EAST CLAYDON BATTERY ENERGY STORAGE FACILITY ON LAND NEAR THE EAST CLAYDON SUBSTATION BUCKINGHAMSHIRE

LANDSCAPE SPECIFICATION

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Authors Name: Chris McDermott			
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1 Introduction

1.1 This document specifies the landscape for a proposed Battery Energy Storage System (BESS) on farmland near the East Claydon Substation, Buckinghamshire. The Site is located on plan SL261_L_X_LP_01 Location Plan (Appendix A) which also numerically identifies the four fields which comprise the main Site. The landscape design is set out in drawings SL261_L_X_P_1, SL261_L_X_P_2, 502_PP_4 and 502_PP_5 Planting Plan (Appendix A). The Site is currently farmed as an arable rotation. A temporary haul route will extend north from the main Site up to the East Claydon Road. It will be formed from laying removable mats laid onto of the existing sward. On completion of construction the mats will be removed, and the ground restored using normal agriculture cultivation.

1.2 The landscape, habitats and their management have been designed by Future Nature, the consultancy arm of the Bucks, Berks and Oxon Wildlife Trust, in conjunction with Sightline Landscape, Morton Pattison and Statera.

2 Planting Specification and Long-Term Management

2.1 The landscaping works are to be undertaken in accordance with the specification and are to be managed in accordance with the East Claydon BESS Landscape and Ecological Management Plan. The landscape design has two main functions, to minimise the visibility of the Proposed Development within the landscape and maximise the biodiversity across the Site. The existing arable land has a limited benefit to wildlife. The landscape design seeks to establish a range of permanent habitats across the Site, including:

- Permanent meadow grassland
- Tussocky grassland
- Wet grassland
- Scrub
- Woodland
- Orchard
- Ephemeral ruderal ‘waste ground’ habitat on the roofs of the inverter houses
- Permanent ponds
- Temporary ponds
- Riparian pond and brook marginal habitat

- Beetle banks and other habitat features

2.2 The method for establishing these habitats together with the species mix, plant size and density are specified for each.

3 Grassland Establishment

3.1 The Fields 1,2 and 3 will be stripped of topsoil at the start of the construction process with sufficient stockpiled in Field 4 to be redistributed to tree and scrub planting areas. The temporary topsoil heap shall be no higher than 1 metre. Meadow diversity is enhanced if nutrient levels are low, restricting the growth of the grasses. To maintain low nutrient levels in the wildflower areas only 50mm of topsoil is to be respread over proposed wildflower areas. This layer is to be cultivated into the top 150mm layer of subsoil. The contractor shall establish a fine friable seedbed down to 100 mm in depth. Carry out two equal sowings at right angles to each other and diagonally to main axis. Broadcast manually or use seed drill, rake level and roll. Ensure good seed to soil contact. Sward types and seeding mixes are set out below. It is accepted that mix percentages may change slightly due to supplier and harvest, but suppliers and mixes must be approved by the supervising landscape architect.

G1 – Main areas of grassland

3.2 To be sown with Emorsgate EM2 General Purpose Meadow Mixture at a rate of 4g/square metre. The mixture suits a range of soil types and mowing regimes.

Composition
Wild Flowers – 15%

%		
0.75	Achillea millefolium	Yarrow
0.30	Agrimonia eupatoria	Agrimony
1.50	Centurea nigra	Common Knapweed
0.90	Daucus carota	Wild Carrot
0.30	Rumex acetosa	Common Sorrel
1.50	Galium verum	Lady's Bedstraw
0.45	Knautia arvensis	Field Scabious
1.27	Leucanthemum vulgare	Oxeye Daisy
1.80	Malva moschata	Musk Mallow
1.80	Plantago lanceolata	Ribwort Plantain
0.90	Poterium sanguisorba ssp sanguisorba	Salad Burnet

0.30	Primula veris	Cowslip
0.75	Ranunculus acris	Meadow Buttercup
1.50	Silene dioica	Red Campion
0.98	Rhinanthus minor	Yellow Rattle

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

G2 – Species rich tussocky grass sward in wetter areas

3.3 A mix with a high percent of tussock forming grasses which can provide good cover for invertebrates and mammals. A good mix for damp areas in hollows or around ponds where frequent mowing may be difficult. Example mix Emorsgate Tussock Mix EM10, https://wildseed.co.uk, at a rate of 6g/m2 or similar to approval. This is to be sown from the top of the banks around the ponds, back across the surrounding level land for a distance of 5 - 10m. Also to be sown on the beetle banks.

