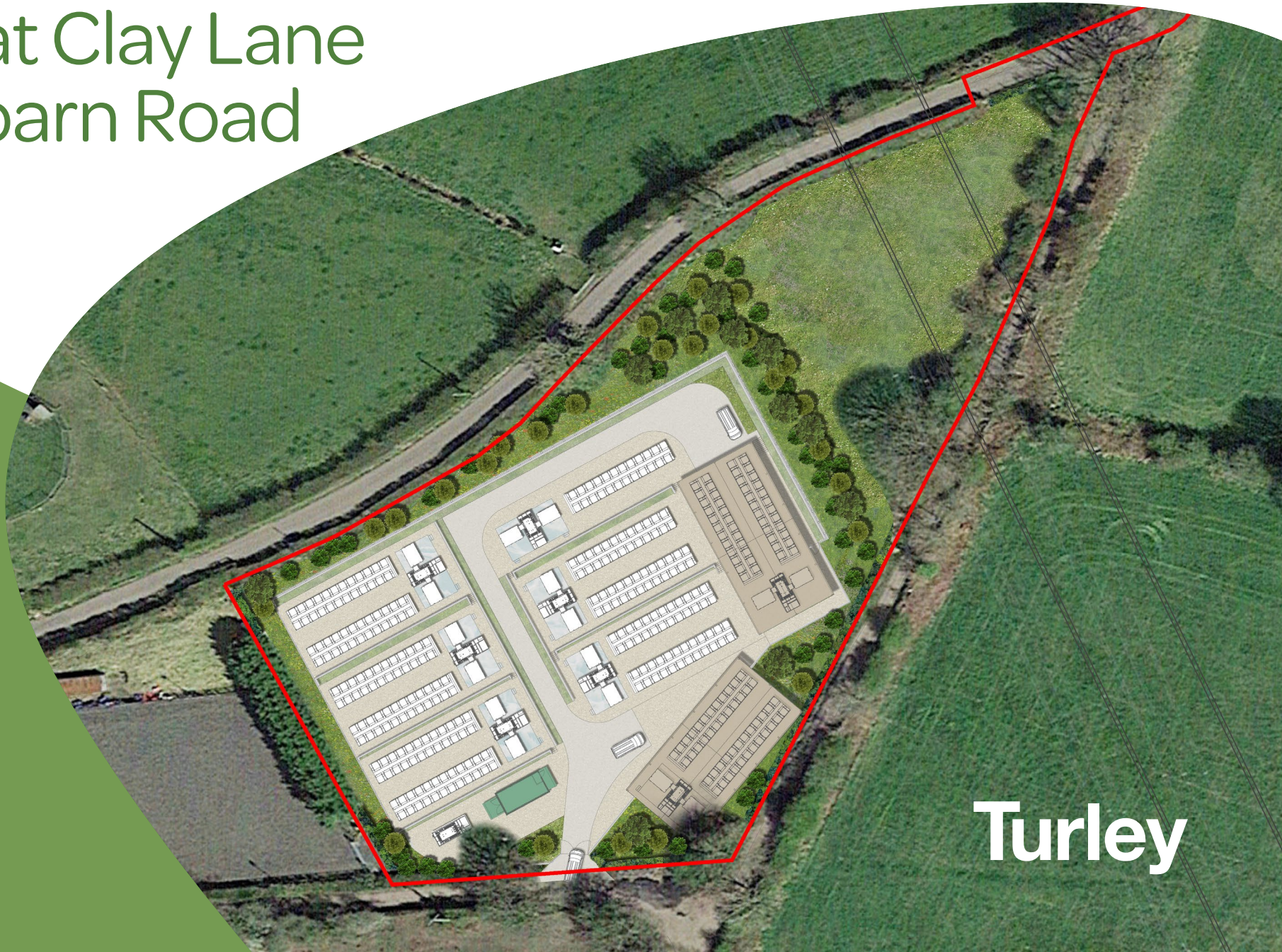


LANDSCAPE & PLANTING STRATEGY

Land at Clay Lane & Furbarn Road

Rochdale

June 2023



Turley

Landscape & Planting Strategy

Turley Design were commissioned by Shaw Energi to provide a Landscape and Planting Strategy for Land at Clay Lane, Rochdale. This Landscape and Planting Strategy is informed by a Landscape and Visual Assessment (LVA) undertaken by Turley and Ecology Appraisal undertaken by ERAP. This Landscape and Planting Strategy also reflects the guidance set out in the Greater Manchester Landscape Character and Sensitivity Assessment.

