



HELIOS RENEWABLE
ENERGY
PROJECT

PINS Document Number:
EN010140/APP/6.2.7.23

Pursuant to:
APFP Regulation 5(2)(a)

Environmental Statement Figure 7.23: Landscape Strategy Schedules and Notes

June 2024

PLANTING NOTES

General

- All landscape operations to be undertaken in appropriate climactic conditions for the work in hand.
- Plant material to conform to the National Plant Specification. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.
- Imported topsoil (if required) to BS 3882 Low Fertility Grade and from an approved source. Existing topsoil shall have a maximum 35% clay content and minimum 5% organic content, pH 5.5-8.5 and be free of perennial weeds, weed seeds and contamination. Maximum stone content 20% (>20mm particle size), maximum size of stones 50mm in any direction. Existing topsoil to be ameliorated and/or screened if necessary to achieve this specification.
- Soil conditioner: Sanitized and stabilised compost to BSI PAS 100. Apply 75mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified, or conforming to the specification from an approved supplier. Compost will only be used if necessary.
- Mulch planting beds with matured coniferous bark, with an even particle size between 5-35mm, to 75mm minimum depth over weed-free soil after completion of planting and watering operations.

Seeding

- For arable areas prepare the seed bed through cultivation to remove weeds, or crop stubble. Harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.
- Sow seed across the surface at an even distribution at rates specified by supplier, and firm in with a roller to give good soil/seed contact.
- For existing areas of grassland, do not remove existing sward. Mow, scarify and overseed only.

Hedgerows

- Prepare a 0.5m wide x 0.3m deep weed-free trench for each row (or larger if necessary, in order to take the full spread of the roots); the sides and bottom of the trench will be forked over and 'ripped' to facilitate proper drainage, prior to back-filling. The trench to be excavated on the same day as planting and to be back-filled with an appropriate excavated topsoil/ compost mix. n. Hedgerow to be cultivated by hand only in proximity to existing trees/hedgerow. No herbicide.
- When backfilling, ensure the original root collar is at ground level after backfilling and firming in.
- For existing hedgerows, an allowance of hedgerow plants has been specified based on the general conditions identified across the site. However the contractor shall be responsible for distributing plants in a manner that best supports the overall aim of reinforcing existing hedgerows. Plant bare root transplants and container-grown shrubs at 0.5m centres on the back of the existing hedgerows or fill any gaps larger than 0.5m. Hand dig with care in proximity to existing hedgerows and do not sever any roots larger than 2.5cm in diameter.
- For new hedgerows, plant shrubs at 0.5m centres in two staggered rows set 0.5m apart.
- Hedgerow plants to be installed with rabbit protection, as follows:
 - Transplants, cuttings and seedlings: PP photodegradable tube guards 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo cane inserted 300mm below ground level.
 - Container-grown shrubs: recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit diameter of shrub, supported by 900mm timber stake inserted 300mm below ground level.Ensure protection methods do not restrict natural movement or growth.
- Where new or existing hedgerows are within areas proposed for grazing, they shall be protected with stock fences as appropriate to ensure their successful establishment and ongoing health.

Tree and Scrub Planting

- Plants to be installed with rabbit protection, in the same method as hedgerow plants. Feathered trees and standards to be protected with 1.2m x 20cm diameter Mesh Tree Guard Cut Pieces with a 1.35m x 32mm stake. Notch plant bare root transplants. Hand dig with care in proximity to existing trees and do not sever any roots larger than 2.5cm in diameter. Feathered stock and standards shall be pit planted as in a 0.5m x 0.5m pit (or larger if required) to a matching specification as hedgerow planting.
- Large trees shall be planted at least 2m away from proposed security fencing to ensure branches do not extend over fencing.

Planting seasons

- Planting seasons:
 - Deciduous trees and shrubs: Late October to late March
 - Conifers and evergreens: September/October or April/May
 - Container grown plants: At any time if ground and weather conditions are favourable
 - Grass seeding: March/April or September/October

OUTLINE MAINTENANCE STRATEGY

Establishment and Maintenance Period (Years 1-5)

Pruning generally

- All dead, damaged or diseased tree branches shall be removed and arisings removed from site. Trees and shrubs shall be pruned in the appropriate season to maintain health and vigour and to prevent encroachment on access route/storage areas, etc. The removal of vegetation will be timed for outside of the bird nesting season (March to August inclusive) to prevent disturbance of breeding birds. If this is not possible, a check for active nests will first be undertaken by an ecologist. If a nest is found, an appropriate buffer will be left undisturbed until any chicks have fledged, as confirmed by an ecologist.

