

BLOTT'S BARN, RAUNDS

Landscape and Ecology Management  
Plan



Client:

Roger & Amanda Denton Ltd.

Report Reference:

RSE\_6090\_R1\_VI\_LEMP

Issue Date:

February 2023

**PROJECT**

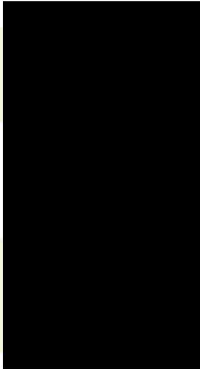
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**DOCUMENT CONTROL**

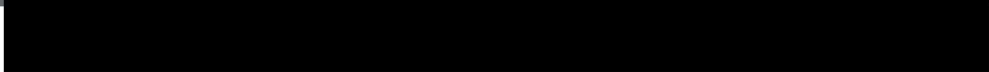
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Revisions:

East Midlands: West Midlands: Yorkshire



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## 1 INTRODUCTION AND BACKGROUND

### 1.1 Purpose and Scope of this Report

- I RammSanderson Ecology Ltd was commissioned by Roger & Amanda Denton Ltd to produce a Landscape and Ecology Management Plan to pursuant to the discharge of Conditions 4 and 5 at the reserved matters stage of application (*20/00486/FUL*) relating to the full planning permission for the proposed commercial development for a B1 Office Unit and Ancillary Storage Barn at Blotts Barn, Raunds, Northamptonshire.
- ii This document is intended to provide sufficient information to discharge Conditions 4 and 5 and is based upon the client's site proposals plan (Appendix 1).

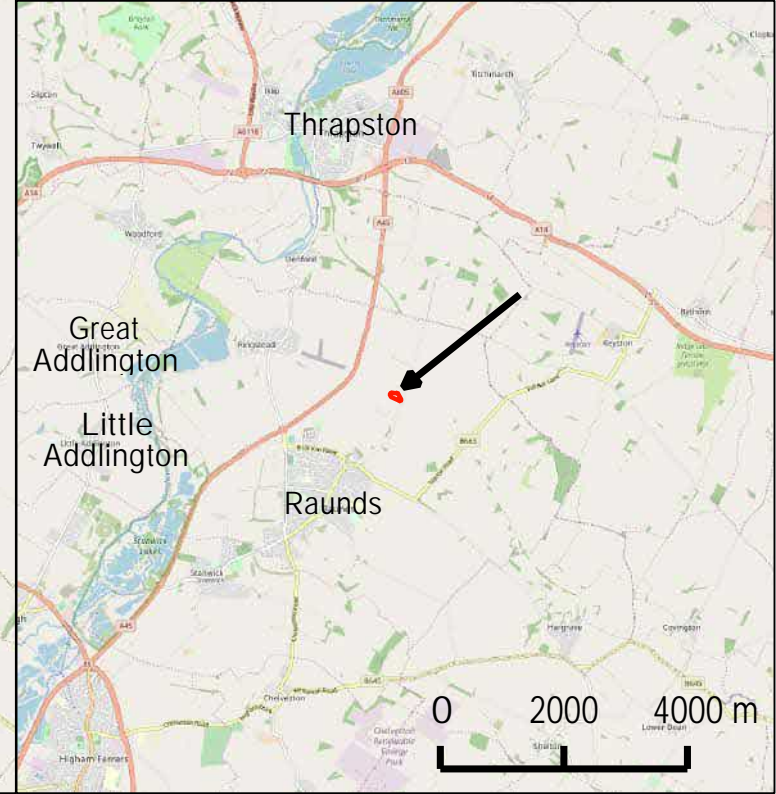
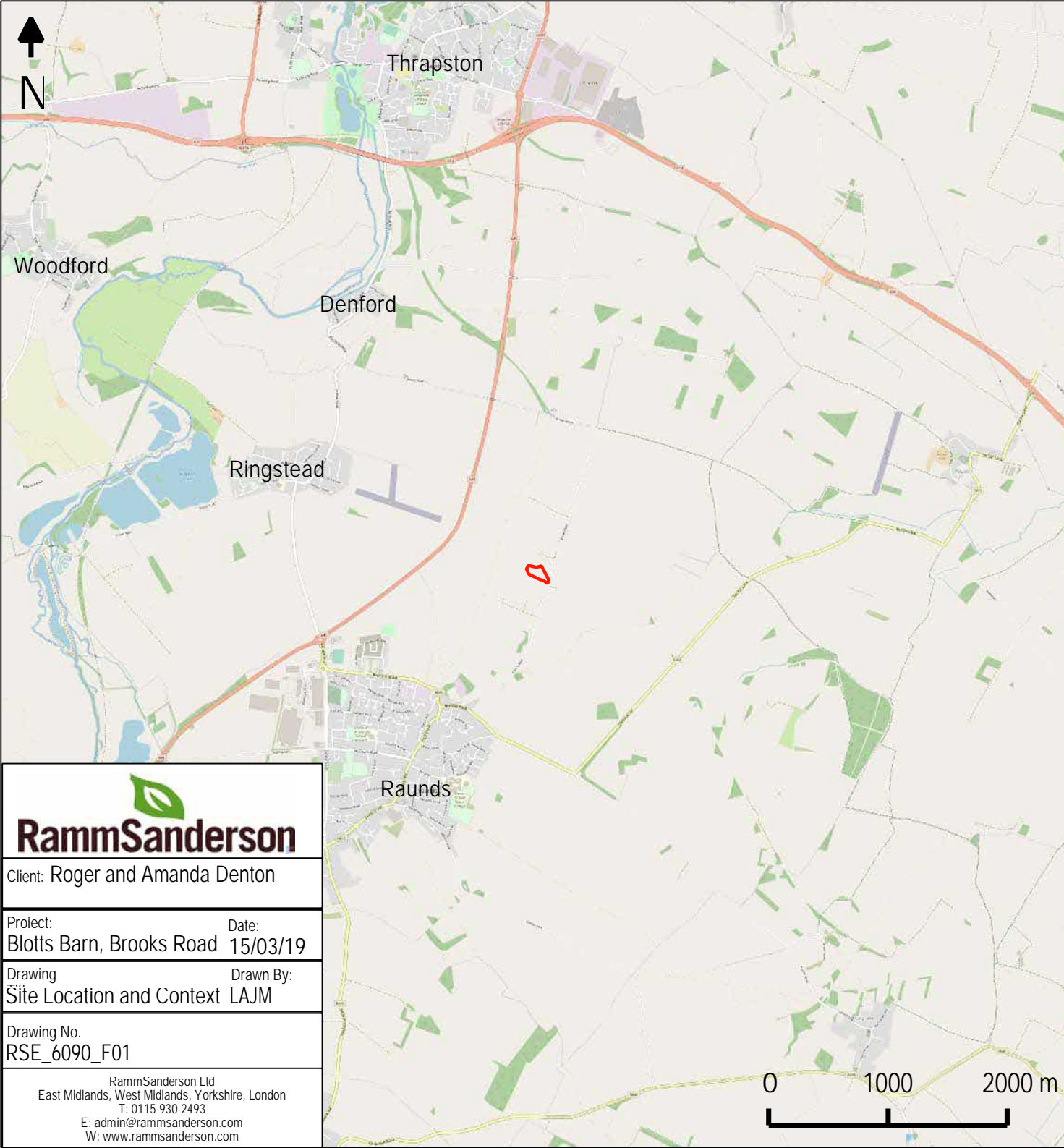
### 1.2 Background Information


