | Additional ponds added to the ecological area    | KLJ |
| P4 | 27.03.23 | Updated SuDS ponds                               | KLJ |
| P3 | 01.11.22 | Revised to Architects layout + Drainage Strategy | KLJ |
| P2 | 14.09.22 | Marginal planting to ponds                       | KLJ |
| P1 | 26.08.22 | Initial Issue                                    | KLJ |

| Rev | Date | Description | Initials |
|-----|------|-------------|----------|
|-----|------|-------------|----------|

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

Description

PLANTING PLAN

SHEET 18

Status

FOR PLANNING

Scale

1:250@A1

Drawn

KLJ

Checked

PGG

Date

OCT 2022

Job number

WRE2206

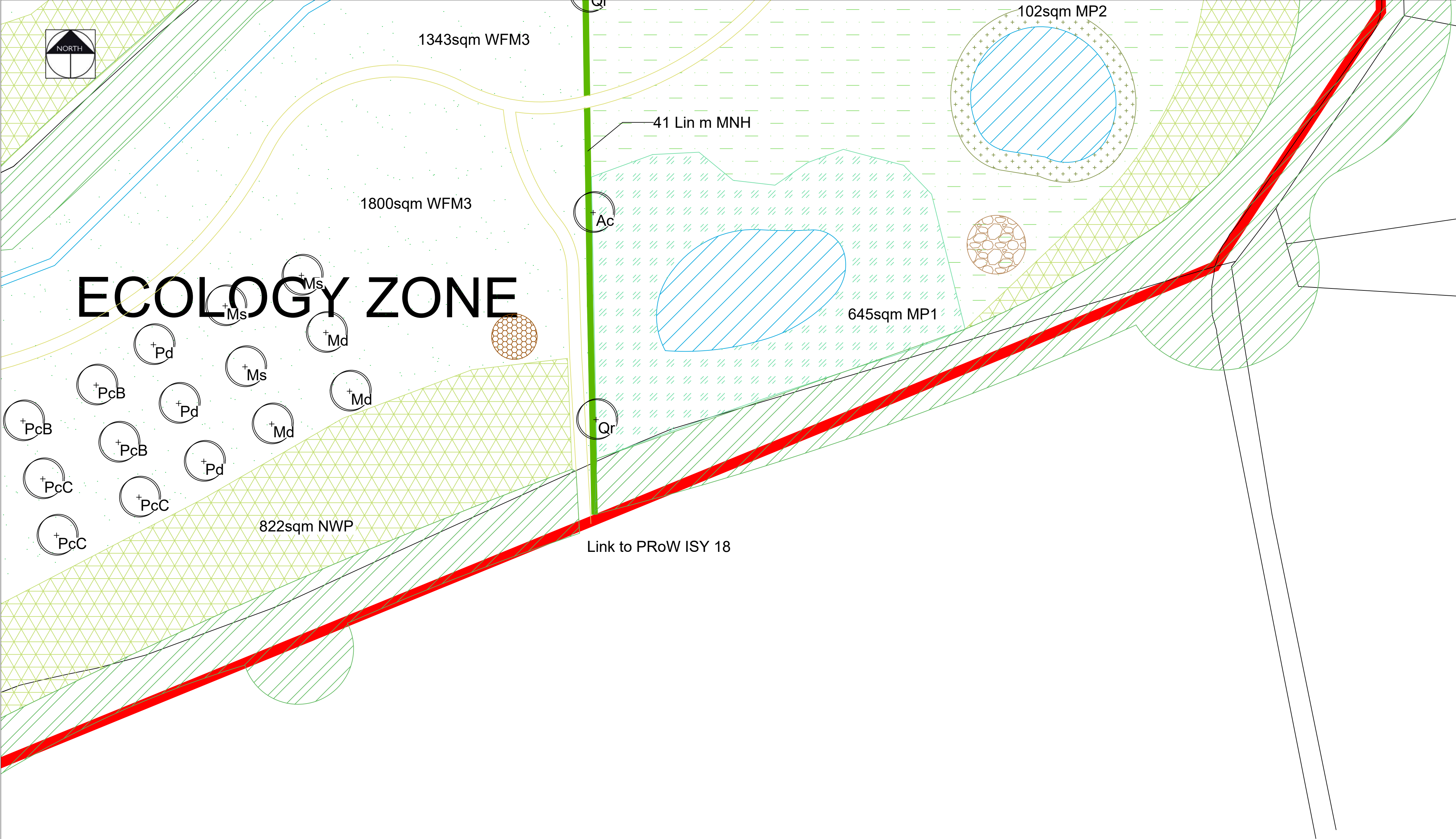
Drawing number

PP01.18

Revision

P5

Original size 100mm @ A1



KEY

EXISTING VEGETATION - DENSE SCRUB  
*Please refer to the ecology report for details on species*

EXISTING VEGETATION - WOODLAND  
*Please refer to the ecology report for details on species*

EXISTING GRASSLAND  
*Areas of grassland to be retained. Please refer to the ecology report for details*