Composition
Wildflowers 20%
%

0.8	Achillea millefolium	Yarrow
0.4	Agrimonia eupatoria	Agrimony
0.1	Arctium minus	Lesser Burdock
1.4	Centaurea nigra	Common Knapweed
1.0	Centaurea scabiosa	Greater Knapweed
0.8	Chaerophyllum temulum	Rough Chervil
0.5	Cruciata laevipesCirsium	Cross Wort
1.0	Daucus carota	Wild Carrot
1.6	Dipsacus fullonum	Wild Teasel
0.8	Filipendula ulmaria	Meadowsweet
1.8	Galium album	Hedge Bedstraw
0.8	Knautia arvensis	Field Scabious
0.4	Lathyrus pratensis	Meadow Vetchling
1.6	Leucanthemum vulgare	Oxeye daisy
0.4	Lotus corniculatus	Birdsfoot Trefoil
1.6	Malva moschata	Musk Mallow
1.6	Poterium sanguisorba	Salad Burnet
1.8	Plantago lanceolata	Ribwort Plantain

0.8	Ranunculus acris	Meadow Buttercup
1.8	Poterium sanquisorba	Salad Burnet
1.2	Silene dioica	Red Campion
0.4	Vicia Cracca	Tufted Vetch

Grasses – 80%

4.00	Alopecurus pratensis	Meadow Foxtail (w)
20.00	Cynosurus cristatus	Crested Dogstail
16.00	Dactylis glomerata	Cocksfoot (w)
12.00	Festuca rubra ssp rubra	Strong-creeping Red Fescue
8.00	Holcus lanatus	Yorkshire Fog
4.00	Lolium perenne	Perennial Ryegrass (w)
6.40	Poa pratensis	Smooth-stalked Meadow-grass
9.60	Schedonorus arundinaceus	Tall Fescue

G3 – Wetland grass mix to be sown around the margins/bases of the attenuation ponds

3.4 To be sown within the draw down areas of the ponds in early spring when the drawdown areas are empty but moist. To include species which thrive in damper conditions, such as Emorsgate Pond Edge Mix EP1 at a rate of 6g/m2.

Composition
Wildflowers 20%
%

2.0	Carex divulsa ssp divulsa	Grey Sedge
0.4	Carex pendula	Pendulous Sedge
2.0	Centurea nigra	Common Knapweed
2.0	Cruciata laevipes	Crosswort
0.4	Dipsacus fullonum	Wild teasel
2.0	Filipendula ulmaria	Meadowsweet
0.5	Galium album	Hedge Bedstraw
1.0	Geranium pyreniacum	Hedge Crane's-bill
0.3	Geum rivale	Water Avens
2.6	Iris pseudacorus	Yellow Iris
0.4	Lycopus europaeus	Gypsywort
0.2	Oenanthe pimpinelloides	Corky-fruited Water-dropwort
0.1	Prunella vulgaris	Selfheal
0.5	Rhinanthus minor	Yellow Rattle
2.6	Silene dioica	Red Campion
3.0	Silene flos-cuculi	Ragged Robin

Grasses 80%

2.0	Agrostis capillaris	Common Bent (w)
2.0	Anthoxanthum odoratum	Sweet Vernal-grass (w)
4.0	Briza media	Quaking Grass (w)
48.0	Cynosurus cristatus	Crested Dogstail
2.0	Deschampsia cespitosa	Tufted Hair-grass (w)
22.0	Festuca rubra	Red Fescue

G4 – Bee and butterfly mix within scrub areas

3.5 To be sown within areas planted as scrub to provide cover as a short-term sward which will become shaded out by the scrub as it grows. Example mix Bee & Butterfly Wildflower Seeds LWBP (Landlife Wild Flowers, www.wildflower.co.uk) or other supplier to approval.