- I RammSanderson Ecology Ltd was instructed by Bowbridge Group to produce a Landscape and Ecology Management Plan to inform the discharging of planning conditions (within *20/00486/FUL*) for the proposed commercial development for a B1 Office Unit and Ancillary Storage Barn at Blotts Barn. This data is taken in conjunction with that provided during previous surveys of the site during an Ecological Impact Assessment in 2019 by RammSanderson.
- ii The EclA in 2019 found the site comprised of amenity grassland, with a recently cleared area of blackthorn scrub and tall ruderal vegetation, perimeter fencing and two species-poor hedgerows. A pond was present within the eastern aspect of the site, which supported a medium GCN breeding population. Brash piles present within the site provided suitable habitat for breeding and hibernating GCN. Therefore, any development of the site will require a Natural England (NE) European Protected Species Licence (EPSL) to legitimise the proposals. Habitat clearance works were undertaken on suitable terrestrial GCN habitat within the north and west of the site prior to the ecology field survey. Due to the loss of this habitat on site, off-site compensation habitat creation will be required as part of the EPSL to legitimise the works.

### 1.3 Site Context and Location

- I The site formed part of a business park which is used by approximately five businesses (central grid reference TL 00823 74421) within Blotts Barn, Brooks Rd, Raunds, Wellingborough NN9 6NS. The site was located to the west of Brooks Road and comprised short mown amenity grassland, with a recently cleared area of blackthorn scrub and tall ruderal vegetation comprising bare ground to the west and north of the site, a large brash pile, perimeter fencing and two species-poor hedgerows. A pond was present within the eastern part of the site. The site lies to the north of the village of Raunds and was approximately 3.4ha in area. The site is surrounded by grazing and arable farmland and hedgerows on all aspects.





 <b>RammSanderson</b>	
Client: Roger and Amanda Denton	
Project: Blotts Barn, Brooks Road	Date: 15/03/19
Drawing Site Location and Context	Drawn By: LAJM
Drawing No. RSE_6090_F01	
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## 1.4 Management Objectives and Targets

- i In compiling the management plan for this site the following relevant articles of legislation are considered with regard to maximise the local and national benefits in accordance with their targets;

The Environment Act, 2021  
The National Planning Policy Framework (2021)  
ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021)  
The Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019 (as amended);  
The Wildlife and Countryside Act 1981 (as amended);  
EC Council Directive on the Conservation of Wild Birds 79/409/EEC;  
National Parks and Access to the Countryside Act 1949;  
The Protection of Badgers Act 1992;  
The Countryside and Rights of Way Act 2000;  
The Hedgerow Regulations 1997;  
The Natural Environment and Rural Communities (NERC) Act 2006;  
UK Biodiversity Action Plan (UKBAP) 1995;  
Northamptonshire Local Biodiversity Action Plan (NLBAP);

- ii The management plan has been compiled to provide guidance to address the pre-commencement conditions 4 and 5 (20/00486/FUL) outlined below which ensure the protection of local protected species and habitats;

### Condition 4

*A landscape and ecological management plan (LEMP) shall be submitted to, and be approved in writing by, the local planning authority prior to the commencement of the development. The content of the LEMP shall include the following:*

- a) Description and evaluation of features to be managed.*
- b) Ecological trends and constraints on site that might influence management.*
- c) Aims and objectives of management.*
- d) Appropriate management options for achieving aims and objectives.*
- e) Prescriptions for management actions.*
- f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).*
- g) Details of the body or organization responsible for implementation of the plan.*
- h) Ongoing monitoring and remedial measures.*

*The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the developer with the management body(ies) responsible for its delivery.*

*The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme.*

*The approved plan must be implemented in accordance with the approved details prior to the first use of the development hereby approved.*

*Reason: In the interests of biodiversity in accordance with the NPPF.*

#### Condition 5

*Prior to the first occupation of the buildings hereby permitted, a soft landscaping plan which incorporates the mitigation and enhancement recommendations in the Ecological Impact Assessment report (RammSanderson ref RSE\_2046\_01\_V1 dated October 2019) shall have been submitted to and approved by the local planning authority. All soft landscaping identified in the agreed landscaping plan (listed above) shall be planted in the first available planting season following the completion or first use of the development (whichever comes first), and shall be maintained for a period of 5 years; such maintenance to include the replacement in the current or nearest planting season whichever is the sooner or shrubs that may die are removed or become seriously damaged or diseased with others of similar size and species.*

*Reason: In the interests of ecology and visual amenity.*

### 1.5 Management Objectives

#### 1.5.1 Site Wide Objectives

**I** The following list provides the site wide management objectives. The management objectives, by landscape typologies, are then considered. Site wide objectives are as follows:

To outline management operations and prescriptions for a five-year period;

To create an environment, which is robust enough to cope with the site's proposed uses;

Ensure that the site is clean and well maintained;

Landscaping scheme shall be completed within one year of completion of the development and material shall be replaced if it dies, is removed, or becomes seriously diseased within the next planting season;

To support and enhance the development of a sustainable landscape that provides ecological interest, legibility and enjoyment for users and visitors of the proposed development;

To implement the recommendations for protection and enhancement identified within the referenced ecological and arboriculture reports;

To ensure the successful establishment and long-term health of all the landscape elements for the benefit of the wildlife;

To ensure the long-term survival and flourishing of the vegetation and target species of native flora and fauna through incorporation of suitable hibernacula and sensitive management and maintenance regimes.

**ii** The landscape strategy overall approach is in response to the Phase 1 ecology survey and as a result will be sensitive to the existing ecology and landscape features of the site whilst implementing recommendation for habitat enhancements.

**iii** As the scheme is implemented and the new planting matures, the operation and management may be altered from that included within this document. This document provides minimum standards to be achieved and a 'benchmark' system, which can be adjusted appropriately to achieve the stated objectives and standards.

#### 1.5.1 Native Trees and Hedgerows

**iv** The site supports species-poor hedgerow on the peripheries of the site, and these are to be retained and enhanced.

**v** A number of scattered broad-leaved trees were present throughout the centre of the site; species included hornbeam (*Carpinus betulus*), horse chestnut (*Aesculus hippocastanum*), and crack willow (*Salix fragilis*). To



compensate for the removal of the chestnut trees within the application site requires the planting of native species.

vi Objectives for the planting are:

- Promote satisfactory establishment and development.
- Promote conditions so that the trees are healthy and safe.
- Promote continuity of the design concept and achievement of the intended landscape aesthetic.
- Maintain planting in accordance with security requirements.
- Consistent with the above, ensure that they provide good habitat for native wildlife (e.g. deadwood should not be removed automatically but only if it poses a real danger to human safety).

#### **1.5.1 Aquatic and Marginal Planting**

vii The potential of the pond to support a range of protected species including GCN will be maximised by planting aquatic and marginal plants. Plant selection will be species suitable for GCN egg laying.

viii This will promote satisfactory establishment and development, as well as continuity of the design concept and achievement of the intended landscape aesthetic.

#### **1.5.1 Grassland Margin-Grass Mix**

ix The creation of grassland margins will include species tolerant of loamy soils.

x This will create habitat corridors between the site and wider landscape and compensate for previous potential GCN habitat loss.

xi It is recommended to take measures to promote habitat; with one third left to stand over winter after the first 12 months and the area under rotation over the following three years.