The purpose of this strategy is to ensure that the proposed development is landscape led, appropriate to the local landscape character context according to the Greater Manchester Landscape Character and Sensitivity Assessment, and conserves and where possible enhances key landscape characteristics within the site, while complementing the surrounding context. Most importantly, this Landscape and Planting Strategy optimises opportunities for landscape enhancement. The following objectives and plant specification collectively form a cohesive and resilient Landscape and Planting Strategy for the Site.

Landscape Objectives

- Existing trees, hedgerows and scrub along the field boundaries to be retained to maintain existing levels of visual containment. Root protection areas to be observed.
- Where there has been a fragmentation of the existing hedgerow structure, reinstatement of field boundaries would define the extents of the Site, increase existing levels of visual containment and provide enhanced green infrastructure connections.
- Rural lanes are characteristic of the local landscape. Individual and informal tree planting to line the hedgerows to Lower Jowkin Lane, Furbarn Road and Rake Lane to

enhance the rural lane characteristic. This would also limit views into the Site from the adjacent Public Rights of Way and Bridleway.

- Development to be set outside of overhead powerline easements. Tree planting to also observe this easement.
- A native woodland block would be planted between the battery/inverter units and the overhead powerline easement to provide further visual screening and to help assimilate the proposals into the wider landscape pattern.
- Retaining walls to utilise the Flex MSE Vegetated Wall System (or similar product) to establish green vertical faces where there would typically be hard engineered solutions. To be planted with grasses, ferns and small shrubs.
- Battery storage and inverter units to be arranged in a linear formation to work with the topography of the site, ensuring the height of the units does not sit above the northern hedgerow, and to retain visual permeability through the site. Where possible, all equipment will be designed using recessive colours to reduce visual prominence.
- Certain battery storage and inverter units will be housed within two small timber barn structures. These will be located at the lower parts of the Site to ensure they are not visually prominent in the wider landscape setting. Elevations to be 'hit and miss' timber with metal sheet roofing to reflect barn structure and material in the area.
- The existing and proposed green infrastructure would screen the proposals in long-range views from the surroundings. However, in the short-range views from the east and south, the barn structures would terminate views with a feature that is common in this agricultural

landscape. The barn structures would also screen any of the exposed battery storage and inverter units to the north (beyond the buildings).

- The battery storage units will be a light grey (RAL 7035), the Inverter Units will be in a mid grey (RAL 9006) and the and Sub Station and associated equipment will be green with green fencing to reduce its prominence in the wider landscape.
- Access into the site will be via the existing access gate. Parking for maintenance vehicles will be provided on site. The access road will be MOT Type 3 Sub Base. Hardcore stone surfacing will be applied to all other hard surfaced areas.

Planting Objectives

- Mix of both evergreen and deciduous species to provide year-round visual interest and screening benefits. Aim to maintain a degree of visual permeability through the site, avoidance of full enclosure.
- Utilise a combination of native trees and shrubs species alongside grassland meadow mixes.
- Where appropriate, planting proposals should use native species appropriate to the local area sourced from stock of local provenance.
- All planting will be subject to further detail design.

Biodiversity Objectives

- High proportion of native species to contribute to and improve the biodiversity value of the site through the selection of wildlife friendly species which provide opportunities for foraging, nesting and shelter.
- Retained and enhanced opportunities for movement of wildlife within and across the Site through retention and new lengths of hedgerows, new tussock grassland habitat and new native woodland habitat.
- Provision of bird and bat boxes on retained trees for roosting and nesting opportunities.
- Provision of log, brash and stone piles to be placed in both sunny and shady locations to provide refuge and hibernation habitats for invertebrates, amphibians and reptiles.
- Provision of a net biodiversity gain.
- The battery storage and inverter units to be sat on raised platforms. The ground under the platform to be hardcore stone surfacing, a permeable material which would assist with surface water drainage and maintain run off rates.
- The invasive plant species Himalayan balsam was recorded on site. Measures for biocontrol during works to prevent the spread of this species and the control and eradication of this species are proposed.



