



FULL PLANNING APPLICATION HARD & SOFT LANDSCAPING GUIDE

for

**PEN Y DON
A NEW SPECIALIST & EXTRA CARE FACILITY
AT PENDINE PARK, SUMMERHILL
WREXHAM, LL11 4YE**

On behalf of

**Mr Mario Kreft MBE
Pendine Park Care Organisation (Summerhill) Ltd**

Job No: 4135-1
Date: 21st July 2023
Revision: B



1.0 Landscape

2.0 Planting Guide

3.0 External Surfaces

4.0 External Lighting

To be read in conjunction with:-

- McCormick Architecture Ltd drawing 4135/1/A(200)07C Proposed Landscaping Plan
- Kingdom Ecology Ecological Mitigation and Management Plan dated 23rd June 2023
- Tree Solutions Arboricultural Method Statement dated December 2020
- Tree Solutions AIA drawing rev B Nov 2020 and TPP drawing rev A Nov 2020

1.0 Landscape

The principles of the landscape proposals are to:

- enhance the landscape character and longevity of the proposed site
- provide ecological habitat and foraging
- define the site boundaries and approaches

2.0 Planting Guide

- 2.0.1 The selection, preparation for planting, design of tree pits and watering requirements, planting and subsequent post-planting maintenance of new trees is to be undertaken in accordance with the requirements of BS8545:2014
- 2.0.2 Trees to be sourced from named UK nurseries, and transported to site in accordance with Horticultural Trade Association's current guidelines and also that of BS8545:2014
- 2.0.3 Root barriers to be confirmed on site where required in relation to structures, drainage, ecology or services.
- 2.0.4 The 'Tree Planting Guide' by the Tree Council is also good reference for practical applications of different tree stock and sizes in different environments.

2.1 Trees

2.1.1 Ulmus 'New Horizons' Elm



2.1.2 Sorbus Acuparia 'Rowan – Mountain Ash'



2.1.3 Betula Albosinensis 'fascination' Silver Birch



2.1.4 Prunus Avium 'Wild Cherry'



2.1.5 Malus – Crab Apple ‘Profusion’



2.1.6 Betula Pendula ‘Silver Birch’



2.1.7 Ilex Aquifolium 'English Holly'



2.1.8 Salix Babylonica 'Willow'



2.1.9 *Castanea sativa* 'Sweet Chestnut'



2.1.10 *Quercus Robur* "English Oak"



2.1.11 Tilia Vulgaris “Common Lime”



2.2 Grasses

2.2.1 Tussock/ Tall Herb

PRO FLORA 14

Tall herb and tussock mix

By using species with varying heights and structures we can provide a habitat for a wider range of insects, small mammals, amphibians and reptiles. These taller growing species can also help visually to blend more traditional parkland/meadow mixtures with woodland and natural scrub. Tall Herb grassland provides a vital pollen and nectar source late into the year to sustain invertebrates which in turn provide a food source for birds as do the seeds themselves. Maintenance differs from that of conventional species rich wild flower grassland. Ideally divide the area into three parts and mow one part per year in rotation so as not to lose the essential habitat that has been created. If possible leave the arisings in large piles on site; this very coarse hay plays an important part in habitat creation, providing egg laying and hibernation sites for reptiles.

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Sowing rate: 5g/m²

%	COMMON NAME	SPECIES	HEIGHT (CM)	COLOUR	PERIOD
-	<u>20% WILD FLOWERS</u>				
8	BLACK KNAPWEED	CENTAUREA NIGRA	30-80	PURPLE	JUNE SEPT
9	COMMON AGRIMONY	AGRIMONY EUPATORIA	30-60	YELLOW	JULY SEPT
3	COW PARSLEY	ANTHRISCUS SYLVESTRIS	40-150	WHITE	APRIL JUNE
4	GREATER KNAPWEED	CENTAUREA SCABIOSA	50-90	PURPLE	JULY AUG
10	HEDGE BEDSTRAW	GALIUM MOLLUGO	30-160	WHITE	JUNE SEPT
5	LESSER BURDOCK	ARCTIUM MINUS	50-150	PURPLE	JULY SEPT
0.5	MEADOW CRANESBILL	GERANIUM PRATENSE	30-60	BLUE	JUNE SEPT
3	MUSK MALLOW	MALVA MOSCHATA	20-80	PINK	MAY AUG
6	OX-EYE DAISY	LEUCANTHEMUM VULGARE	20-100	WHITE	MAY OCT
5	RIBWORT PLANTAIN	PLANTAGO LANCEOLATA	5-50	BROWN	MAY SEPT
12	RED CAMPION	SILENE DIOICA	30-100	RED	MAY SEPT
8	SALAD BURNET	SANGUISORBA MINOR	30-90	YELLOW	MAY AUG
10	SELF HEAL	PRUNELLA VULGARIS	5-20	PURPLE	JUNE SEPT
6.5	TEASEL	DIPSACUS FULLONUM	50-200	PALE PURPLE	JUL SEPT
5	WILD CARROT	DAUCUS CAROTA	30-100	WHITE	JUNE SEPT
5	YARROW	ACHILLEA MILLIFOLIUM	20-45	WHITE	JUNE OCT
100%					
-	<u>80% GRASSES</u>				