EXISTING PONDS  
*Ponds to be retained*

PROPOSED PONDS  
*Refer to Ecology Report for further details*

MARSHY WET GRASSLAND  
*Refer to planting schedule for species and quantities and Ecology Report*

WILDFLOWER GRASSLAND  
*Refer to planting schedule for details on species and quantities*

TALL TUSSOCKY GRASSLAND  
*Refer to planting schedule for details on species and quantities*

MIXED NATIVE HEDGEROW  
*Refer to planting schedule for details on species and quantities*

BUTTERFLY / BEETLE WILDFLOWER MOUND  
*South facing mound planted in a wildflower mix. Refer to planting schedule for details on species and quantities*

TREES  
*Refer to planting schedule for details on species and quantities*

WET DITCH

PATH  
*Maintained short grassland path*

AMPHIBIAN AND REPTILE HIBERNACULA  
*Refer to Ecology Report for further information*

LOG PILE

MARGINAL PLANTING  
*Refer to planting schedule for details and quantities*

DENSE SCRUB  
*Native whip planting. Refer to planting schedule for details and quantities*

RETAINED DISTURBED AREAS  
*Areas of open mosaic disturbed ground with scattered scrub to remain as existing. Refer to UES Ecology Report for further details*

OPEN MOSAIC GROUND  
*Areas of existing hardstanding / gravel to be broken up & allowed to naturally colonise with wildflower and scrub. Refer to UES Ecology Report for further details*

SANDBANKS  
*Unvegetated sandbanks*

AMPHIBIAN HIBERNACLA

PROPOSED SHRUB BED  
*Please refer to the planting schedule for further details on species, quantities and nursery grades*

|     |          |                                                  |          |
|-----|----------|--------------------------------------------------|----------|
|     |          |                                                  |          |
| P5  | 09.01.24 | Additional ponds added to the ecological area    | KLJ      |
| P4  | 27.03.23 | Updated SuDS ponds                               | KLJ      |
| P3  | 01.11.22 | Revised to Architects layout + Drainage Strategy | KLJ      |
| P2  | 14.09.22 | Marginal planting to ponds                       | KLJ      |
| P1  | 26.08.22 | Initial Issue                                    | KLJ      |
| Rev | Date     | Description                                      | Initials |

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Client

FIREM

Project

3A, KINGMOOR, WREXHAM

Description

PLANTING PLAN

SHEET 19

Status

FOR PLANNING

Scale

1:250@A1

Drawn

KLJ

Checked

PGG

Date

OCT 2022

Job number

WRE2206

Drawing number

PP01.19

Revision

P5

Original size 100mm @ A1



## **Appendix 2 – Statutory and planning context**

## STATUTORY AND PLANNING CONTEXT

### Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

### Habitats

Section 7 of the Environment Act (Wales) places a duty on Welsh Ministers to publish, review and revise lists of types of habitats and species in Wales which they consider are of key significance to sustain and improve biodiversity. The Welsh Ministers must also take all reasonable steps to maintain and enhance the habitats published in these lists, and encourage others to take such steps.

### Amphibians

#### Great crested newts

Great crested newts (GCN) *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture GCN
- Deliberately, intentionally or recklessly disturb GCN in such a way to be likely to significantly affect:
  - their ability to survive, breed, reproduce, rear or nurture their young
  - their ability to hibernate or migrate
  - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of GCN
- Damage or destroy breeding sites or resting places of GCN
- Intentionally or recklessly disturb sheltering GCN, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead GCN, any part of GCN or anything derived from GCN

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

GCN are also protected by the Protection of Animals Act 1911, which prohibits cruelty and mistreatment. Releasing a GCN in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960.

In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare. GCN are also listed under Section 7 of the Environment (Wales) Act 2016.

It is important to identify the presence of GCN individuals and also to identify suitable habitat on sites so that legal obligations regarding this species can be observed. If a survey identifies the presence of GCN on the site, an assessment of the population size class is required. This can then inform a mitigation scheme, which would need to be developed in liaison with the local Natural Resources Wales (NRW) team, and which minimises direct threats to newts and compensates for any loss of habitat. A licence issued by NRW is required for the legal implementation of a mitigation scheme.

An NRW mitigation licence application requires a Mitigation Method Statement and a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

### Other amphibians

More common British amphibians, such as common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Triturus vulgaris* and palmate newt *Triturus helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

The above named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out.

Natterjack toad *Bufo calamita* and pool frog *Pelophylax lessonae* are also offered the same level of protection as GCN, through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Natterjack and common toad are also listed under Section 7 of the Environment (Wales) Act 2016.

Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Special Scientific Interest (SSSI).

### **Planning Policy**

National planning guidance is issued in the form of Planning Policy Wales (PPW - 2018). The most relevant sections are included in Chapter 6: Distinctive and Natural Places. This chapter details the policies on issues such as the protection of trees, woodlands, species, and designated sites. The document is free and available to view online