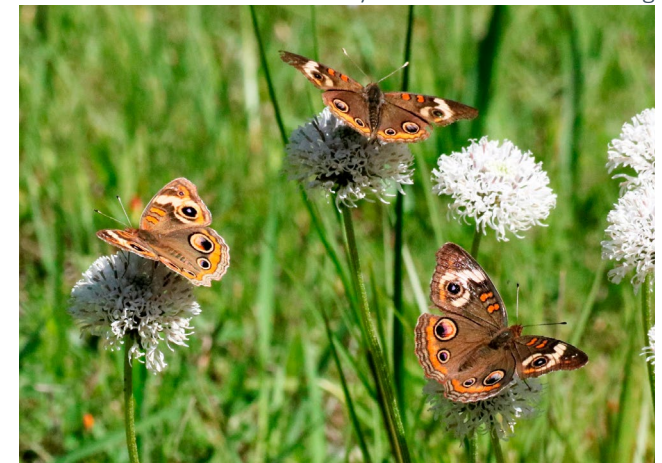
Hedgerow retention, enhancement and reinstatement



Boundaries to PRow and Bridleway to have additional screening



New areas of native woodland planting



Native and species-rich planting to attract wildlife



Fig. 1: Illustrative Landscape Masterplan



School Lane

Rake Lane

Furbarn Road

Lower Jowkin Lane

Application boundary

1. 2.5m high galvanised weldmesh gates to site entrance
2. Maintenance vehicle parking on site
3. 2no. new 'barn structures' to house battery storage units and inverters
4. Battery storage units in light-grey
5. Inverter units in mid-grey
6. Sub-station and associated equipment in green
7. Battery and inverter units to be arranged in a linear formation to work with the topography of the site
8. 2.5m high galvanised weldmesh security perimeter fencing
9. Vegetated retaining walls to use Flex MSE system (or similar product, and include galvanised tubular handrails/ barriers
10. MOT Type 3 Sub Base in a buff/light grey limestone colour to access road
11. Loose limestone / hardcore stone chippings in light grey to all other surfaces
12. Galvanised metal grate decking, steps, handrails and stillage
13. Overhead powerlines with 20m easement either side of centreline. Development and tree planting to avoid this easement.
14. Existing trees to be retained
15. Existing hedgerows to be retained
16. Proposed native, species-rich hedgerow to the site perimeter to enclose the site
17. Individual and informal tree planting to line the hedgerows to Lower Jowkin Lane, Furbarn Road and Rake Lane

18. Native woodland to provide further visual screening and to help assimilate the proposals into the wider landscape pattern
19. Creation of a new species-rich habitat under the powerline and within the easement. A tussock grassland mix with low growing native mixed scrub planting.
20. Temporary vehicle access for construction vehicles - to be converted to landscape post construction.

Individual Trees

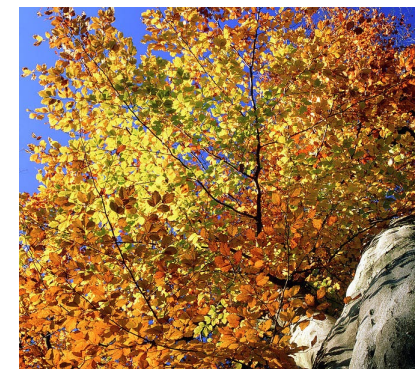
Individual tree planting to Lower Jowkin Lane, Furbarn Road and Rake Lane to provide light screening benefits and enhance the rural lane characteristic. Species have been chosen to be consistent with existing species on Site and locally.

Indicative native species to include:

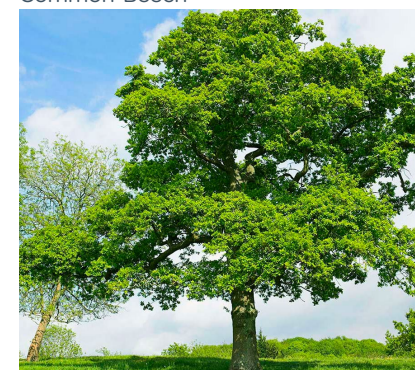
- Common Beech *Fagus sylvatica*
- English Oak *Quercus robur*
- Field Maple *Acer campestre*

Planting Specification

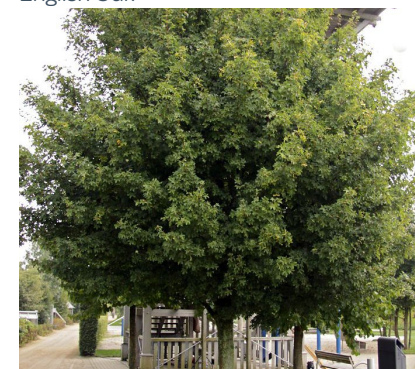
- Trees to be planted individually and distributed informally to the perimeter of the site, avoiding the overhead powerline and the associated easement.
- To be heavy standard 12-14cm girth and 350 - 400cm in height.



