United Environmental Services Ltd
1 Booths Park,
Chelford Road,
Knutsford,
Cheshire
WA16 8QZ

www.ues.org.uk
enquiries@ues.org.uk
01565 757788

GREEN INFRASTRUCTURE STATEMENT

At

Lower Park Farm
Parkside
Rossett
Wrexham
LL12 0BN

NGR: SJ 38503 54795

Prepared for: Rossett Park Farming c/o Hourigan Planning Ltd.
Written by: Daniel Smith, UES Ecologist
Approved by: Kathryn James, UES Senior Project Manager

[redacted]

Date: 20th January 2025
UES reference: UES04733/03

CONTENTS

1 INTRODUCTION 3
1.1 Author and qualifications 3
1.2 Development details 3
1.3 Survey objectives 3

2 LEGISLATION AND PLANNING POLICY 5

3 BASELINE DATA 6
3.1 Preliminary ecological appraisal 6
3.2 Great crested newt impact assessment 6

4 GREEN INFRASTRUCTURE 8
4.1 Retained habitats 8
4.2 Landscaping and habitat enhancement 8
4.3 Protected species 9

5 CONCLUSION 11

APPENDICES 12
Appendix 1 – Site plan 12
Appendix 2 – Ecological enhancement plan 13

1 INTRODUCTION

1.1 Author and qualifications

This report is compiled and written by Daniel Smith BSc MRes, Ecologist at United Environmental Services (UES) Ltd. Daniel holds a level 3 Botanical Society for Britain and Ireland (BSBI) field identification skills certificate (FISC), which certifies her as competent to undertake phase 1 and UKHab surveys. Daniel is listed as an accredited agent on the bat survey licence of Toby Hart (S092789/1). As such, he has been deemed competent to undertake licensable activities such as using a torch and endoscope to survey for bats. Daniel is licensed by Natural Resources Wales (NRW) to disturb, take and handle great crested newts (GCN) *Triturus cristatus* under licence number S093616/1.

This report has been verified by Kathryn James BSc MRes MCIEEM, UES Senior Project Manager. Kathryn holds a level 4 FISC, which certifies her as competent to undertake phase 1 habitat surveys, UKHab and national vegetation classification (NVC) surveys. Kathryn is licensed by NRW to disturb, take and handle all species of bats, other than greater or lesser horseshoe, under licence number S091413/1. Kathryn is also licensed by NRW to disturb, take and handle GCN under licence number S094739/1.

1.2 Development details

This report supports a retrospective planning application for a compacted aggregate footpath at Lower Park Farm. The footpath is approximately 2m wide and 2.4km long and is located around the periphery of the agricultural pasture fields of Lower Park Farm. The footpath is used as a dog walking trail by the local community, as well as a track for regular farming activities. A small car park has also been constructed within the eastern section of the site for visitor parking and bale storage.

The construction of the footpath and car park has resulted in the loss of approximately 8m of hedgerow and 0.76ha of grazed pasture. No excavation works were undertaken during the development. Instead, the aggregate was placed directly on top of the grass which was cut prior to the application of the aggregate.

In order to inform this retrospective application, a suite of ecological surveys was undertaken at the site by UES in 2024. These surveys included:

- Preliminary ecological appraisal (PEA) walkover survey (report reference UES04733/01)
- Great crested newt impact assessment (report reference UES04733/02)

1.3 Survey objectives

UES was commissioned in October 2024 to prepare a green infrastructure statement in support of a retrospective planning application for a compacted aggregate footpath at Lower Park Farm, Rossett. This was completed in order to:

- Identify where existing green infrastructure could be found pre-development and where there may be opportunities for improvement, such as through the provision of new green infrastructure, or the enhancement of existing green infrastructure.

- Consider what improvements can be made to biodiversity and ecosystem resilience, as well as consider the needs of local communities and society as a whole and how these can be met through green infrastructure.