#### **1.5.1 Wildflower Areas-Wildflower Mix**

xii The creation of wildflower areas includes species tolerant of loamy soils;

xiii The purpose of these areas is to diversify habitats as well as enhance ornamental quality of site whilst increasing the ecological benefits such as nectar and seeds for wildlife.

xiv In order to provide opportunities for feeding and habitat for wildlife at least a third of plant material should be left standing overwinter.

#### **1.5.1 Amenity Grassland**

xv Existing grassland can be maintained through reduced mowing frequency, reduced inputs and raised cutting height. This will encourage more flowering species to flourish and grassland to become more resilient to drought.

#### **1.5.1 Nesting Birds**

viii The site provides suitable habitat for nesting birds within the trees and hedgerows on site. Removal of any vegetation needs to take place at the correct time in order to prevent any damage to birds or disturbance of any nests. A nesting bird check will need to be carried out by a suitably qualified ecologist prior to any vegetation removal.

xvii This site can also be simply and effectively improved through incorporation of a range of bird boxes on trees within the site. Therefore, the objective is to prevent injury or killing, and minimise disturbance to the local nesting bird population. In addition, the second objective is to provide adequate replacement nesting in order to ensure the development does not impact upon breeding success at the population level.



### 1.5.1 Bats

- xviii No trees on site were assessed as having suitable features to support roosting bats. The provision of bat boxes within the new development is recommended. Bat boxes should either be incorporated into the new building or mounted on retained trees within the site boundaries.
- xiv A sensitive lighting strategy should be implemented to prevent adverse effects on commuting and foraging bats from any new lighting scheme. The creation of grassland and a pond, as well as enhancement of hedgerows will also enhance foraging opportunities on site for the local bat populations.

### 1.5.1 Great Crested Newts

- xv GCN presence has been confirmed within the development site, with terrestrial habitats providing optimal habitats for breeding and terrestrial phase of GCN.
- xxi Objectives are not harming GCN population on site, through licence and construction phase mitigation, and to enhance the site for GCN through creation of suitable habitats.
- xvii Habitat clearance works were undertaken on suitable terrestrial habitat within the north and west of the site prior to the initial ecological survey. Hence, the creation of a rough grassland margin on the northern boundary of the arable field is planned. These margins should be a minimum of 5m wide and should be planted with grass seed mix for loamy soils to reflect the local geography. This is to provide adequate habitat corridors which will be separated from the development and to create connectivity between the site and the wider landscape.
- xxiii An existing pond on site by the eastern boundary will be enhanced. A mix of native species will be used to attract amphibians into the habitat. This will include oxygenating species, floating species, and also marginal plants. Pond planting should be completed between Mid-March to June.
- xxiv Additionally, a refuge comprised of a pile of logs will be created by the new pond. It should be constructed by hand under the supervision of an ecologist to ensure that no GCN are harmed during the works. The works should be implemented in summer or autumn to avoid the newt hibernation period when they are most vulnerable to disturbance on land.

## 1.6 Comparison to Policy

- I In reviewing the local policy objectives against the proposed scheme the table below identifies where it is considered that the proposals meet these targets and under what criteria.

Table 1: Targets and Objectives Criteria, Compared to Policy

Targets	Objective Criteria	Rationale
Retained and Enhanced: Hedgerows	LBAP/ NERC Act 2006	New hedgerow planting along the site boundaries is proposed. This will improve habitat connectivity as an ecological corridor across the site boundaries, as well as providing refuge for GCN and nesting opportunities for birds.
Nesting Birds	NPPF 2021, EC Council Directive on the Conservation of Wild Birds 79/409/EEC	The inclusion bird boxes on site will enhance site biodiversity by allowing species to become resident of the site and not transitory, providing biodiversity gain. Removal of vegetation outside of nesting season minimises the chance that birds and their eggs will be injured or damaged during construction.
Roosting Bats	NPPF 2021, Wildlife & Countryside Act (1981, as amended). The Conservation of Habitats & Species (Amendment)	The provision of tree-mounted bat boxes will increase roost provision for local bat populations on site. The creation of grassland, enhancement of the pond and hedgerows will also create enhanced foraging areas and flight lines across the site.

Targets	Objective Criteria	Rationale
	(EU Exit) Regulations 2019 (as amended)	
Great Crested Newts	NPPF 2021, Wildlife & Countryside Act (1981, as amended). The Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019 (as amended)	The enhancement of a breeding pond, as well as the creation of a permanent enhancement area, designed and managed specifically for GCN, will also provide significant on-site habitat enhancement for this species.
Pond	LBAP	An existing pond on site will be retained and specifically enhanced to support GCN.

### 1.7 Management Responsibility

- I The responsibility for implementing this management plan will be the site contractor (nominated by Bowbridge Group) and any associated sub-contractors/management team during the construction time. A copy of this document should be kept on site and referred to where necessary.

### 1.8 Ecological Clerk of Works (ECoW)

- I All works are to be carried out by an experienced ecologist (nominated by RammSanderson Ecology Ltd.) in accordance with the Ecological Clerk of Works code of practice.
- ii Predevelopment checks include:
  - Location and erection of tree mounted bat and bird boxes;
  - Nesting bird checks (where vegetation is removed inside the breeding bird season);
  - GCN construction phase mitigation (as per GCN licence).

## 2 MANAGEMENT PRESCRIPTIONS

### 2.1 Native Planting

#### 2.1.1 Trees

- i The planting of English oak *Quercus robur* and horse chestnut *Aesculus hippocastanum* trees within the site, will offset the loss of the three mature horse chestnut trees within the site.
- ii Trees will be planted adjacent /along the western and northern boundaries. Wherever possible, local tree stock standards will be used for planting. This will ensure that the trees, once mature, are in keeping with the landscape character of the surrounding area and will also be more likely to comprise species which thrive in local conditions.
- iii Management of these areas will be minimal, requiring the following only:
  - Removal and replacement of any dead saplings within the first five years;
  - Removal of the protective sheaths once the trees have established;
  - Seek to retain leaf litter beneath trees, to allow it to decompose naturally. If removal is required for aesthetic reasons, composting on site should be encouraged to provide further habitat areas; and
  - New planting may require watering in times of drought and replacement where new stock has failed to take;

