Landscape & Biodiversity Specification Report

Full planning application for a poultry installation extension and all associated works

At

Upper Bryn, Abermule, Montgomery, SY15 6JW

Prepared for WL Hamer (T Hamer and I Lloyd)

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1.0 INTRODUCTION

The Powys Local Development Plan states within Policy DM2 that;

Development proposals which would impact on the following natural environment assets will only be permitted where they do not unacceptably adversely effect:

2C. Habitats and Species of principal importance for the purposes of maintaining and enhancing biodiversity' as identified by Section 7 of the Environment (Wales) Act 2016. Hedgerows are included on this list and are beneficial to a wide range of biodiversity including bats, nesting birds, small mammals, lichen and fungi.

3B. Local Biodiversity Action Plan Habitats and Species. Powys LBAP includes hedgerows under the Linear Habitats Action Plan: 'Linear habitats are important to a wide variety of species as refuges, breeding and feeding sites and as links between habitats of high biodiversity value'.

5. Trees, woodlands and hedgerows of significant public amenity, natural or cultural heritage.

This Landscape and Biodiversity Specification Report is to be read in accordance with the submitted Biodiversity Enhancement Plan (GEJ/WL/009) and the Woodland Planting Plan (GEJJ/WPP/010).

As detailed in the submitted Ecological report of Will Prestwood;

a) Six Woodcrete general purpose bat boxes, suitable for crevice-dwelling species will be installed into mature trees within the boundary hedgerows. They will be at least 3m from the ground.

b) Six Woodcrete cavity nesting boxes with 28mm or 32mm access holes. These boxes will be positioned within mature trees within boundary hedgerows.

c) Two hedgehog domes will be installed into the base of the hedgerows with their entrances facing into the centre of the hedgerow.

CLIMATE CHANGE

The Environment (Wales) Act 2016 sets a legal target of reducing greenhouse gas emissions in Wales by at least 80% in 2050 with interim targets set for 2020, 2030 and 2040. The proposal at Upper Bryn will assist in reducing issues of climate change through;

1) Soil testing on an annual basis to ensure the soil nutrients are correct in each field parcel upon farm eliminating the risk of leaching from soils.

2) Soil testing on an annual basis to ensure the correct nutrients within each parcel to allow a natural growth of grass and crops without the need for the use of inorganic fertilisers.

3) Use of organic fertilisers from the existing poultry, beef and sheep enterprises upon the land as required, reducing the reliance on vehicles bringing inorganic fertilisers to the farm, to then be applied to the land with tractor and trailer.

4) Production of food to be purchased for local consumption, the Welsh Egg. Selling locally at the end of the farm lane with an honesty box as the business did throughout the Covid pandemic.

5) Eggs will be collected in the existing lorries attending the farm to collect eggs therefore the increased proposals will not result in any additional vehicular movements.

6) Feed for the birds is supplied by a local feed company resulting in reduced vehicular movements to the site from long distance feed companies.

7) Reducing the carbon footprint through utilisation of re-useable egg trays.

8) Reducing the carbon footprint by using LED lights within the poultry unit.

2.0 TRANSLOCATION OF HEDGEROW

Successful translocation of hedgerows relies on a number of key activities. The main tasks for hedgerow translocation being;

- Timing of the work
- Identification of the donor hedgerows
- Sourcing of the correct plant and equipment
- Identification of the receptor location
- Preparation of the receptor site
- Preparation of the donor hedges
- Excavation and replanting of hedgerow in a single operation
- Cautious and systematic excavation of the donor hedge sections
- Replanting of the donor hedges
- Protection and maintenance of the replanted hedges.

2.1 Overview of Translocation of Hedgerow

Hedgerow translocation is the movement of a mature hedgerow to a new location. When moving a hedgerow, all works must take place in the dormant season (November to March) but optimum times for this are when there is still some residual heat in the soil to assist with

new root formation. The hedgerow will be surveyed by contractors prior to translocation to capture the current condition and vitality.

Works and preparation of the receptor site (i.e. the new hedgerow location) should not be undertaken before the movement of the hedgerow. This ensures that the roots do not become desiccated when having to be stored above ground for any length of time after being dug out, either due poor planning or exceptional site circumstances.