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12	COCKSFOOT	DACTYLIS GLOMERATA	15-140	-	-
25	CRESTED DOGS TAIL	CYNOSURUS CRISTATUS	5-75	-	-
10	MEADOW FESCUE	FESTUCA PRATENSIS	30-120	-	-
3	MEADOW FOXTAIL	ALOPECURUS PRATENSIS	30-120	-	-
10	SHEEPS FESCUE	FESTUCA OVINA	5-60	-	-
14	RED FESCUE	FESTUCA RUBRA	15-90	-	-
8	TALL FESCUE	FESTUCA ARUNDINACEA	45-200	-	-
5	TALL OAT GRASS	ARRHENATHERUM ELATIUS	50-150	-	-
10	TIMOTHY	PHLEUM PRATENSE	40-150	-	-
3	YORKSHIRE FOG	HOLCUS LANATUS	20-100	-	-
100%					

2.2.2 Hay Meadow

A traditional hay meadow conservation seed mix containing a high diversity of 26 UK native wildflowers and grasses. It is a seed mix suited for low fertility, moist, circumneutral and free draining moist soils that dry out in the summer. It is represented by the NVC community MG5 and is a habitat of principle importance 'Lowland Meadows'.

This type of meadow is managed traditionally by leaving the sward to flower and set seed from spring until early summer when a hay cut is taken to remove fertility and it is grazed thereafter. Light to moderate grazing can also be employed instead of a hay cut. Structural diversity such as tussocky grassland and taller herbs should be maintained on rotation by fencing off certain areas, which will benefit flowering species and the wildlife using these habitats. Hay meadow habitats are associated with high plant diversity, which provides a flower rich resource for notable pollinators such as common and shrill carder bee in southern localities.

Suitable NVC Communities: MG5

Sowing Rate: 5g/m²

Contains: Wildflowers 20% (19 species) Grasses 80% (7 species)



The Mix contains the following species:

Wildflowers:

4% *Achillea millefolium* – (Yarrow)
 10% *Centaurea nigra* – (Black knapweed)
 9% *Galium verum* – (Lady's bedstraw)
 3% *Hypochaeris radicata* – (Common cat's-ear)
 4% *Lathyrus pratensis* – (Meadow vetchling)
 2% *Leontodon autumnalis* – (Autumn hawkbit)
 8% *Leucanthemum vulgare* – (Ox-eye daisy)
 5% *Lotus corniculatus* – (Common bird's-foot trefoil)
 3% *Pimpinella saxifrage* – (Burnet saxifrage)
 10% *Plantago lanceolata* – (Ribwort plantain)
 1% *Primula veris* – (Cowslip)
 11% *Prunella vulgaris* – (Selfheal)
 9% *Ranunculus acris* – (Meadow buttercup)
 5% *Rhinanthus minor* – (Yellow rattle)
 6% *Rumex acetosa* – (Common sorrel)
 3% *Sanguisorba officianalis* – (Great burnet)
 3% *Stachys officianalis* – (Betony)
 2% *Succisa pratensis* – (Devil's bit-scabious)
 2% *Vicia cracca* – (Tufted vetch)

Grasses:

3.0% *Agrostis castellana* – (Common bent)
 2.5% *Anthoxanthum odoratum* – (Sweet vernal grass)
 1.5% *Briza media* – (Quaking grass)
 20.0% *Cynosurus cristatus* – (Crested dog's-tail)
 25.0% *Festuca rubra* ssp *litoralis* – (Slender Creeping Red Fescue)
 45.0% *Festuca rubra* ssp *rubra* – (Red fescue)
 3.0% *Trisetum flavescens* – (Yellow oat grass)

2.2.3 Amenity Grassland – Emorsgate EM2 Standard General Purpose Meadow Mixture

Suggested Sowing Rates

40kg/ha 16kg/acre 4g/m²

Description

This meadow mixture contains species that are characteristic of traditional meadows across a wide range of soil types.

Ground Preparation

Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

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To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.

Sowing

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

First Year Management

Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

Management Once Established

In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol trimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.

Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

Composition

EM2 is a complete mix composed of 15% native wild flowers and 85% slow growing grasses (by weight). The flower and grass components are also available to order separately as EM2F for the flower component and EG1 for the grass component.