#### 2.1.1 Hedgerows

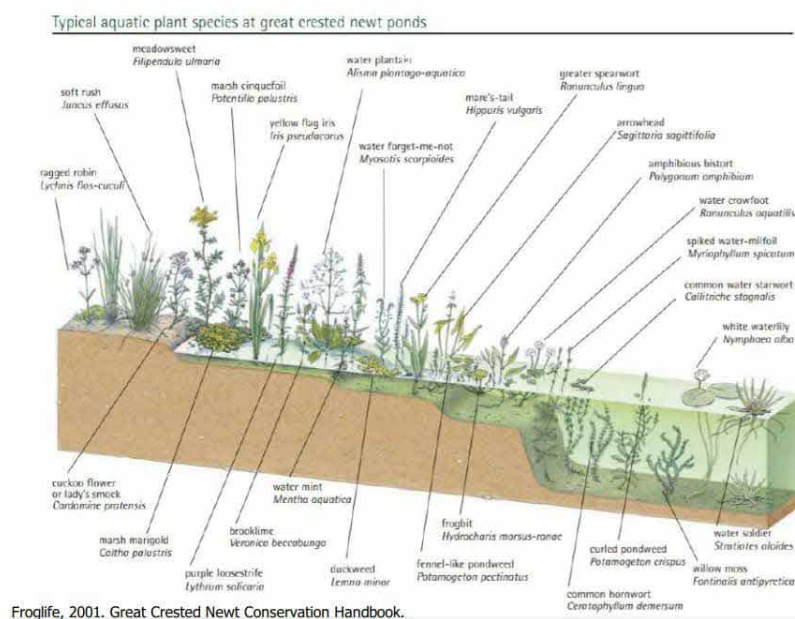
- iv Native hedgerow planting along the boundaries of the site consisting of proposed species including:
  - field maple *Acer campestre*,
  - hazel *Corylus avellana*,
  - hawthorn *Craetaegus monogyna*,
  - spindle *Euonymus europaeus*,
  - blackthorn *Prunus spinosa*,
  - whitebeam *Sorbus aria*,
  - rowan *Sorbus aucuparia*,
  - lime *Tilia cordata*, and
  - guelder rose *Viburnum opulus*.
- v This will provide further foraging opportunities for bats, birds and hedgehogs along with nesting opportunities for some breeding bird species. The layout of the hedgerow planting is shown in Appendix 1. There will be a double -staggered row along the northern boundary.
- iv Existing hedging will be enhanced with infill planting, using species as detailed within proposed native hedgerows. Management will be consistent with all hedgerows on site as detailed below.
- vii Early management of the hedgerow will be limited. This will also include replacement of dead saplings and removal of protective sheaths. After the first five years, management could potentially include laying, gapping up and cutting. However, this will be better advised at the five -year stage when the success of the planting can be reviewed. Management of the hedgerow will be minimal, with traditional management practices such as hand trimming and coppicing undertaken where possible. There will be no hedgerow management over the period March to August inclusive, to safeguard nesting birds. Initially, to encourage dense and bushy growth, the newly planted hedge should be pruned during winter for the first 2 years.

### 2.1.1 Proposed Aquatic and Marginal Planting

- viii Aquatic and marginal plants to enhance the breeding pond using proposed species of:
- marsh marigold *Caltha palustris*,
  - hornwort *Ceratophyllum demersum*,
  - meadowsweet *Filipendula ulmaria*,
  - ragged robin *Lychnis flos-cuculi*,
  - water mint *Mentha aquatica*,
  - bog bean *Menyanthes trifoliata*,
  - water forget-me-not *Myosotis scorpioides*,
  - common water-crowfoot *Ranunculus aquatilis*, and
  - speedwell *Veronica beccabunga*.
- ix These plants will provide potential opportunities for GCN egg laying.
- x Planting of submerged and emergent species to be undertaken from Nov-Feb.
- ix Leave a mower wide strip of amenity grass left long around edge of pond to create cover for wildlife. Cut to 40-60mm height in autumn.
- xii To ensure light is available to plants keep at least 50% of pond surface free from foliage. Using net or rake remove excessive leaves that may be blocking light from surface of pond.
- viii Over winter management of bankside management should leave 50% as tall herbage left to stand over the winter and the other 50% cut by mowing or hand cutting to create an open shore with short vegetation and some bare areas of mud.
- xiv Long term management of emergent species should be undertaken on rotation to minimise impact on the ecology of the pond.
- xv Allow emergent to cover no less than a quarter and no more than half of shallow marginal areas.
- xvi Periodic clearance by hand digging should be undertaken in winter. Do not eradicate any one species of plant.
- xvii Where possible clear the advancing front face of emergent clumps to maintain a stable landward interface and cut others in bands from pond to land to create a mosaic of conditions.
- xviii All plant material that is removed from the pond must be left at the edge for at least 24 hours to allow mobile wildlife to move back into the habitat. Arisings should be taken away from site and composted.



Figure 2: Aquatic Planting Example



Froglife, 2001. Great Crested Newt Conservation Handbook.

**2.1.4 Proposed Grassland Margin-Grass Mix (Emorsgate EG5)**

- xiv A grass mix specifically for loamy soils sown at 5g/m<sup>2</sup> consisting of slow growing forbs; common bent *Agrostis capillaris*, sweet vernal grass *Anthoxanthum odoratum*, quaking grass *Briza media*, crested dog's-tail *Cynosurus cristatus*, sheep fescue *Festuca ovina*, red fescue *F. rubra* and golden oat grass *Trisetum flavescens* will provide habitat corridors separate from the development.
- xv Undesirable species such as bramble, nettle, docks and thistles need to be removed before seeding.
- xxi Take measures to promote satisfactory establishment; mow newly sown areas regularly throughout the first 12 months, to a height of 40-60mm, removing cuttings if dense.
- xxii The following works are to be undertaken during the establishment maintenance period relating to new grass instalment:

Irrigate to maintain healthy growth during establishment;  
 Cut to a height of 40-60mm for the first 12 months;  
 After year 1 an early summer cut of no more than 10% total area to 150mm is optional to provide small open glades, ensuring that this is done in warm conditions (above 15 degrees centigrade so that animals can move out of harm's way);  
 Cut, using a strimmer and raking or a mower, two thirds of total area to a height of 150mm after the first year of establishment at the end of summer;  
 Leave arisings in piles to shed seed for one to seven days and then remove;  
 Cut on rotation, leaving one third of area uncut each time;  
 Cut whole area every two to three years between October and February to control further scrub growth.

**2.1.1 Proposed Wildflower Areas-Wildflower Mix Emorsgate EM5F**

- xxiii A 100% wildflower mix specifically for loamy soils sown at 1.5g/m<sup>2</sup> consisting of species including: yarrow *Achillea millefolium*, common knapweed *Centaurea nigra*, smooth bedstraw *Crucitata laevipes*, wild carrot *Daucus carota*, cowslip *Primula versis*, yellow rattle *Rhinanthus minor etc*;
- xxiv In the first 12 months manage the sward to aid seedling development and maintain a balanced composition from one year to the next.

Problematic weeds such as docks and thistles need to be removed before seeding; and

Prior to seeding, wildflower areas to be cleared of weeds and plant growth and scarified to provide reasonably firm but friable soil. On gradients ground should be stabilised before seeding;

Areas to be seeded during spring or autumn;

Area to be broadcast seeded to 1.5g/ m<sup>2</sup> sowing rate. No fertilizer to be used;

Irrigate well to ensure contact between seed and soil is made.

- xxv Take measures to promote habitat; with one third left to stand over winter after the first 12 months and the area under rotation over the consequent 3 years:

Irrigate to maintain healthy growth during establishment;

A spring cut to be made in the first two years to  $\frac{2}{3}$  of the wildflower area which includes the over wintered plant material. Ensure that this is done in warm conditions (above 15 degrees centigrade so that animals can move out of harm's way);

Cut two thirds of total area to a height of 150mm once per year at the end of summer;

Arisings to be systematically left on site for a period of one to seven days to encourage seed shedding and continual dispersal. Remove arisings off site once seed dispersal has occurred;

Areas kept litter free.

#### **2.1.4** Existing Amenity Grass (rough grass)

- xxiii Cut to a height of 40-60mm on a 2-4 week cycle dependent on growth rate.
- xxvii Arisings will only be removed when leaving them would result in swathes of cut grass lying on the surface. Otherwise, a mulching mower will be used in which the arisings will be left and mulched back into the lawn. In periods of drought, cease mowing lawns until growth begins again.
- xxviii Reduce mowing height to 13-25mm from September to February and remove arisings.
- xxix Scarify and aerate the lawns in the autumn to avoid build-up of thatch. Leaf clearance will be undertaken from October until January to prevent damage to the sward.