Composition %		
1	Agrimonia eupatoria	Agrimony, Common
7	Borago officinalis	Borage
4	Salvia verbenaca	Clary
3	Trifolium pratense	Clover, Red
1	Trifolium repens	Clover White
8	Agrostemma githago	Corn Cockle
6	Centaurea cyanus	Cornflower
5	Ox-eye Leucanthemum vulgare	Daisy
3	Digitalis purpurea	Foxglove
6	Centaurea nigra	Knapweed, Common
5	Centaurea scabiosa	Knapweed, Greater
1	Lythrum salicaria	Purple Loosestrife,
1	Origanum vulgare	Marjoram, Wild
1	Geranium pratense	Meadow Cranesbil
5	Malva moschata	Musk Mallow
5	Papaver rhoeas	Poppy, Common
2	Lychnis flos-cuculi	Ragged Robin
7	Onobrychis viciifolia	Sainfoin
7	Knautia arvensis	Field Scabious,
3	Small Scabious	Scabiosa columbaria
1	Dipsacus fullonum	Teasel
2	Lotus corniculatus Trefoil	Bird's-foot
2	Anthyllis vulneraria	Kidney Vetch
2	Echium vulgare	Viper's Bugloss
5	Achillea millefolium	Yarrow
7	Rhinanthus minor	Yellow Rattle

G5 Seeding around pond NP3

3.6 The margin of the pond is to be sown with Emorsgate EM1F, a pure wildflower seed mix.

Composition %		
3.0	Achillea millefolium	Yarrow
16.0	Centaurea nigra	Common Knapweed
16.0	Leucanthemum vulgare	Oxeye Daisy
16.0	Malva moschata	Musk Mallow
16.0	Plantago lanceolata	Ribwort Plantain
16.0	Poterium sanguisorba	Salad Burnet
7.0	Ranunculus acris	Meadow Buttercup
5.00	Rhinanthus minor	Yellow Rattle
5.0	Daucus carota	Wild Carrot

G6 Wetland Meadows and buffer strips

3.7 These areas comprise existing grass swards. The buffer strips comprise grassland along the edge of the water course, extending 10m into the site. The sward in these areas is to be cut down to 50mm in mid spring and the arisings collected. The area is then to be over sown with Emorsgate EM8F seed mix at a rate of 1.5/g per square metre.

Composition %		
10.0	Achillea millefolium	Yarrow
12.0	Galium verum	Lady's Bedstraw
6.0	Leucanthemum vulgare	Oxeye Daisy (Moon Daisy)
18.0	Plantago lancelata	Ribwort Plantain
4.0	Rumex acetosa	Common Sorrel
1.0	Primula veris	Cowslip
3.0	Silene flos-cuculi	Ragged Robin
5.0	Ranunculus acris	Meadow Buttercup
4.0	Lotus pedunculatus	Greater Birdsfoot Trefoil
2.5	Lathyrus pratensis	Meadow Vetchling
0.5	Succisa pratensis	Devil's-bit Scabious
5.0	Sanguisorba officinalis	Great Burnet
0.5	Vicia cracca	Tufted Vetch
18.0	Centaurea nigra	Common Knapweed
5.0	Filipendula ularia	Meadowsweet
5.0	Rhinanthus minor	Yellow Rattle
0.5	Taraxacum officinale	Dandelion

3.8 All grassland areas are to be managed in accordance with the methodology set out within the Landscape and Environmental Management Plan (LEMP).

4 Specimen Tree Planting

4.1 The following specimen trees are to be planted in the locations shown on the planting plans. The aim of this planting is to establish large stature native trees at key locations to ensure that the proposed development becomes screened as quickly as possible. The trees comprise a mix of fast-growing trees, such as poplar and willow (which are well suited to the wet clay soils of the riparian base of the valley) interspersed with slower growing, long-term trees such as oak and hornbeam. The trees are specified as advanced nursery stock to ensure an early screening effect. While it is accepted that advanced stock trees can be harder to establish, the woodland areas also include a mix of the same species as transplants, whips and feathered trees. The proposed development will have a good water supply and storage associated with the fire safety system and so the design features water supply points for irrigation of trees and shrubs throughout the development (and identified on the planting plans).