- Demonstrate how the stepwise approach has been applied throughout development design.

2 LEGISLATION AND PLANNING POLICY

In February 2024 the Welsh Government published Planning Policy Wales Edition 12 to address the nature emergency which contains a revised Chapter 6 'Distinctive and Natural Placemaking and Well-Being'.

One key change is the requirement for all planning applications to be submitted with a 'green infrastructure statement'. In Planning Policy Wales paragraph 6.2.1., green infrastructure is defined as '*the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. Component elements of green infrastructure can function at different scales and some components, such as trees and woodland, are often universally present and function at all levels. At the landscape scale green infrastructure can comprise entire ecosystems such as wetlands, waterways, peatlands and mountain ranges or be connected networks of mosaic habitats, including grasslands. At a local scale, it might comprise parks, fields, ponds, natural green spaces, public rights of way, allotments, cemeteries and gardens or may be designed or managed features such as sustainable drainage systems. At smaller scales, individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls can all contribute to green infrastructure networks.'*

Paragraph 6.2.12 states that '*a green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the stepwise approach (Paragraph 6.4.15) has been applied.'*

The stepwise approach, as outlined below, demonstrates the sequential approach that must be adopted as part of a development to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort compensated for. Enhancement must be secured by delivering a biodiversity benefit primarily on site or immediately adjacent to the site, over and above that required to mitigate or compensate for any negative impact

1. Avoid
2. Minimise
3. Mitigate / restore
4. Compensate onsite
5. Compensate offsite
6. Refuse planning permission

3 BASELINE DATA

3.1 Preliminary ecological appraisal

A desk study and preliminary ecological appraisal survey were undertaken by UES on 30th October 2024, including searches using the Multi Agency Geographic Information Centre (MAGIC).

The land within the entire property consists of a working dairy farm which is composed of numerous agricultural pasture fields demarcated by hedgerows and scattered trees. Numerous ponds are located within the fields which fenced off to prevent access by cattle. The construction of the footpath and car park has resulted in the loss of approximately 8m of hedgerow and 0.76ha of grazed pasture.

The following principal habitat types were characterised on site or within the immediate vicinity of the site:

- Artificial unvegetated - unsealed surface
- Built linear features
- Modified grassland
- Other native hedgerow

The PEA provides an assessment of potential ecological impacts associated with the development of the land parcel. The PEA has highlighted potential issues with the following ecological receptors on or adjacent to site: amphibians, birds, hedgehogs, reptiles, hedgerows, trees.

3.2 Great crested newt impact assessment

There are eleven mapped ponds within 250m of the development site, with the closest located approximately 80m to the west of the trail. A GCN impact assessment was undertaken by UES on 30th October 2024. The objectives of the survey were to establish the suitability of the development site for GCNs, and to provide an assessment of the impacts of the development and required compensation. All ponds and aquatic features on site and within 250m of the site boundary were assessed for their potential to support GCNs using the Habitat Suitability Index (HSI). The results of the HSI assessment are detailed below:

- Ponds 3, 4, 5, 6, 7 and of good suitability for GCNs.
- Pond 2 is of average suitability for GCNs.
- Ponds 9, 10 and 11 are of below average suitability for GCNs.
- Pond 1 is of poor suitability for GCNs.

The terrestrial habitats within the development footprint are broadly suitable for GCNs. The hedgerows provide sheltered commuting and foraging opportunities, whilst there are also hibernation opportunities in the exposed root systems in the hedgerows.

No excavation works were undertaken during the development. Instead, the aggregate was placed directly on top of the grass which was cut prior to the application of the aggregate. Therefore, the hedgerow and any amphibians present are highly unlikely to have been directly impacted as a result of the development. However, GCN could have been indirectly impacted due to the partial loss of the green corridor at the base of the perimeter hedgerows.