## **2.2** Hard Landscape Maintenance

### **2.1.1** Hard Surfaces General Requirements

- i The cleaning of hard surfaces should include the cleaning around fixed obstacles and the moving and replacement of movable items of furniture. Care should be taken to ensure that any arisings from sweeping are not allowed to enter gullies and watercourses.
- ii All hard areas should be swept monthly ensuring the removal of dirt, litter fallen leaves, animal and bird droppings, winter grit and salt by hand or mechanical brushing. This should be carried out across the whole site including roadways, footpaths and paved areas. Where hard areas have been subject to the build-up of dirt, mud, debris and algae, these surfaces should be scrubbed clean by the use of water, brushes and/or jet cleaners.
- iii Graffiti should be removed as soon as possible by scrub cleaning and/or the use of solvents. Where cleaning methods fail to remove the graffiti and where feasible, the area should be painted over to match the surrounding area.
- iv All litter should be collected and disposed of.

### **2.1.1** Roads and Car Parks

- v Sweep all roads and car parks as often as required to maintain clear of litter and debris.
- iv Ensure that all road gullies are free from litter and leaves. Dispose of arisings.

### **2.1.1** Pedestrian Pathways

- vii All paved areas must be always maintained in a safe condition.

- viii All compacted gravel surfaces, tarmacadam, and concrete surfaces are to be kept free from litter and loose stones as often as required and dispose of arisings.
- xi Paths are to be swept as required to maintain them clear of litter and debris.
- x Sections of the paths that are damaged are to be repaired or replaced as necessary.
- ix Gullies and channels are to be kept clear of litter and leaves and any arisings disposed of off site.

#### **2.1.4 Weed Control on Hard Surfaces**

- xii All joints in hard paving, perimeters of paved areas bounded by walls and fences are to be spot-treated with an herbicide as often as required to prevent the growth and accumulation of weeds.
- viii Great care is to be taken to avoid drift or runoff of herbicide onto any soft estate areas.
- xiv All compacted and loose granular surfaces are to be treated with a translocated herbicide during the spring period.

#### **2.1.1 Street Furniture**

- xv All landscape furniture (which includes, but is not limited to timber fence, metal fence, security barrier, cycle stands and refuse storage areas) is to be cleared of any dirt, bird fouling and litter by brushing, washing and/or scrubbing on a monthly basis as per manufacturer's guidance. All arisings are to be disposed of safely and appropriately off site.
- viii All landscape furniture is to be inspected on a monthly basis to ensure that they meet the design objectives.

### **2.3 Other**

#### **2.1.1 Litter Picking**

- I The collection of litter is extremely important in defining the appearance of communal areas, and as a consequence the respect with which people will treat and use them. It is important that litter is collected at a rate that is dictated by accumulation, so that the site appears clean. Litter is defined as being inter alia paper, cans, bottles, etc, as well as leaves, twigs and other plant detritus.

#### **2.1.1 Graffiti**

- ii Graffiti is to be removed as soon as possible by scrub/ steam cleaning and/or the use of solvents. Where cleaning methods fail to remove the graffiti and where feasible the area affected is to be painted over to match the surrounding area and bare timber is to be scraped/ sanded clean and treated to match existing treatment.

#### **2.1.1 Vermin Control**

- iii The site should be monitored for the presence of vermin in particular rats associated with community use areas. If necessary, rats will be managed by locating baiting boxes throughout the site. Care will be taken to locate the boxes out of public view to avoid discouraging people from using the facilities available.

#### **2.1.4 Snow Clearance**

- iv All public footpaths and roads are to be kept clear of snow on reaching a depth of 5mm.

## 2.4 Monitoring and Review

### 2.1.1 Landscape Monitoring

- I Routine monitoring is to be undertaken to ensure that operations are undertaken as programmed, that they are achieving their desired outcomes, and that appropriate action is taken to deal with damage and debris arising from vandalism and periods of heavy rainfall, high winds, and heavy snowfall.
- ii Coherent records are to be kept by the Contractor of all management visits and activities carried out to each part of the site.

### 2.1.1 Habitat and Species Monitoring

- iii Where fauna of high conservation status be detected on site e.g. reptiles and roosting bats, the advice of a suitably qualified Ecologist is to be sought as to whether any modifications to management are required.
- iv This will provide an awareness of any ecological issues pertinent to the site and ensure habitat protection and monitoring measures have been considered and implemented. It will ensure ecological matters are at the forefront of the LEMP post Year 5.

## 2.5 Nesting Birds

### 2.1.1 Vegetation Removal

- I The trees and hedgerows on site offered suitable habitat for nesting birds, any vegetation clearance / tree pruning works should be completed outside of the bird nesting season (which is considered to be March to September inclusive). If this is not possible the area should first be checked by a suitably qualified ecologist for any in-use nests. If any in-use nests are found, these should be protected from works via a no-work exclusion buffer (size dependent on species but typically around 5m) demarcated using hazard tape until they are no longer in-use and chicks have fledged (usually around 2-4 weeks).

### 2.1.1 Installation of bird boxes

- ii Installation of bird boxes will provide additional nesting opportunities for birds. Use of boxes such as the Schwegler 1B Nest Box (32mm entrance hole and 26mm entrance hole) (Figure 3) provides a long-term nest box solution requiring limited replacement unlike wooden boxes which need regular replacement as a result of weathering.
- iii Two boxes will be installed on mature trees (see Appendix 2), 2 - 4m from the ground, facing between north and east, to avoid direct sunlight and the wettest wind.
- iv It is also recommended to site a swift box, such as Vivara Pro Burgos WoodStone Swift Nest Box (Figure 3), under the eaves of a building, at least 3m above the ground.
- v Ideally all bird boxes should be placed out of direct sunlight and with a clear flight path.



Figure 3: Bird Box Example



## 2.6 Bats

### 2.1.1 Installation of bat boxes

- I Two bat boxes, such as Schwegler 1FF or Schwegler 2FN (Figure 4), should be placed on suitable, mature, retained trees away from footpaths and roads, and close to good foraging habitat within the development. The location of suitable habitat is shown in Appendix 2. Suitable trees and siting of boxes will be conducted by an ecologist. The tree mounted boxes shall face south (for additional warmth), and be positioned at least 4 metres from the ground, with the entrances being free of overhanging branches. It is also recommended that bird nest boxes be placed 1.5m below each bat box, to ensure that the birds have somewhere to nest and do not inhabit the bat boxes. The bat box dimensions are 430mm high X 270mm wide X 140mm deep and the material is 'Schwegler Woodcrete', a blend of wood, concrete and clay. The boxes are designed to mimic natural roost sites and to provide a stable environment.
- ii Furthermore, two in-cavity bat boxes shall be incorporated into the structure of the properties as they are built. These boxes will consist of Ibstock Enclosed Bat Box 'C' (Figure 4) which shall be positioned at least 3 metres from the ground, facing either south, south-west or south-east (for additional warmth) and close to good foraging habitat (Appendix 2). These in-cavity bat boxes shall not be located directly above windows or doors.
- iii The bat box dimensions are 215mm high x 215mm wide x 105mm deep (small) or 290mm high x 215mm wide x 105mm deep (large) and are made from brick.