****From September 2023 this mixture's composition will change and will contain Yellow Rattle****

Wild flowers – 15%

0.90% Achillea millefolium – Yarrow

1.20% Centaurea nigra – Common Knapweed

0.075% Cruciata laevipes – Crosswort



0.15% *Daucus carota* – Wild Carrot

0.30% *Knautia arvensis* – Field Scabious

0.75% *Leucanthemum vulgare* – Oxeye Daisy

2.10% *Malva moschata* – Musk Mallow

3.00% *Plantago lanceolata* – Ribwort Plantain

2.25% *Poterium sanguisorba* ssp *sanguisorba* – Salad Burnet

0.15% *Primula veris* – Cowslip

0.60% *Ranunculus acris* – Meadow Buttercup

2.25% *Silene dioica* – Red Campion

0.075% *Silene vulgaris* – Bladder Campion

1.20% *Galium verum* – Lady's Bedstraw

Grasses – 85%

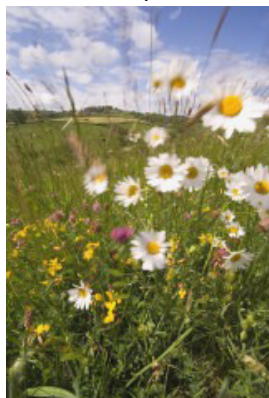
8.50% *Agrostis capillaris* – Common Bent (w)

29.75% *Cynosurus cristatus* – Crested Dogstail

25.50% *Festuca rubra* – Red Fescue

4.25% *Phleum bertolonii* – Smaller Cat's-tail (w)

17.00% *Poa pratensis* – Smooth-stalked Meadow-grass



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3.0 External Surfaces

3.1 Road Surface – Permeable Tarmac with SUDS reservoirs below – see Datrys proposals

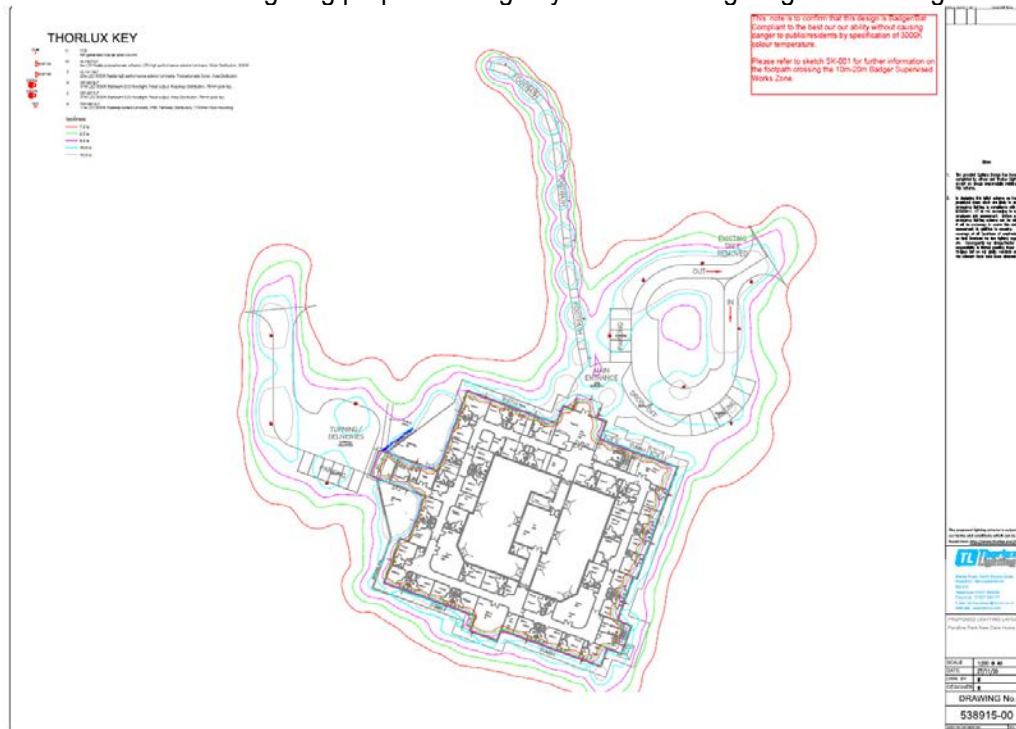
3.2 Parking Surfaces – Permeable Tarmac with SUDS reservoirs below – see Datrys proposals

3.3 Footpaths & Patios – 600X600mm Natural Finish Concrete Paving Slabs



4 External Lighting

4.1 See detailed lighting proposal design by TL Thorlux Lighting and drawings.





5 Maintenance

5.1 Principles & Scope

The scope of the soft landscaping works comprises of topsoiling, trees, shrubs, ground cover planting and rough mown grassland.

Objectives

The landscaping is designed to:

- Create a pleasant green environment
- Maintain biodiversity
- Define public & private areas

Boundaries

See landscaping plan for all boundary types & locations.