Existing & Proposed Hedgerows

- Hedgerows shall be trimming on one side per year alternating on a 2 or 3 year rotation in February, aiming to maintain a minimum height of 2.5 - 3m to promote bushy growth while providing continued habitat and foraging opportunities for wildlife.
- Hedgerow trees shall be protected during trimming and allowed to develop to full maturity.

Existing and Proposed Grassland

- Grassland within perimeter fences to be sheep-grazed or mown as required to prevent shading of the panels or security features. Areas outside perimeter fence to be mown no more than once annually.

Scrub

- Areas to be thinned and trimmed to a height of between 1 and 3 meters on a 3 year rotational basis.

Woodland

- Re-mulch planting area during years 1-3 to minimise competition from weeds and grasses.
- Carry out selective thinning and coppicing of approximately 30% of plants in Year 5. Leave deadwood and brush piles in situ.

General

- All areas of planting and grass shall be maintained, to include:
 - Ample irrigation
 - Weed control (herbicide application or hand weeding)
 - Litter picking
 - Topping up of mulch
 - Checking condition of tree stakes and ties
- All stakes and ties shall be inspected during the growing season and adjusted as necessary to ensure that they are secure and firm and that the ties are not chaffing the stem of the trees. Stakes and ties shall be removed and disposed of when plants become self supporting or at the end of the 5 year establishment period.
- All soft and hard landscaping shall be inspected annually by the Landscape Contract Manager and an arboriculturist if necessary and tree works carried out as necessary to ensure the continued health and safety of the trees. Regular weed control and litter picking operations will be required.
- Planting which fails to thrive or dies during the 5-year establishment period shall be replaced within the next suitable planting season.

Hedgerow Trees					
Abbreviation	Species	Common Name	Specification	Height	Density
Ac ca	Acer campestre	Common Maple	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Al gl	Alnus glutinosa	Common Alder	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Qu pe	Quercus petraea	Sessile Oak	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Qu ro	Quercus robur	Common Oak	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
So au	Sorbus aucuparia	Rowan	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Ti eu	Tilia x europaea	Common Lime	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Total Number of Hedgerow Trees = 221					

Canopy Trees					
Abbreviation	Species	Common Name	Specification	Height	Density
Al gl	Alnus glutinosa	Common Alder	Feathered: 5 brks: 2x: B	175-200cm	Counted
Po ni	Populus nigra	Black Poplar	Feathered: 3 brks: 2x: B	175-200cm	Counted
Qu pe	Quercus petraea	Sessile Oak	Feathered: 5 brks: 2x: B	175-200cm	Counted
Qu ro	Quercus robur	Common Oak	Feathered: 5 brks: 2x: B	175-200cm	Counted
Sa al	Salix alba	White Willow	0/1/2: Transplant - cutting raised: B	175-200cm	Counted
Sa ca	Salix caprea	Goat Willow	Feathered: 5 brks: 2x: B	175-200cm	Counted
Sa fr	Salix fragilis	Crack Willow	0/1/2: Transplant - cutting raised: B	175-200cm	Counted
Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	Counted
Total Number of Canopy Trees = 148					

Proposed Woodland							
Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
348	Ac ca	Acer campestre	Common Maple	Feathered: 3 brks: 2x: B	125-150cm	2Ctr	1%
2918	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
2918	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	80-100cm	2Ctr	9%
2918	Be pe	Betula pendula	Common Silver Birch	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
668	Be pe	Betula pendula	Common Silver Birch	Feathered: 3 brks: 2x: B	125-150cm	2Ctr	2%
2918	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	2Ctr	9%
2918	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	2Ctr	9%
2918	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	2Ctr	9%
668	Qu pe	Quercus petraea	Sessile Oak	Feathered: 3 brks: 2x: B	150-175cm	2Ctr	2%
2918	Qu pe	Quercus petraea	Sessile Oak	1+2: Transplant - seed raised: B	80-100cm	2Ctr	9%
2918	Qu ro	Quercus robur	Common Oak	1+2: Transplant - seed raised: B	60-80cm	2Ctr	9%
668	Qu ro	Quercus robur	Common Oak	Feathered: 2 brks: 2x: B	125-150cm	2Ctr	2%
2918	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
2918	Ti co	Tilia cordata	Small-leaved Lime	1+1: Transplant - seed raised: B	80-100cm	2Ctr	9%
668	Ti co	Tilia cordata	Small-leaved Lime	Feathered: 3 brks: 2x: B	150-175cm	2Ctr	2%
348	Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	2Ctr	1%
Total :32548	Plant in in single species groups of 3-5 plants.						