Figure 4: Bat Boxes



## 2.7 Great Crested Newts

### 2.1.1 Pond Enhancement

- i As part of proposals, an existing pond will be enhanced within the north-east part of the site boundary, as described in section 2.1.3. Ideally, shading should be limited to 40 per cent of the pond perimeter, with the majority of cover to the north, to provide shelter, and the southern aspect to be kept as open as possible.

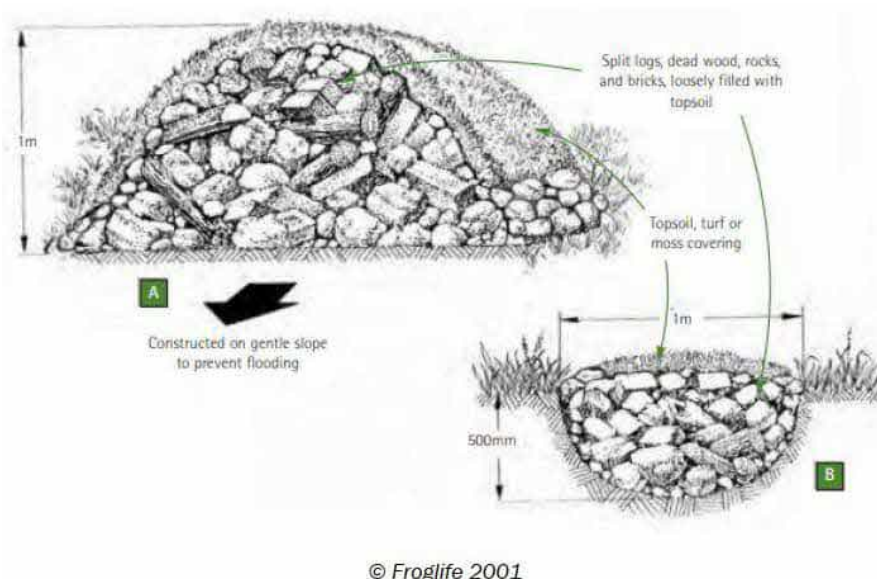
### 2.1.1 Maintenance

- ii The new pond will be subject to management/maintenance measures. This will include:
  - Aquatic vegetation management
  - Clearance of shading tree or scrub cover around margins
  - Desilting and clearance of leaf litter
  - Checking of fish presence and removal through appropriate methods
  - Checking pond condition and remedial action as required
  - Checking for and removal of dumped rubbish

### 2.1.1 Hibernacula

- iii Log piles, rocks and dead wood under dense ground cover will be provided for newt hibernacula by the pond. These will provide important places for newts to rest during the day or during cold or dry weather. Hibernacula should be c. 2m<sup>2</sup> and c. 1m in height and will comprise of log or debris piles surrounded by rough grassland, with a cap composed of topsoil and a turf covering.
- iv It is also advisable to create a pebbly beach on the sloping sides of the pond, graduating the size of stones from large to small. Building this slope from the outside to the floor of the pond will create a ramp for aquatic animals to use.

Figure 5: Hibernacula Example



#### 2.1.4 Construction Phase Mitigation

- v A temporary exclusion fence will be installed to prevent GCN to be harmed or killed during construction. This will be supervised by a licensed ecologist. Throughout the construction period, the temporary exclusion fence will be checked on a monthly basis to ensure that it remains fit for purpose. At the end of the construction period, the temporary exclusion fence will be removed, ensuring that no amphibians are between the barrier and the ground. All ecological supervision will be undertaken by ecologists with a valid class licence to handle GCN.
- vi The development area will undergo a complete strip of grass and topsoil, to level the ground and facilitate the proposed development. This will also be carried out under a watching brief by a licensed ecologist. Only when the clearance works have been completed will the site be released for development. An ecologist will visit the site each month to inspect the amphibian exclusion fence line and monitor compliance with the licensing requirements.

## 2.8 Lighting

- I Due to the close proximity of the site to bat foraging and future bat roost sites efforts should be made to prevent long term impacts to foraging bats by the implementation of a bat friendly lighting scheme. Artificial lighting can affect the way that bats use habitats in a number of ways, depending on the species and proximity to a roost. Direct bright lighting of a roost can cause bats to delay emergence from a roost and could even cause them to desert the roost (BCT and ILE, 2018). The prey items for British bats are flying insects, and many flying insects are attracted to certain types of artificial light sources, especially those that emit light with an ultraviolet component (BCT and ILE, 2018; Rydell, 2006). Some species of bat recorded within the Site are known to be attracted to insects gathered around light sources (such as pipistrelle and noctule), whereas others actively avoid lit areas (such as Myotis species and long-eared bats) (BCT and ILE, 2018; Rydell, 2006). Lighting within the Site could therefore be expected to affect the ways that the bats in the area are able to use the Site. It is also possible that artificial lighting within the Site could attract insects to the lit areas from outside the Site, acting as a sink for insect activity and potentially resulting in the adjacent areas supporting lower numbers of insects and therefore a reduced availability of food for bats within these areas.

ii Lighting will be carefully designed adjacent to existing (and potentially new) foraging areas. Where artificial lighting cannot be avoided the lighting scheme will be designed with reference to the Bat Conservation Trust and Institute of Lighting Professionals Guidance 5,6,7 and will be designed to reduce light spill and be downwardly directional. Of primary significance however, lighting must be avoided at all measures around and near to new / retained roosting features for bats which are detailed below. All new lighting will meet the current environmental standards of good practice in order to reduce potential light pollution and will use the lowest intensity for its purpose. This will minimise light spill onto foraging routes and minimise potential disturbance to dark corridors.

iii Therefore, associated site lighting proposals must consider the following:

- Avoid lighting where possible;
- Install lamps and the lowest permissible density;
- Install lamps with the shortest permissible column height;
- Lamps should be fitted with light spill accessories directing light to the road and avoiding upward spill and spill onto any newly planted trees/ hedgerows;
- Use of low intensity bulbs to minimise light intensity and impacts to bats; and
- The use of timers and dimmers to avoid lighting areas of the site all night is recommended.

## 2.9 Timescales

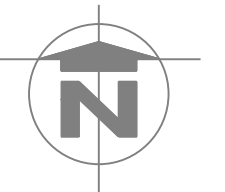
I Details of the timescales of the implementation of all proposed works are provided in Appendix 3.