This report provides details of how habitats provided to compensate for the loss of terrestrial amphibian habitat will be created and managed though the operation phase of the development. This includes the creation of a wildflower grassland strip along the trail and native species hedgerow planting by the new car park / bale storage area.

4 GREEN INFRASTRUCTURE

4.1 Retained habitats

4.1.1 Trees and hedgerows

The majority of the development site comprises intensely managed modified grassland, which is of limited value to wildlife, and as such was prioritised for development. Whereas higher quality habitats, such as hedgerows and trees, were prioritised for retention.

The construction of the footpath and car park has resulted in the loss of a small section of hedgerow (approximately 8m) in order to facilitate access; all of the trees with the hedgerows onsite were retained as part of the development. The non-invasive construction technique will have also ensured that the root systems of the hedgerows were not impacted during construction.

The development will ensure the long-term retention and continued management of hedgerows and trees on site, maintaining their structural diversity and ecological value. Appropriate compensation will be provided onsite by way of replacement planting to offset the minor loss of hedgerows.

The approach of avoid and minimise has been followed in balancing the need to create a serviceable and developable site area whilst allowing for the retention of existing habitats of high biodiversity value, which has led to the decision on the location and extent of hedgerow loss.

4.1.2 Modified grassland

The development has resulted in the loss of approximately 0.76ha of modified grazed pasture grassland, which is of relatively poor-quality ecological value. However, given its location at the base of the perimeter hedgerows, the development could have resulted in the potential loss of habitat corridors for commuting wildlife. Whilst it not been possible to avoid the loss of this habitat, it will be compensated for by creating a 2m wide wildflower grassland strip alongside the trail. This accords with the stepwise approach to minimise impacts and mitigate any direct impacts.

4.2 Landscaping and habitat enhancement

To increase biodiversity on site the proposed development has been designed to incorporate the following landscaping proposals: native hedgerow planting, species-rich grassland and wildflower meadows.

4.2.1 Native hedgerow planting

26.54m of double staggered native hedgerow will be planted on the western boundary of the car park / bale storage area. The species and composition of the newly planted hedgerow includes:

- Up to 85% blackthorn *Prunus spinosa* combined with hawthorn *Crataegus monogyna*.
- 5-15% hazel *Corylus avellana* and/or field maple *Acer campestre*.
- 0-5% of holly *Ilex aquifolium*, field rose *Rosa arvensis*, gooseberry *Ribes uva-crispa*, bird cherry *Prunus padus* and dog rose *Rosa canina*.

Native hedgerow planting will provide foraging opportunities for invertebrates including larval stages, adult herbivorous species and pollinators. Providing a range of planted species will support a greater diversity of invertebrate species, which will in turn benefit other faunal species that will predate these invertebrates, such as bats and birds. In addition, the hedgerows will provide increased nesting opportunities for birds and sheltered commuting opportunities for amphibians and mammals.

4.2.2 Species-rich grassland and wildflower meadows

Species-rich grassland and wildflower meadows will provide immediate benefits for wildlife in the form of foraging, breeding and sheltering opportunities. In the longer term, the grassland will also be colonised naturally by additional native plant species.

A 2m wide rough grassland strip will be created alongside the trail as compensation for the loss of pastureland around the fields. This will also ensure cross-compliance which requires farmers to maintain green cover on land within 2m of the centre of a hedge. The grassland will be seeded with a wildflower mix suitable for use in an improved field with nutrient rich soils, and will be fenced off from the pasture fields in order to prevent grazing on this 2m strip.

4.3 Protected species

The preliminary ecological appraisal has highlighted potential issues with the following ecological receptors on or adjacent to site: amphibians, birds, hedgehogs and reptiles.

4.3.1 Amphibians

The terrestrial habitats within the development footprint are broadly suitable for GCNs, and there are ponds present within 250m of site that have potential to support GCN.