Existing Woodland Reinforced							
Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
7	Ac ca	Acer campestre	Common Maple	Feathered: 3 brks: 2x: B	125-150cm	8Ctr	1%
22	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
22	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	80-100cm	8Ctr	9%
9	Be pe	Betula pendula	Common Silver Birch	Feathered: 3 brks: 2x: B	125-150cm	8Ctr	2%
22	Be pe	Betula pendula	Common Silver Birch	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
22	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	8Ctr	9%
22	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	8Ctr	9%
22	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	8Ctr	9%
22	Qu pe	Quercus petraea	Sessile Oak	1+2: Transplant - seed raised: B	80-100cm	8Ctr	9%
9	Qu pe	Quercus petraea	Sessile Oak	Feathered: 3 brks: 2x: B	150-175cm	8Ctr	2%
9	Qu ro	Quercus robur	Common Oak	Feathered: 2 brks: 2x: B	125-150cm	8Ctr	2%
22	Qu ro	Quercus robur	Common Oak	1+2: Transplant - seed raised: B	60-80cm	8Ctr	9%
22	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
9	Ti co	Tilia cordata	Small-leaved Lime	Feathered: 3 brks: 2x: B	150-175cm	8Ctr	2%
22	Ti co	Tilia cordata	Small-leaved Lime	1+1: Transplant - seed raised: B	80-100cm	8Ctr	9%
7	Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	8Ctr	1%
Total :270	Plant in in single species groups of 3-5 plants.						

Proposed Hedgerow Mix							
Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
7374	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	80-100cm	0.5Ctr Double Staggered at 0m offset	15%
7374	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 4 brks: B	80-100cm	0.5Ctr Double Staggered at 0m offset	15%
7374	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	0.5Ctr Double Staggered at 0m offset	15%
4933	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	0.5Ctr Double Staggered at 0m offset	10%
7374	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	80-100cm	0.5Ctr Double Staggered at 0m offset	15%
7374	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	0.5Ctr Double Staggered at 0m offset	15%
7374	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	80-100cm	0.5Ctr Double Staggered at 0m offset	15%
Total :49177	Plant in in single species groups of 3-7 plants.						

Existing Hedgerow to be Reinforced							
Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
1217	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	80-100cm	2Ctr Double Staggered at 0m offset	15%
1217	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 4 brks: B	80-100cm	2Ctr Double Staggered at 0m offset	15%
1217	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	2Ctr Double Staggered at 0m offset	15%
820	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	2Ctr Double Staggered at 0m offset	10%
1217	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	80-100cm	2Ctr Double Staggered at 0m offset	15%
1217	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	2Ctr Double Staggered at 0m offset	15%
1217	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	80-100cm	2Ctr Double Staggered at 0m offset	15%
Total :8122	Plant in in single species groups of 3-7 plants. Assumed 25% quantity for existing hedgerow to be gapped up.						

Scrub							
Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
1511	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	60-80cm	1.5Ctr	15%
1511	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1.5Ctr	15%
1511	Cr mo	Crataegus monogyna	Common Hawthorn	1+1: Transplant - seed raised: B	60-80cm	1.5Ctr	15%
1511	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	60-80cm	1.5Ctr	15%
1511	Ri sp	Ribes spicatum	Downy Currant	3 brks: C	40-60cm	1.5Ctr	15%
1511	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1.5Ctr	15%
1010	Sa ci	Salix cinerea	Grey Willow	0/1: Cutting: Branched: 2 brks: B	60-80cm	1.5Ctr	10%
Total :10076	Plant in in single species groups of 3-5 plants.						

Summary of Landscape Elements	
Proposed Landscape Areas	Area (ha) Approx.
Proposed Woodland Planting	13.6
Existing Woodland to be Reinforced	0.6
Proposed Scrub Mix	2.3
Proposed Grassland within Fence	288.2
Proposed Tussock Grassland outside Perimeter Fence	52.6
Proposed Wildflower Meadow	1.6
Proposed Wetland Grass	16.8
Proposed Habitat Pond	0.4
Proposed Habitat Scrapes	0.3
Individual Trees	Number
Canopy Trees	148
Hedgerow Trees	221
Hedgerow	Length (km) Approx.
Existing Reinforced Hedgerow	7.9
Proposed Hedgerow	12.0



Project Title:
Helios Renewable Energy Project

Drawing Title:
Landscape Planting Schedule and Notes

DRWG No: **FIGURE 7.23** Rev: **0** Sht no: **-**

Drawn by : **HD** Checked by: **SM**

Scale: **N/A** Date: **JUNE 2024**