Common Beech



English Oak



Field Maple

Native Woodland and Understorey

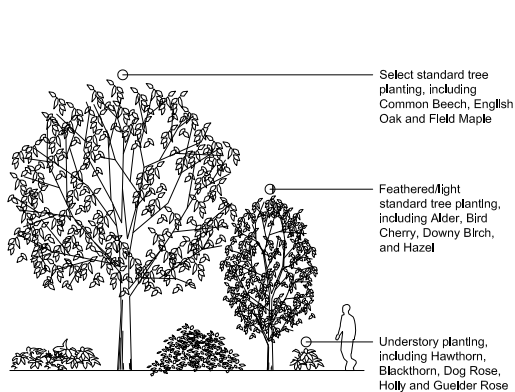
Native Woodland block to the eastern extent of the Site, to visually buffer the proposed development from views in the surrounding area and to help assimilate the proposals into the wider landscape pattern.

Trees - Indicative native, species-rich mix to include:

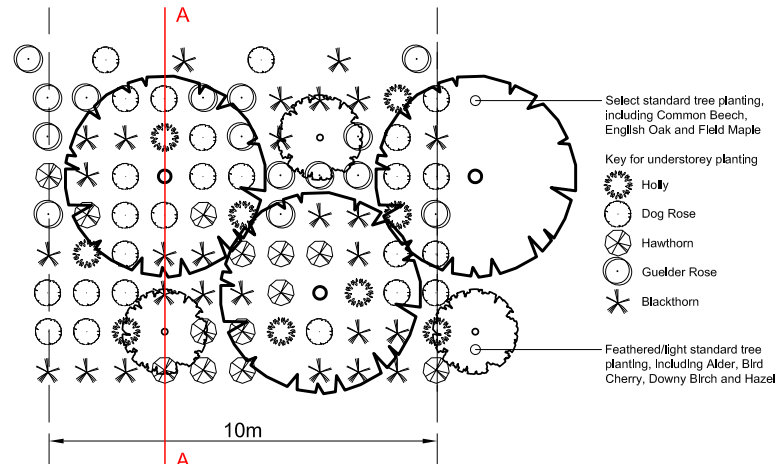
- | | | |
|----------------|-------------------------|-------|
| • Alder | <i>Alnus glutinosa</i> | (10%) |
| • Bird Cherry | <i>Prunus padus</i> | (5%) |
| • Common Beech | <i>Fagus sylvatica</i> | (5%) |
| • Downy Birch | <i>Betula pubescens</i> | (10%) |
| • English Oak | <i>Quercus robur</i> | (5%) |
| • Field Maple | <i>Acer campestre</i> | (10%) |
| • Hazel | <i>Corylus avellana</i> | (15%) |

Shrubs - Indicative native, species-rich mix to include:

- | | | |
|--------------|-----------------------|------|
| • Blackthorn | <i>Prunus spinosa</i> | (5%) |
| • Dog-rose | <i>Rosa canina</i> | (5%) |



Section A-A through planting buffer with approximate growth after 5-10 years



- | | | |
|----------------|---------------------------|-------|
| • Guelder Rose | <i>Viburnum opulus</i> | (5%) |
| • Hawthorn | <i>Crataegus monogyna</i> | (20%) |
| • Holly | <i>Ilex aquifolium</i> | (5%) |

Planting Specification

- Alder, Bird Cherry, Downy Birch and Hazel to be feathered or light standard 6-8cm girth and 200 - 250cm in height.
- Common Beech, English Oak and Field Maple to be select standard 10-12cm girth and 300 - 350cm in height.
- Trees to be planted individually and distributed evenly throughout.
- Shrubs to be planted in groups of 3, 5 or 7 no. of each species. Density: 4/m² except Holly which is to be planted at 1/m².
- Refer to planting matrix and section for visualisation of planting.
- Trees suitable for soil types: Slowly permeable wet very acid upland soils with peaty surface.



Maturing woodland with understorey



Field Maple



Downy Birch

Habitat Area

Opportunity for an ecologically valuable Habitat Area under the overhead powerline and within the easement. A mix of Tussock Grassland and Native Scrub.

Tussock Grassland

A tussocky grassland with tall flowers and grasses, to form a good habitat for insects, small mammals, birds, amphibians and reptiles, providing nesting sites during spring, food during summer and autumn, and shelter during winter. Once established, the tussocky grassland would require little to no maintenance.