It is important for successful establishment that translocation of the hedgerow is performed quickly; preferably on the same day and that the hedgerow plants are placed in the receptor site in the same order as in the donor hedge.

Where above ground storage is unavoidable, damp hessian sacks should be applied to the root balls to limit the risk of desiccation and maintained as such. It is important to avoid frost damage to the moist roots during this period so extra protection controls may have to be implemented.

Preparation of the receptor site will include digging a new trench at the location which is to be the final destination of the hedgerow. This will be to a suitable width and depth to accommodate the translocated hedge and space for sufficient backfilling. Soil at the bottom of the trench must then be loosed and mixed with topsoil, slow-release fertiliser and water retaining gel.

2.2 SPECIFIC DETAILS

The works are to be undertaken in the dormant season and once completed the works will be fully maintained and monitored each year moving forward.

Prior to translocation of the area of hedgerow in question it will be essential to coppice and/or trim the hedgerow trees and shrubs. This is to be completed in the dormant season and just prior to the removal operation to reduce the stress on the plants.

The hedge plants should be reduced in height to a minimum of 750mm above the root collar. There are no significant tree stems within the hedge that would require specific handling.

Rough sections of old and dead ruderal vegetation will be removed prior to cutting as this will facilitate better visibility of the stump around any root collar. Any wild plants and the soil surface vegetation will be kept in place to translocate with the hedgerow to maintain ecological diversity and promote the re establishment of a mature hedgerow understory.

Numerous methods are suitable for the extraction of the hedgerow sections. The main method to be employed will involve the use of the largest appropriate excavator ditching bucket attached to a tracked/wheeled excavator. The machine must be of a suitable size to wholly remove the section complete with roots.

The exposure of the root ball will be undertaken by grading downwards (gently) to expose rather than break root ends to approximately 1m from the hedgerow stems. Hand cutting

with a sharp saw or chainsaw will be required when large roots are encountered. Cutting as opposed to breaking or snapping will leave clean ends and then will be much less susceptible to rot or allowing the ingress of pathogens.

To allow the remove of the root ball as a whole section, the bucket will aim to remove a section about 1m deep, 1.5 across the hedge line and in a 1m width. The sections should be lifted with the utmost care maintaining as much of the root ball as is possible.

The extracted sections will be moved to the receptor site and placed immediately into the prepared trench, which is to be their final destination.

When lifting, as much of the root ball will be retained as is possible. The sections will not be tipped out as this would damage and dislodge the soil structure around the root ball.

Sections will be placed in the receptor trench in the same order as they were in the original hedgerow. The correct height and line of each plant must be established prior to any backfilling. This will be guided by root collar heights and surface soil heights.

The trench will then be backfilled with topsoil, from the original hedge location. Soils will be firmed in to stabilise the plant, with care given not to over compact the ground, as this can inhibit gaseous diffusion in the root system. Once settled the hedge will be watered to full depth of topsoil ensuring that any air pockets trapped towards the bottom receptor trench are filled with soil particles. Any gaps will be filled up using local provenance hedgerow species.

Protective fencing will surround the translocated hedgerow.

2.3 POST TRANSLOCATION

All planting of the translocated hedgerows will be subject to an establishment and maintenance management plan at Upper Bryn. This is in additional to ongoing routine maintenance once the planting has matured beyond the initial establishment period.

All sections of newly translocated hedgerows will be protected with suitable robust fencing to ensure that there is no unauthorised access to the hedgerow planting areas. This fencing will be complaint with, or effective as, that in *BS5837:2012 Trees in relation to design, demolition and construction Recommendations.* Fencing shall not be directly adjacent of the receptor trench and shall be treated as permanent during the duration of the site work. Afterwards stock proof fencing shall be erected in protection of the hedgerows.

The translocated hedges will be monitored post planting for signs of poor establishment and, where needed, supplement with gapping up planting used local provenance hedgerow species.

3.0 NEW HEDGEROWS;

Percentage	Species	Size	Spacing
30%	Corylus avellane/Hazel	400-600mm	5 per linear metre
50%	Crataegus monogyna/Hawthorn	400-600mm	5 per linear metre
20%	Ilex aquifollium/Holly	400-600mm	5 per linear metre

3.1 PLANTING SPECIFICATION

Topsoil – All planting is to take place in the existing agricultural soils on site.