The non-invasive construction technique will have ensured that amphibians, including GCNs, were not directly impacted as a result of the development. However, GCN could have been indirectly impacted due to the partial loss of the green corridor at the base of the perimeter hedgerows. A 2m wide wildflower grassland strip will be reinstated alongside the trail, which will ensure that habitat corridors are maintained around site foraging and commuting GCNs, and that the development does not result in habitat fragmentation.

The hedgerows onsite already provide extensive hibernation opportunities; therefore, it is not considered necessary to provide additional hibernacula onsite such as log and brash piles.

4.3.2 Breeding birds

No trees have been felled as part of the development; however, the loss of 8m of hedgerow has resulted in a minor reduction in foraging and nesting resources for breeding birds.

To compensate for the loss of the nesting opportunities, 10 bird boxes will be installed onto trees onsite. All the boxes will be installed on the southern boundary of the trail. The bird boxes must be at a minimum height of 2m and oriented between north and east, thus avoiding strong sunlight and the wettest winds.

In addition, the provision of 26.54m of native hedgerow will increase the capacity of the site with regards to breeding birds.

4.3.3 Other species

Once the compensation has been implemented, the landscaping and habitat enhancements will provide a biologically diverse landscape. The bottom-up approach to improving the biodiversity on site will ensure that the habitats on site can support a range of invertebrate species and provide other food sources, which will then in turn benefit fauna further up the food chain.

No fragmentation of habitats or severance of commuting corridors onsite is expecting to occur post development following implementation of the compensation measures.

5 CONCLUSION

UES were instructed to identify the key ecological constraints onsite and ensure that the highest quality habitats were retained or replaced as part of the scheme design. Post-development discussions between UES, the client and Wrexham County Borough Council's Ecologist were taken to inform design and layout, with regards to habitat retention, enhancement and creation.