### 3 REFERENCES

- i Institution of Lighting Professionals and Bat Conservation Trust (2018). Bats and Artificial Lighting in the UK – Bats and the Built Environment Series Guidance Note. 08/18
- ii BS 42020:2013 Biodiversity – Code of Practice for Planning and Development 2013: The British Standards Institution.
- iii Collins J eds. 2016. Bat Surveys: Good Practice Guidelines, 3<sup>rd</sup> Edition. London: Bat Conservation Trust.
- iv Department of Communities & Local Government, 2021. National Planning Policy Framework, London: DCLG.
- v Chartered Institute of Ecology and Environmental Management, 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. Winchester: CIEEM.
- vi Chartered Institute of Ecology and Environmental Management, 2017. Guidelines for Preliminary Ecological Appraisal. 2nd ed. Winchester: CIEEM.
- vii English Nature, 2001. Great Crested Newt Mitigation Guidelines. Peterborough: English Nature. Franklin, P.S., 1993.
- viii Gent, A. H., and Gibson, S. D., eds. (2003) Herpetofauna Workers' Manual. Peterborough, Joint Nature Conservation Committee.
- ix Institute of Environmental Assessment, 1995. Guidelines for Baseline Ecological Assessment. London: E & FN Spon.
- xii Joint Nature Conservancy Council, 2016. Handbook for Phase 1 habitat survey (revised 2016). Peterborough: JNCC.
- xvi Joint Nature Conservation Committee, 2004. Bat Workers Manual. 2nd ed. Peterborough: s.n.
- xiv Office of the Deputy Prime Minister, 06/2005. Government Circular: Biodiversity and Geological Conservation - Statutory Obligations and their impact within the planning system. London: ODPM.
- xv RammSanderson Ecology Ltd. (2019). Ecological Impact Assessment of land at Blotts Barn, Raunds, Northampton, RSE\_2046\_01\_V1
- viii 20/00486/FUL: TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDEND) GRANT OF PLANNING PERMISSION: B1 Office Unit and Ancillary Storage Barn at Blotts Barn, Northamptonshire



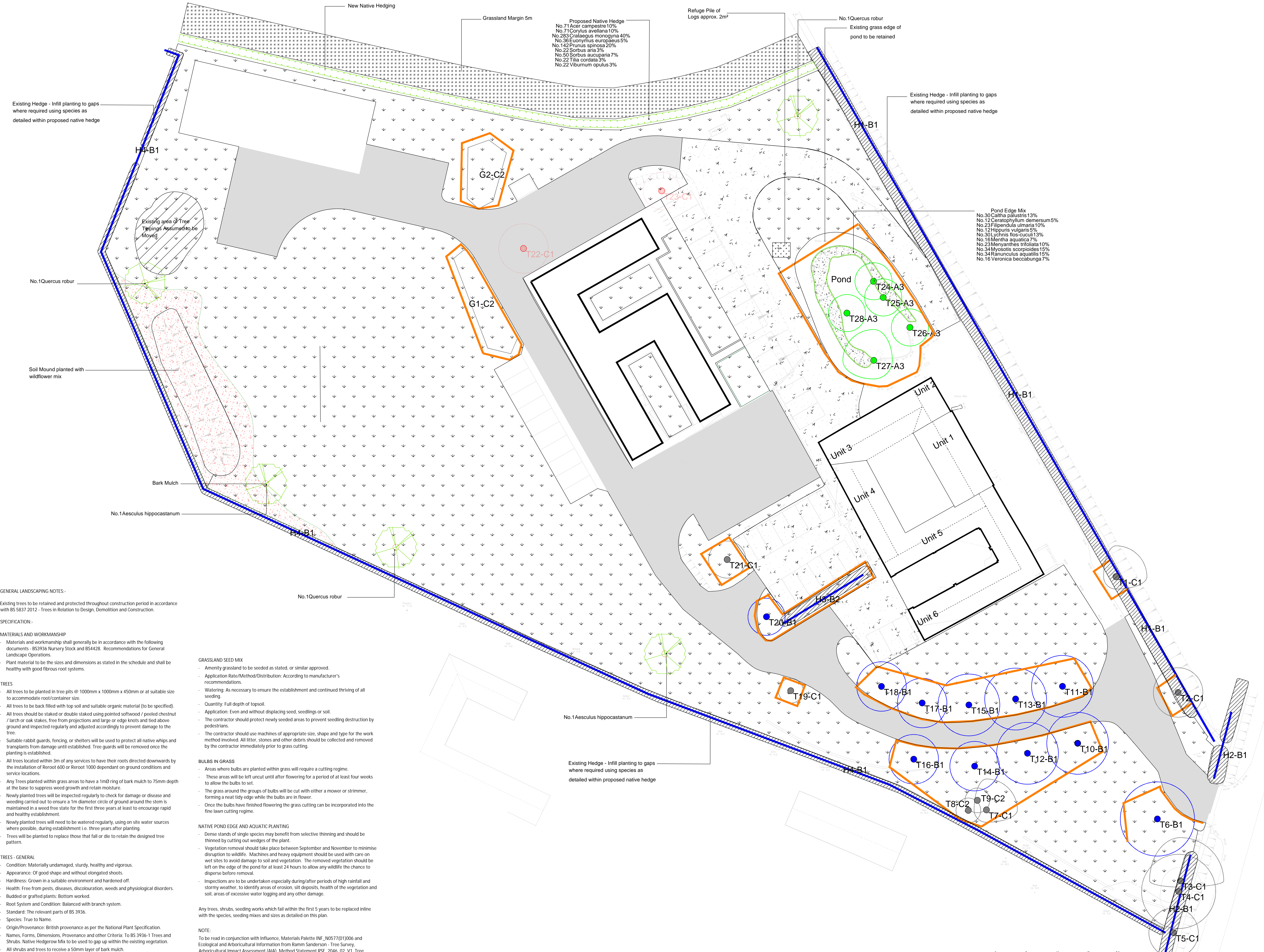


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Revision	Drawn	Comments	Date
A	LA	Updated Landscaping (Trees & Bulbs)	20.12.19
B	LA	Existing tree information added to key	02.01.20

**KEY**

- Existing Tree Groups to Remain
- Existing Trees to Remain
- Existing Trees to be Removed
- Proposed Trees
- Proposed Bark Mulch - To base of newly planted trees, 1mD at 75mm depth
- Existing Hedging - To be enhanced with infill planting, using species as detailed within proposed native hedge
- Proposed Native Hedging
- Proposed Aquatic and Marginal Planting
- Proposed Grassland Margin - Grass mix Emergent EGS - Meadow grass mixture for sunny soils, sown at 1.5g/m<sup>2</sup>
- Proposed Willowflower Areas - Willowflower mix Emergent EGS - Meadow grass mixture for sunny soils, sown at 1.5g/m<sup>2</sup>
- Existing Amenity Grass (rough grass)
- Existing area of Tree Toppings Assumed to be Moved
- Proposed Existing Tree Protection Fencing - to be in place during construction works



**GENERAL LANDSCAPING NOTES:-**

- Existing trees to be retained and protected throughout construction period in accordance with BS 5837 2012 - Trees in Relation to Design, Demolition and Construction.

**SPECIFICATION:-**

**MATERIALS AND WORKMANSHIP**

- Materials and workmanship shall generally be in accordance with the following documents - BS3936 Nursery Stock and BS4428. Recommendations for General Landscape Operations.
- Plant material to be the sizes and dimensions as stated in the schedule and shall be healthy with good fibrous root systems.

**TREES**

- All trees to be planted in tree pits @ 1000mm x 1000mm x 450mm or at suitable size to accommodate root/container size.
- All trees to be back filled with top soil and suitable organic material (to be specified).
- All trees should be staked or double staked using pointed softwood / peeled chestnut / larch or oak stakes, free from projections and large or edge knots and tied above ground and inspected regularly and adjusted accordingly to prevent damage to the tree.
- Suitable rabbit guards, fencing, or shelters will be used to protect all native whips and transplants from damage until established. Tree guards will be removed once the planting is established.
- All trees located within 3m of any services to have their roots directed downwards by the installation of Reroot 600 or Reroot 1000 dependant on ground conditions and service locations.
- Any trees planted within grass areas to have a 1mD ring of bark mulch to 75mm depth at the base to suppress weed growth and retain moisture.
- Newly planted trees will be inspected regularly to check for damage or disease and weeding carried out to ensure a 1m diameter circle of ground around the stem is maintained in a weed free state for the first three years at least to encourage rapid and healthy establishment.
- Newly planted trees will need to be watered regularly, using on site water sources where possible, during establishment i.e. three years after planting.
- Trees will be planted to replace those that fall or die to retain the designed tree pattern.