- To be sown with a tussock grassland mixture of 80% grasses and 20% wildflowers (Emorsgate Mix EM10 Tussock Mixture or similar, sown at 40kg/ha)

Native Scrub

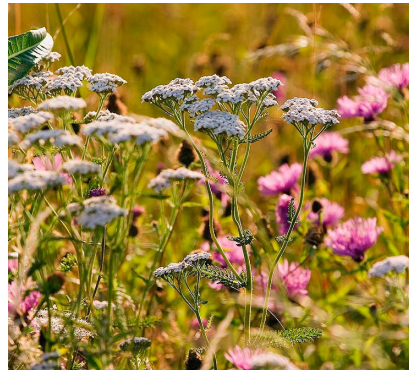
Thickets of low maintenance, native shrubs set within the Tussock Grassland. Species have been chosen for their wildlife supporting properties, soil suitability and low ultimate heights for underneath the powerline. Allow for unplanted areas for natural regeneration. Ideally use plants of local provenance from locally-collected seeds or bare-rooted whips.

Indicative native, species-rich mix to include:

- | | |
|------------------|--------------------------|
| • Dog-rose | <i>Rosa canina</i> |
| • Field Rose | <i>Rosa arvensis</i> |
| • Goat Willow | <i>Salix caprea</i> |
| • Guelder Rose | <i>Viburnum opulus</i> |
| • Wayfaring Tree | <i>Viburnum lantana</i> |
| • Wild Privet | <i>Ligustrum vulgare</i> |

Planting Specification

- To be planted in informal, mixed-species groups of approximately 5-9 plants at 1.5m centres.
- To be maintained to 2.5-3m in height.



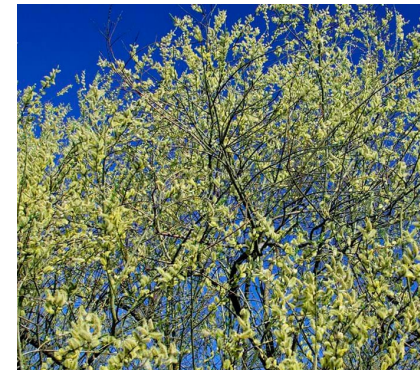
Tussock Grassland Mixture



Mixed native scrub



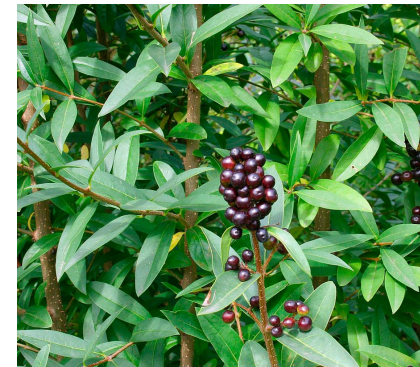
Tussock Grassland Mixture



Goat Willow



Dog-Rose



Wild Privet

Hedgerows

New native and species-rich hedgerows to reinstate the field boundaries of the Site as well as enhancement to the existing hedgerows. Hedgerows are a strong characteristic within the wider landscape. Hedgerows to the perimeter of the Site would provide wildlife connections between various existing on and off-site habitats as well as proposed on-site habitats.

Indicative native, species-rich hedgerow mix (and their percentage mix) to include:

- | | | |
|----------------|---------------------------|-------|
| • Blackthorn | <i>Prunus spinosa</i> | (10%) |
| • Common Beech | <i>Fagus sylvatica</i> | (10%) |
| • Dog-rose | <i>Rosa canina</i> | (5%) |
| • Field Maple | <i>Acer campestre</i> | (10%) |
| • Hawthorn | <i>Crataegus monogyna</i> | (55%) |
| • Holly | <i>Ilex aquifolium</i> | (10%) |

Planting Specification

- Planted in a double staggered row, 450mm between rows, at 5no. plants per linear metre
- Maintain rough grassland margins along hedgerow bases



Rough grass margins to hedgerow base



Species-rich hedgerows

Meadow Grassland

Opportunity to create a meadow grassland habitat outside of the BESS compound for biodiversity enhancements. Utilise a species-rich grassland composed of wildflowers and fine grasses which can support a wide range of invertebrates, small mammals, reptiles and birds.

- To be sown with a meadow mixture of 80% grasses and 20% wildflowers (Emorsgate Mix EM3 Special General Purpose Meadow Mixture or similar)



EM3 Special General Purpose Meadow Mix



Common Kapweed



Oxeye Daisy



Creasted Dogtail

Retaining Walls

Retaining walls would utilise the Flex MSE Vegetated Wall System (or similar product) to establish green vertical faces where there would typically be hard engineered solutions. Flex MSE bags and interlocking plates are used to build naturally resilient geomodular structures which are strong and easy to install.