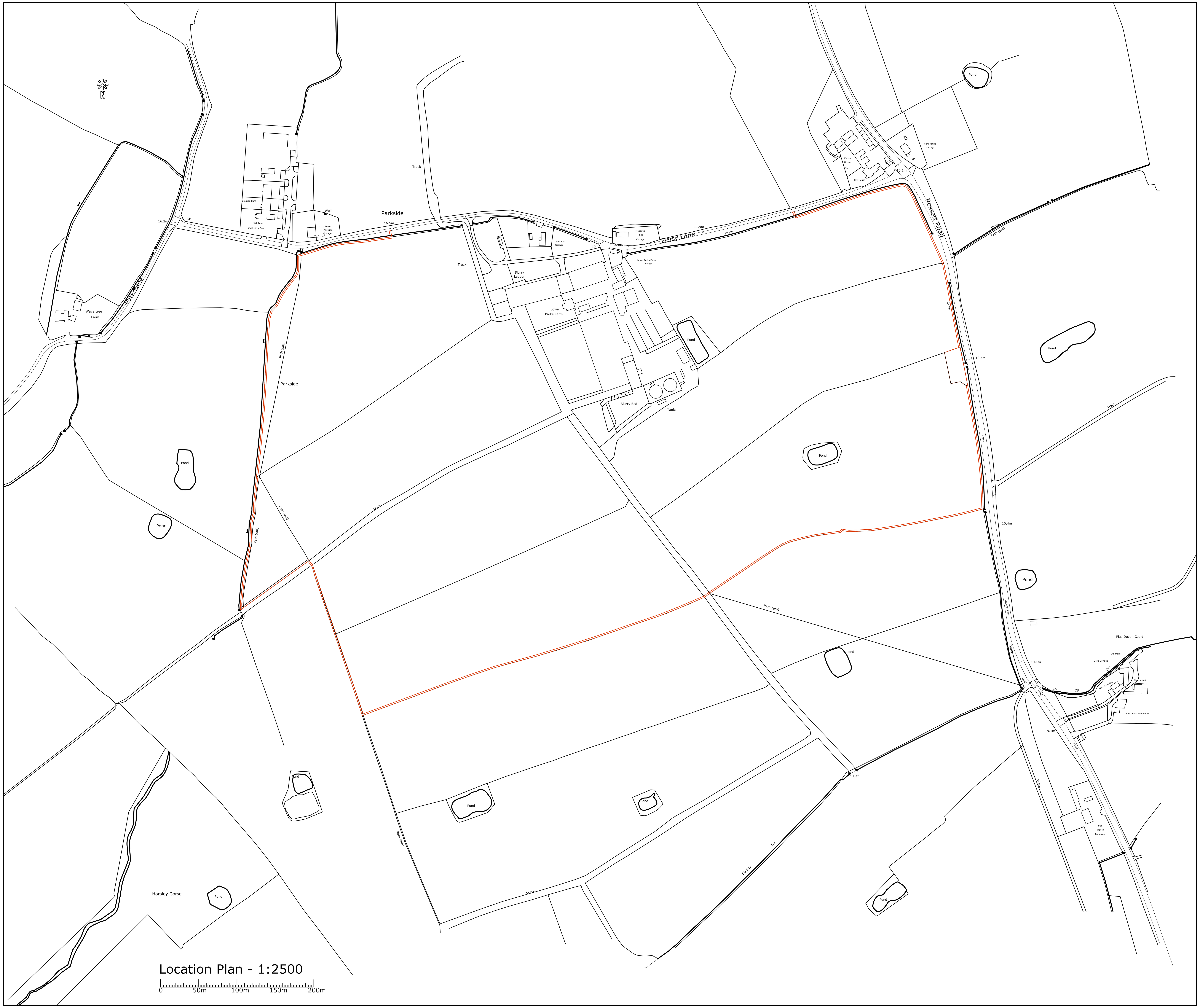
The post-development layout has been designed to be ecologically sympathetic and ensures that the retained and proposed green infrastructure onsite creates effective links with existing ecological networks offsite. The landscaping proposals onsite look to retain and enhance the linear wildlife corridor along the 2.4km trail, which connects with the ecological network of hedgerows in the wider landscape. The proposed green infrastructure will compensate for the loss of existing vegetation, ensuring that the ecological integrity of the site is maintained and enhanced. The retained and newly planted native hedgerows and habitat connectivity features on site, particularly at the boundaries, coupled with the creation of ecologically valuable habitats around the site will contribute to the green infrastructure network onsite promoting the natural distribution of species.

The impact on habitats and species of principal importance has been minimised, as far as is practicable; the small areas that have been lost are to be compensated for through a substantial ecological enhancement scheme onsite which goes over and above what is required to mitigate or compensate for any negative impact. In addition, the provision of a mosaic of connected habitats along the site boundaries will contribute to the green infrastructure network onsite promoting the natural distribution of species. In summary, the development provides a net benefit for biodiversity ensuring that ecological resilience is maintained within the wider landscape.

APPENDICES

Appendix 1 – Site plan

This drawing is the copyright of G & S Design Ltd
and may not be altered or reproduced without
written consent.



© Crown copyright 2024. All rights reserved.
License number AC0000816843

Revision:

i	06-08-24	SB	Area edged red revised
ii	08-08-24	SB	Area edged red revised

Title:
Location Plan
Lower Park Farm,
Parkside,
Wrexham, LL12 0BN

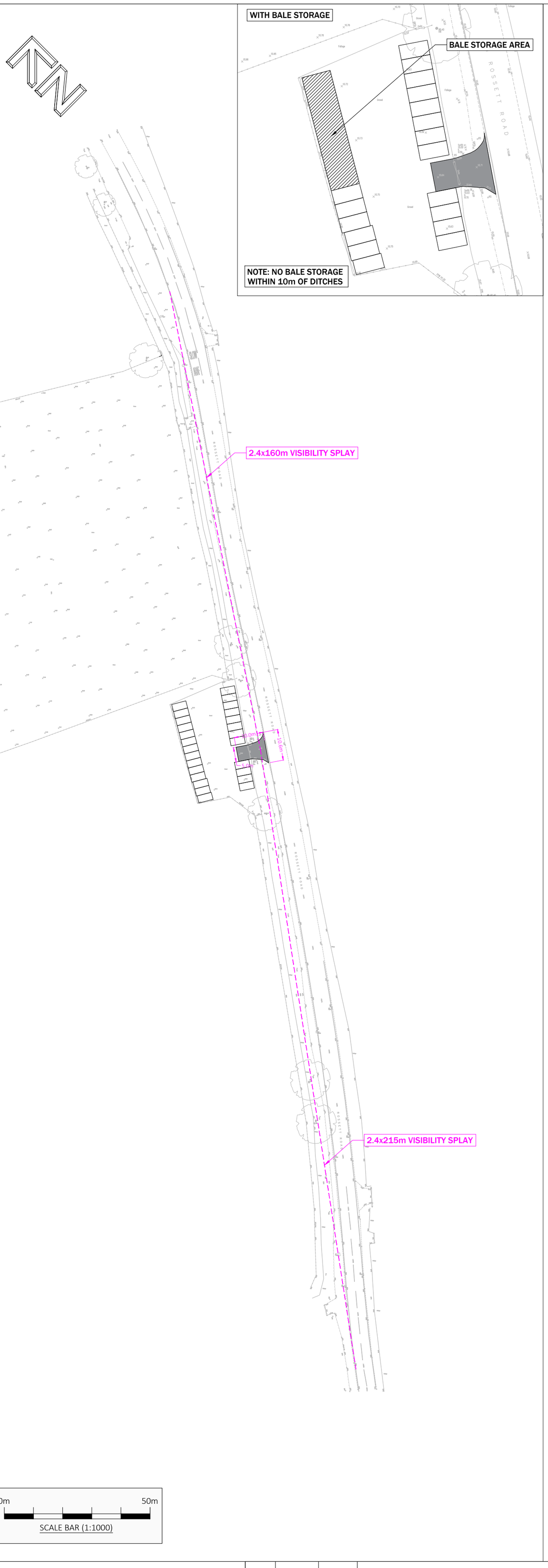
Client:
OS Planning

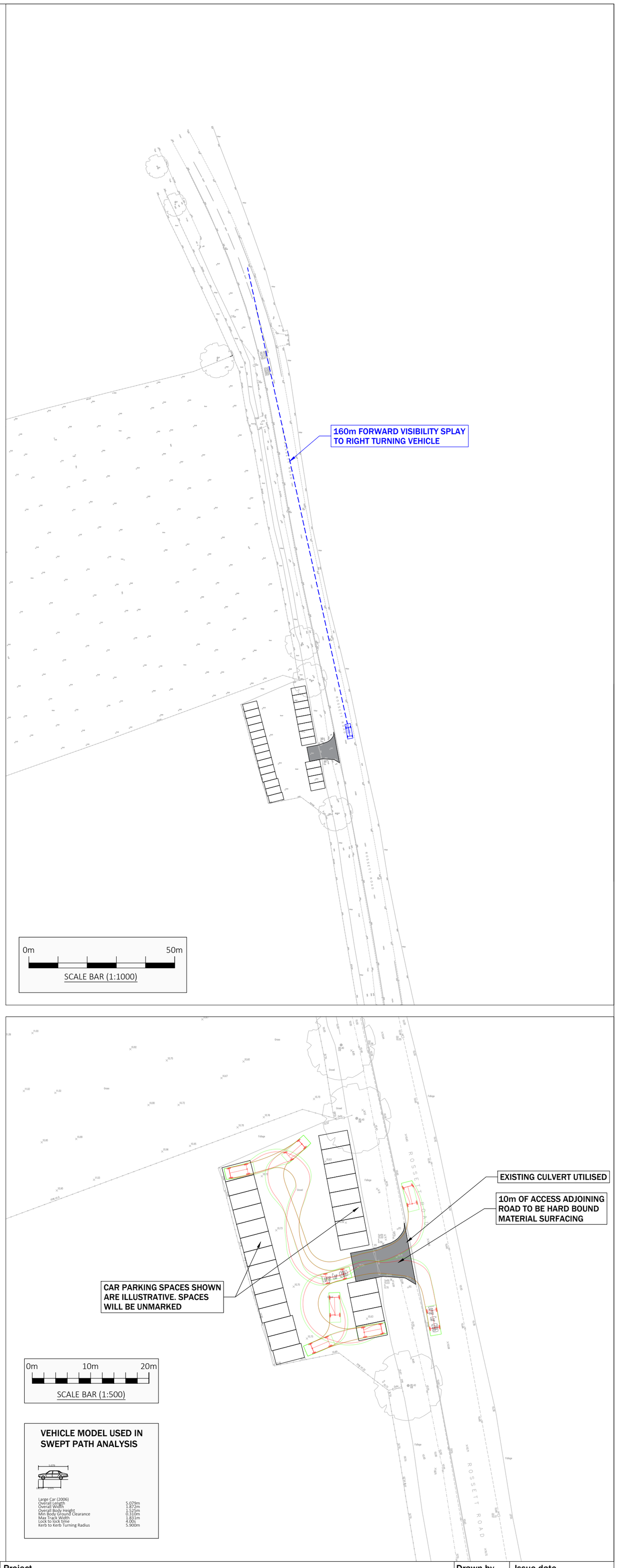
Scale:	Drawing number:	
1:2500@A1	1270-01	

Date:	Drawn by:	Revision:
30/07/24	SB	i i

G&S DESIGN LTD

The Rushes, Norley Road, Cuddington
Northwich, Cheshire CW8 2TB
Telephone 01606 834020





VEHICLE MODEL USED IN SWEPT PATH ANALYSIS

Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

Prime Transport Planning
Together for Progress
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
B	16/01/25	RO	VARIOUS AMENDMENTS
A	02/01/25	RO	PARKING AMENDED

Status

INFORMATION

Project

THE TAIL TRAIL, ROSSETT ROAD, HOLT, WREXHAM

Title

SITE ACCESS VISIBILITY AND CAR PARK AREA

Drawn by	Issue date
RO	28 NOV 2024

Scale(s)

1:1000 / 1:500 @ A2

Drawing No

P24092-001B