**TREES - GENERAL**

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root System and Condition: Balanced with branch system.
- Standard: The relevant parts of BS 3936.
- Species: True to Name.
- Origin/Provenance: British provenance as per the National Plant Specification.
- Names, Forms, Dimensions, Provenance and other Criteria: To BS 3936-1 Trees and Shrubs. Native Hedgerow Mix to be used to gap up within the existing vegetation.
- All shrubs and trees to receive a 50mm layer of bark mulch.

**WATERING**

- All trees/shrubs/hedges will be watered after planting and to be watered as necessary to ensure survival.

**GRASSLAND SEED MIX**

- Amenity grassland to be seeded as stated, or similar approved.
- Application Rate/Method/Distribution: According to manufacturer's recommendations.
- Watering: As necessary to ensure the establishment and continued thriving of all seeding.
- Quantity: Full depth of topsoil.
- Application: Even and without displacing seed, seedlings or soil.
- The contractor should protect newly seeded areas to prevent seedling destruction by pedestrians.
- The contractor should use machines of appropriate size, shape and type for the work method involved. All litter, stones and other debris should be collected and removed by the contractor immediately prior to grass cutting.

**BULBS IN GRASS**

- Areas where bulbs are planted within grass will require a cutting regime.
- These areas will be left uncut until after flowering for a period of at least four weeks to allow the bulbs to set.
- The grass around the groups of bulbs will be cut with either a mower or strimmer, forming a neat tidy edge while the bulbs are in flower.
- Once the bulbs have finished flowering the grass cutting can be incorporated into the fine lawn cutting regime.

**NATIVE POND EDGE AND AQUATIC PLANTING**

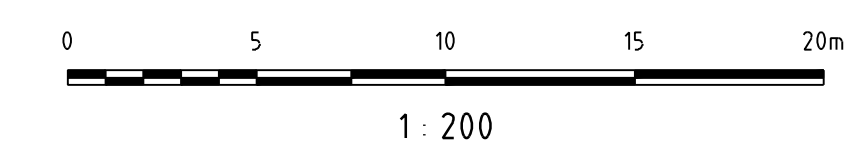
- Dense stands of single species may benefit from selective thinning and should be thinned by cutting out wedges of the plant.
- Vegetation removal should take place between September and November to minimise disruption to wildlife. Machines and heavy equipment should be used with care on wet sites to avoid damage to soil and vegetation. The removed vegetation should be left on the edge of the pond for at least 24 hours to allow any wildlife the chance to disperse before removal.
- Inspections are to be undertaken especially during/after periods of high rainfall and stormy weather, to identify areas of erosion, silt deposits, health of the vegetation and soil, areas of excessive water logging and any other damage.

Any trees, shrubs, seeding works which fall within the first 5 years to be replaced inline with the species, seeding mixes and sizes as detailed on this plan.

**NOTE:**

To be read in conjunction with Influence, Materials Palette INF\_N0577(01)006 and Ecological and Arboricultural Information from Ramm Sanderson - Tree Survey, Arboricultural Impact Assessment (AIA), Method Statement RSE\_2046\_02\_V1, Tree Protection Plan RSE\_2046\_TCP and Ecological Impact Assessment (Ecia) RSE\_2046\_01\_V1.

All tree positions to be checked in accordance with lighting and service plans which were not available at the time the listed drawings above were created.



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**PROJECT**  
Blotts Barn

**CLIENT**  
Nineteen 47

**TITLE**  
Landscape Strategy Plan

SCALE: 1:200 DATE: 11.11.19  
DRAWN: TW CHECKED: LA

JOB NO: N0577 DWG NO: (96)001 REV NO: B ORIGINAL SIZE: A0

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# Key

- Site boundary
- Hibernacula
- ◆ Bat box
- ◆ Bird box

**Planting Schedule**

- Native trees
- Native shrubs
- Native grasses
- Native wildflowers
- Native ferns
- Native mosses
- Native lichens
- Native invertebrates
- Native fungi
- Native bacteria
- Native archaea
- Native viruses
- Native protists
- Native nematodes
- Native molluscs
- Native arachnids
- Native insects
- Native vertebrates



**influence**

Project: RSE\_6090 Blott's Barn, Raunds  
 Client: Bowbridge Group

Author: MH  
 Date: 14/02/2023  
 Fig: 01  
 A4 Scale: 1:1500  
 ID: RSE\_6090\_EP\_0223\_V1R2

**RammSanderson**

Title: Enhancement Plan  
 Project: RSE\_6090 Blott's Barn, Raunds  
 Client: Bowbridge Group

Date: 14/02/2023 Fig: 01 Author: MH  
 A4 Scale: 1:1500 ID: RSE\_6090\_EP\_0223\_V1R2

## Appendix 3: Management Timetable

Ecological Feature	Prescription	Timing	Pre-construction	During construction	Annual	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
Trees and Hedgerows	Planting of stock	Winter				X					See section 2.1.1 and 2.1.2 for further details
	Replacement of failed stock	September - February				X	X	X	X	X	
	Removal of guards	As required						X	X	X	
	Watering in times of drought	During periods of prolonged drought				X	X	X			
	On site vegetation removal	October - February				X					
Grassland margin	Ground preparation	Autumn/Spring				X					See section 2.1.4 for further details
	Sow seed mix	Spring				X					
	Cutting (40-60mm)					X					



Ecological Feature	Prescription	Timing	Pre-construction	During construction	Annual	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
	Cutting (150mm)	End of summer					X	X	X	X	
	Watering in times of drought	During periods of prolonged drought				X	X	X			
Wildflower areas	Ground preparation	Autumn/Spring				X					See section 2.1.5 for further details
	Sow seed mix	Spring				X					
	Cutting	Spring				X	X				
	Cutting 2/3	End of summer			X	X	X	X	X	X	
	Watering in times of drought	During periods of prolonged drought				X	X	X			
Existing amenity grass	Cutting	2-4 week cycle			X	X	X	X	X	X	See section 2.1.6 for further details
	Scarifying	Autumn			X	X	X	X	X	X	

Ecological Feature	Prescription	Timing	Pre-construction	During construction	Annual	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
	Leaf clearance	October - January			X	X	X	X	X	X	
Bat boxes	Installation on trees		X								For further details see section 2.5.1 and Appendix 2
	Installation in buildings			X							
Bird boxes	Installation on trees		X			X					For further details see section 2.4.2 and Appendix 2
Pond	Removal of dense vegetation surrounding existing pond	October-February	X								See section 2.1.3 and 2.6.1 for further details
	Aquatic vegetation planting	November - February				X					
	Aquatic vegetation management and clearance of shading tree or scrub cover around margins	October-February					X		X		

Ecological Feature	Prescription	Timing	Pre-construction	During construction	Annual	Year 1	Year 2	Year 3	Year 4	Year 5	Comments
	Desilting and clearance of leaf litter	October-February					X		X		
	Checking of fish presence and removal through appropriate methods	Every 6 months Removal as required			X	X	x	X	X	x	
	Checking pond condition and remedial action	Every 6 months Remedial action as required			x	x	x	x	x	x	
Hibernacula creation						x					See section 2.6.3 for further details