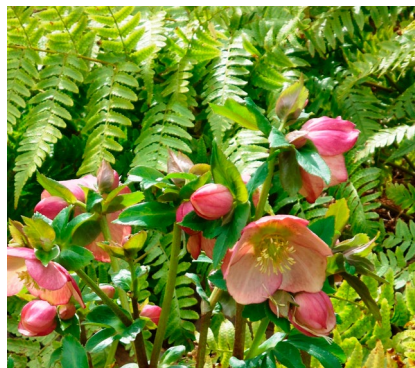
Flex MSE bags are filled with sand and organics, are an ideal planter block for many types of vegetation, are water and root permeable and are flexible enough to create almost any contour or angle.

The retaining walls are to be planted with a mix of ferns, grasses and small shrubs which collectively grow less than 1.5m in height, offer good groundcover and evergreen seasonal interest. Indicative mix to include:

- Hard Fern *Blechnum spicant*
- Male Fern *Dryopteris filix-mas*
- Shuttlecock fern *Matteuccia struthiopteris*
- Soft Shield Fern *Polystichum setiferum*
- Coral Bells Var. *Heuchera* species
- Sedges Var. *Carex* species
- Hellebores Var. *Helleborus* species
- Ivy Var. *Hedera* species



Mixed ferns and sedges



Hellebores and ferns



Flex MSE shortly after construction



Flex MSE once planting is well established



Hard Fern



Coral Bells



Sedge and ivy

Hard Landscape Materials

The materials palette will be specified to be sensitive to the semi-rural setting of the Site yet suitable for the intensity of the uses and footfall.

- Access road surface material: Permeable MOT Type 3 Sub Base in a buff/light grey limestone colour
- All other surfacing material: Loose limestone / hardcore stone chippings in light grey
- Fencing: 2.5m high green weldmesh fencing to gates and perimeter of the site
- Battery units: The battery storage units will be a light grey (RAL 7035), the Inverter Units will be in a mid grey (RAL 9006) and the and Sub Station and associated equipment will be green.



MOT Type 3 Sub Base



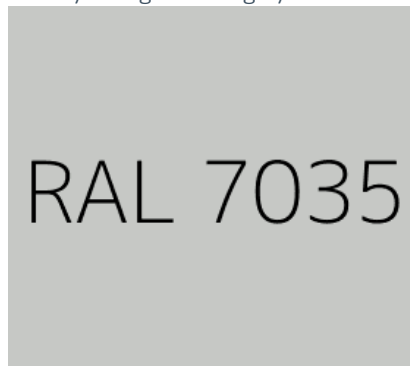
Loose limestone / hardcore chippings



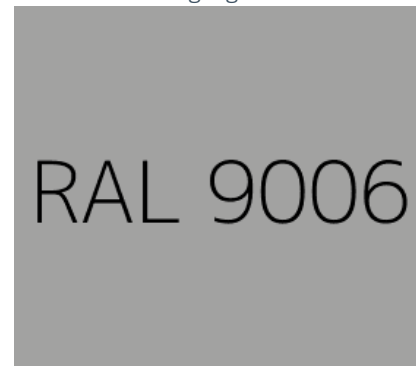
Battery storage units in greys



Weldmesh fencing in green



Light grey



Mid grey



KEY

 Application boundary

Existing

-  Native species tree
-  Native, moderate-quality, single-species hedgerow (Hawthorn)
-  Native, low-quality, single-species hedgerow (Cypress)
-  Native, low-quality, mixed-species tree group

Proposed

-  Native species tree
-  Native species rich hedgerow
-  Native woodland and understorey
-  Habitat area
-  Meadow grassland
-  Green retaining wall
-  20m powerline offset (no tree planting)



BNG HABITAT CREATION SCHEDULE

Typology	Area/Length Achieved
AREA	
Retained native, low-quality, mixed-species tree group	0.03 ha
Proposed woodland/ tree group	0.05 ha
Proposed habitat area	0.15 ha
Proposed meadow grassland	0.10 ha
Proposed green retaining wall	0.02 ha
TOTAL	0.35 ha
LENGTH	
Existing native, moderate-quality, single species hedgerow	149 m
Existing native, low-quality, single species hedgerow	32 m
Proposed hedgerow	130 m
TOTAL	311 m

Fig. 2: Landscape and Planting Strategy Plan

For further information contact

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