Planting and Plants – All planting and plants shall be healthy in appearance and comply with the requirements of all current/relevant British Standards including BS3926 and BS4428. All planting to be carried out within the recognised planting season of November to March. All plants to be British Grown Stock and fully hardened off. All native species to be of local origin.

Root Dip – Proprietary root dip to be applied to all bare rooted stock at the time of lifting at the nursery and prior to planting.

Watering – Thoroughly water all new plants immediately after planting.

3.2 PLANTING MANAGEMENT

1) Any plants affected by frost heave shall be replaced. Protective fencing is to be inspected and maintained on a regular basis over a number of visits to site over the first five years following planting. Any damage is to be repaired as necessary. Further standard maintenance shall include watering, pest control and disease control.
2) Any hedgerow plant losses to be replaced annually in Years 1 to 5 in accordance with the original Planting Schedule and Planting Specification.
3) Regular visits shall be made to the hedgerows to ensure the newly planted stock is in weed free condition.

Weed Control – Hand weeding will be undertaken to remove weeds surrounding the new planting. An approved herbicide will be used in Years 1 to 3 to ensure healthy plant growth and weed free areas.

Plant Protection – All planting is to be fenced out to exclude stock.

Hedgerow Planting – Hedging plants are to be planted in tranches wide enough to allow the plants full root spread. Plants to be set out in double staggered rows using a total of five plants per linear metre.

Shrub Protection –All newly planted stock to be fully protected at all times from grazing livestock.

Timetable – The planting and seeding shall be completed within 12 months of completion of the development approved.

3.0 HEDGEROW PROTECTION PLAN

a) The Root protection area for the surrounding trees and hedgerows will be established by the project site manager, based on the width of the established trees, and the height of the hedgerow. The Root protection area shall be designed to protect at least a functional minimum of tree root mass to ensure that the trees all survive the construction process.

b) It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

c) Within the tree protection fencing there shall be;

- no mechanical excavation;
- no excavation by any other means;
- no hand digging;
- no ground level changes;
- no storage of materials;
- no storage or handling of any chemicals.

d) No vehicular access within the root protection areas.

e) No development with 5metres of an existing, established hedgerow.

4.0 INDIVIDUAL TREES IN THE RANGE AREA and WOODLAND PLANTING

4.1 All trees to be planted at 2m centre spacing and to be staggered to prevent a straight line arrangement.

All ranging area tree planting to be done in the first planting season after completion of the development in line with submitted plans.

Species	Description	Height	Species Groupings
Quercus robur/Pendunculate Oak	Standard	250-300mm/8-10cm	3-5

4.2 All woodland tree planting to the south of the proposed development, to the east and to the north along the entrance to the development to be planted at 2m centre spacing and to be staggered to prevent a straight line arrangement.

All woodland planting to be done in the first planting season after completion of the development in line with submitted plans.

Percentage	Species	Form	Height	Species Groupings
15%	Prunus Avium/Wild Cherry	BR Feathered	125-150cm	3-5
35%	Quercus Petraea/Sessile Oak	BR Feathered	125-150cm	5-7
35%	Betula Pendula/Silver Birch	BR Transplant	40-60cm	5-7
15%	Sorbus Aucuparia/Rowan	BR Transplant	40-60cm	5-7

4.3 **PLANTING SPECIFICATION**

Topsoil – All planting is to take place in the existing agricultural soils on site.

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Root Dip – Proprietary root dip to be applied to all bare rooted stock at the time of lifting at the nursery and prior to planting.

Watering – Thoroughly water all new plants immediately after planting.

4.4 **PLANTING MANAGEMENT**

4) Any plants affected by frost heave shall be replaced. Protective fencing and stakes with ties and guards are to be inspected and maintained on a regular basis over a number of visits to site over the first five years following planting. Any damage is to be repaired as necessary. Further standard maintenance shall include watering, pest control and disease control.

5) Any tree losses to be replaced annually in Years 1 to 5 in accordance with the original Planting Schedule and Planting Specification.

6) Regular visits shall be made to the trees to ensure the newly planted stock is in weed free condition.