Watering

Any water required for watering purposes will be imported by bouser as required.

Short term Management

Trees will be planted at their mature spacing. Any necessary tree surgery, such as crown lifting or dead wood removal will be carried out. Stakes/ ties will be adjusted when necessary and stakes would be removed when the tree is firmly rooted in the ground.

Shrubs are planted at close centres in order to achieve coverage of the ground in 1-2 years after planting. Any plants that die leaving obvious gaps within 5 years will be replaced.

The ground around the plants is to be bark mulched to conserve moisture and reduce weed growth. The mulch would be retained until there is full cover of the ground. Weed growth is to be removed to avoid competition with the planted shrubs.

Long term Management

Trees will be planted at their mature spacing. Any necessary tree surgery, such as crown lifting or dead wood removal will be carried out. Stakes/ ties will be adjusted when necessary and stakes will be removed when the tree is firmly rooted in the ground.

Shrubs will be pruned to prevent one species encroaching on another or onto paths and roads and to keep the correct shape.

Weed growth will be removed to avoid competition with the planted shrubs.

Management Regimes

All planting/ vegetation is to be maintained by:

- Fertilising for continued healthy growth
- Pruning to maintain correct shape of plant & prevent any unwanted encroachment.
- Weed control
- Watering

Maintenance

Standard of work - Planted areas kept neat and clean in appearance at all times, weed & litter free, with all planting in a healthy state.

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Protection of property – Prevent damage to & protect as necessary paved surfaces, buildings, fittings and utilities.

Protection of people – Ensure that chemical application is undertaken in accordance with the manufacturer's directions & with the approved code of practice for the Safe Use of Pesticides for Non-Agricultural Purposes where they apply. The operative shall ensure at all times that the public, residents & staff are not subject to any hazard from the use of chemicals & that all equipment, containers & materials are kept in a secure place when on site & not in use & that all empty containers etc are removed from site at the end of each day. Keep a record of all chemicals used & their dosage.

Cleanliness – Remove from site all rubbish, trimmings etc leaving the site in a clean & tidy condition including all area of hard landscaping being free from soil, mud, leaves, trimmings etc.

Operating Conditions – Works shall be organised to take account of any specific ground & weather conditions. Chemical applications shall only be undertaken in suitable weather conditions as described by manufacturers.

Watering – Ensure that all planting is sufficiently watered to maintain healthy growth.

Disease – Remove all dead/ diseased wood, prunings from site & dispose of safely.

Replacements – Any plants found to be dead, dying, vandalised or not growing in a vigorous condition are to be replaced on a yearly basis. Replacements are to be planted in November / December for deciduous species & April/ May for evergreens. All plants shall be planted at the size indicated on the planting schedule.

Site Visits – Visit the site sufficiently enough to carry out the maintenance duties as specified in this document.

Mulching – Mulched areas are to be topped up once per year using the same material as was originally specified to maintain 75mm depth until such time as canopy closure occurs.

Fertilising – In March/ April an application of slow release fertiliser is to be applied to all shrub beds at 100gr/sqm cover.

Weed control – Control of weeds shall be undertaken as necessary to keep the site clean & tidy & weed free. Weeding may be carried out by hand, machine or herbicide or by combination. Where herbicide is to be used ensure the proposed herbicide is appropriate for purpose & location & is used in accordance with manufacturers recommendations & in strict accordance with the latest Control of Substances Hazardous to Health (COSHH) regulations. Specific areas where weed control will be necessary include weeds/ moss in paving areas, weeds in trees, shrubs & ground cover. All weeds removed should be taken away from the site on completion.

Litter – All litter shall be removed from planted areas & removed from the site.

New Trees – Unless specified otherwise, pruning shall be limited to the minimum necessary to maintain good form & vigour and to remove dead, diseased or dying branches & work shall conform to BS 3998. Tree support/ guys are to be regularly inspected & adjusted or replaced if necessary. When staked trees are firm in ground, the stakes/ ties shall be removed.

Tree sourcing, transportation, preparation, planting and post-planting care to be in accordance with the requirements of BS8545:2014 and the Horticultural Trade Association's current guidelines

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Shrubs & ground cover - Pruning shall be carried out as required to maintain good form & vigour, to encourage bushiness and to remove dead, diseased or dying branches. Some shrubs need to be cut back hard to encourage growth from the base. Cyclical pruning shall be carried out to maintain an attractive shrub bed where necessary. Shrubs shall be cut back where they encroach on pedestrian & vehicular routes. All pruning shall be in accordance with good horticultural practice and in the appropriate month/ season to maintain flowering/ fruiting.

Rough mown grass – Mowing shall be carried out to a height of 12-50mm and shall be carried out every two weeks between March and October. Mowing between November and February to be carried out only when necessary.