Appendix 2 – Ecological enhancement plan

This drawing is the copyright of G & S Design Ltd and may not be altered or reproduced without written consent.

POINTS A - B DENOTE LOCATION OF NEW DOUBLE ROW STAGGERED NATIVE HEDGE - REFER TO SUBMITTED GIS

★ DENOTES LOCATIONS OF NEW BIRD BOXES - REFER TO SUBMITTED GIS

SEE SUBMITTED GIS FOR DETAILS OF WILDFLOWER STRIP PLANTING

BOUNDARY 1 NORTH

BOUNDARY 2 EAST

BOUNDARY 3 SOUTH

BOUNDARY 4 WEST

BOUNDARY 5 NORTH

A

B

29.5+ m

Location Plan - 1:2500

0 50m 100m 150m 200m

© Crown copyright 2024. All rights reserved.
License number AC0000816843

Revision:

i	06-08-24	SB	Area edged red revised
ii	08-08-24	SB	Area edged red revised

Title: Location Plan Lower Park Farm, Parkside, Wrexham, LL12 0BN		
Client: OS Planning		
Scale: 1:2500@A1	Drawing number: 1270-01	
Date: 30/07/24	Drawn by: SB	Revision: i i

G&S DESIGN LTD
The Rushes, Norley Road, Cuddington
Northwich, Cheshire CW8 2TB
Telephone 01606 834020