Weed Control – Hand weeding will be undertaken to remove weeds surrounding the new planting. An approved herbicide will be used in Years 1 to 3 to ensure healthy tree growth and weed free areas.

Plant Protection – All trees will be protected with a solid tubular guard with ratcher ties and secured to a wooden stake. Guards will be 750mm high. All planting is to be fenced out to exclude stock.

Ground Preparation and Planting – Pre Planting soil preparation will ensure the health and success of the planting scheme. A minimum rooting depth of 600mm shall be provided to all new tree planting areas including a minimum depth of 400mm top soil.

a) Loosen soil to a depth equivalent to height of the footfall and over a wide area to eliminate compaction and improve drainage.

b) Remove plants from containers or fabric wrapping.

c) Dig a planting hole that is no deeper than the roots, ideally at least 3 times the diameter of the root system.

d) If the sides of the planting hole are compacted, break the soil up with a fork before planting.

e) Soak bare rooted trees or shrubs for about 30 minutes prior to planting and give containerised plants a good watering before removing the pots.

f) Plant tree or shrub in planting hole and position it so that the first flare of roots are level with the soil surface when the planting is completed.

g) Insert a stake to support the tree.

h) Refill planting hole carefully, ensuring soil is placed between and around all the roots to eliminate air pockets.

i) Firm the soil gently, avoiding compacting the soil into a hard mass. Water the plant in.

j) Protect with a solid tubular guard.

Tree Stakes and Ties – all stakes are to be treated, round, smooth and not less than 100m in diameter. Use proprietary root ties which are to be applied in accordance with the recommendations of the manufacturer.

Tree and Shrub Protection – All planting to be fenced with chicken proof post and wire fencing until established. All newly planted stock to be fully protected from poultry and rabbit damage through the use of proprietary tree/shrub guards applied in accordance with the recommendations of the manufacturer. All newly planted stock to be fully protected at all times from grazing livestock.

Timetable – The planting and seeding shall be completed within 12 months of completion of the development approved.

5.0 MAINTENANCE AND MANAGEMENT SCHEDULE

A	Plant Material	To ensure delivery of the landscape plan; Infill Planting to replace any sections of dead or otherwise failed sections of translocated hedge. Identification of causes of poor growth/plant failure and implementation of appropriate remedial measures. Removal of dead/damaged/diseased plants. Replacement planting to rectify damage from storm, fire, vandalism or accident.
B	Guards, Stakes and ties, protective fencing	Infill planting Remedial works as necessary Removal of guards, stakes and ties to infill planting when appropriate.
C	Weed Control	Infill planting, removal of all weeks in mulch area, top up mulch/monitor mulch mats.
D	Watering	Watering with quantity appropriate to ground conditions.
E	Establishment Management	To ensure delivery of the landscape plan; Trimming/pruning as appropriate to the species, location, season, and stage of growth, to promote effective growth to the design object height and to encourage growth of lower branches to improve hedge density, and to prevent interface of encroaching growth to adjacent land use, sight lines, visibility, lighting etc..

Establishment maintenance Years 1 to 5

	Monitoring visits Assess status and operation requirements as follows: -	Annual/ quarterly timing and frequency of visits Year after implementation	1				2				3				4				5			
		Quarter Q[a]	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A	Plant material: Health; damage; disease; pests; stability.		1	2	2	1	1	1	1	1		1				1				1		
B	Guards; stakes and ties; protective fencing.		1	1	1	1	1	1	1	1		1				1				1		
C	Weed control			1	1			1	1			1				1						
D	Watering			3	3			3	3													
E	Establishment management											1				1				1		

a Q1: Jan - Mar Q2: Apr - Jun Q3: Jul - Sep Q4: Oct - Dec

Establishment Year 6 onwards;

1.2 Long term maintenance and management: Year 6 onwards

	Monitoring visits Biennially from Year 6 onwards Assess status and operation requirements as follows: -	Annual timing and frequency of visits Quarter Q [a]	1	2	3	4
A	Plant material: Health; damage; disease; pests.				1	
B	Long term management objectives					1

a Q1: Jan – Mar Q2: Apr – Jun
Q3: Jul- Sep Q4: Oct - Dec

6.0 CRITICAL EXCLUSION ZONES

No construction works shall take place within 1 metre of the hedgerows identified on the landscaping plan.