Symbol	English Name	Latin Name	Size
Ac	Field Maple	*Acer campestre*	18-20cm girth, semi-mature standard
Ag	Alder	*Alnus glutinosa*	18-20cm girth semi mature, standard
Cb	Hornbeam	*Carpinus betulus*	18-20cm girth semi mature, standard
Pc	Grey poplar	*Populus canescens*	18 – 20cm girth standard
Pn	Black Polpar	*Populus nigra*	0.9 – 1.2m whip
Pt	Aspen	*Populus tremula*	18-20cm girth, standard
Pa	Native cherry	*Prunus avium*	14 -16cm girth standard
Qr	Oak	*Quercus robur*	16 – 18cm girth, standard
Sa	White willow	*Salix alba*	18 - 20cm girth standard
Sc	Goat willow	*Salix caprea*	10 – 12cm standard or feathered tree
Sf	Crack willow	*Salix fragilis*	18- 20cm girth standard

Tree pits to be 150mm wider than the rootball/rootspread in all directions. Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 100 mm. Scarify sides to remove smears from excavator bucket. Backfill with topsoil previously stripped from the site. Incorporate mycorrhizal inoculation. Stakes to be peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end, treated to provide 20-year service life. Position either side of tree

position and perpendicular to wind direction. Drive in until firm and compact material around stake. Sufficiently firm backfill to prevent movement of the rootball/rootstock. Cut off at approximately one third of the height of the clear stem of tree. Provide horizontal bracing: Timber cross bar, 75 mm x 38 mm x 900 mm. Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes. Secure tree firmly with butyl ties but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks or cushions if required. Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads. Nails for fixing cross bars: To BS 1202-1, galvanized round wire, minimum 75 mm long and 3.75 mm gauge. For 20- 25 cm girth trees use three 75mm dia. Stakes and three-way strapping or consider underground guying.

4.2 Cover a 2.0m diameter circular area around each tree with 75mm depth bark mulch (Supplier and sample to approval).

5 Woodland Planting

5.1 The following native species are to be planted within the woodland areas (W1, W2 etc. on the planting plan). The transplants are to be notch planted into either existing undisturbed topsoil or areas topsoiled after construction using topsoil previously stripped from the site and to a minimum depth of 400mm. If undisturbed soil the existing vegetation has to be removed prior to planting. Larger stock trees are to be pit planted. Species and sizes are to be randomly mixed. Trees and shrubs are to be planted at distances of 2 – 3m in a loose grid to give an average density of 1 tree per 6.25 square metres.

5.2 Feathered trees to be staked with a 75mm stake, driven in until firm and cut off at a height of 600mm. Tree to be held firm with one tie with spacer. Transplants are to be protected with a 1200mm high biodegradable tree shelter, colour light brown or green, sample to be approved by the supervising landscape architect prior to delivery to site. See Drawing MP 23042_9 for planting details.

5.3 Once planted the woodland planting areas are to be sown with the G4 Bee and Butterfly mix.

WOODLAND PLANTING MIX

%	English Name	Latin Name	Stock Size
3	Field Maple	Acer campestre	1.5 – 2.0m high feathered trees
5	Field Maple	Acer campestre	60 – 80cm high BR transplants
2	Alder	Alnus glutinosa	1.5 – 2.0m high feathered trees
5	Alder	Alnus glutinosa	60 – 80cm high BR transplants
3	Hornbeam	Carpinus Betula	1.5 -2.0m high feathered tree
5	Hornbeam	Carpinus Betula	60 – 80cm high BR transplants
5	Hawthorn	Crataegus monogyna	1.5 – 2.0m high feathered trees
10	Hawthorn	Crataegus monogyna	60 – 80cm high BR transplants
2	Dogwood	Cornus sanquinea	60 – 80cm high BR transplants
10	Hazel	Corylus avellana	60 – 80cm high BR transplants
2	Crab apple	Malus sylvestris	1.5 – 2.0m high feathered trees
3	Aspen	Populus tremula	0.9 – 1.2m high whip
5	Blackthorn	Prunus spinosa	60 – 80cm BR Transplant
3	Wild Cherry	Prunus avium	1.5 – 2.0m high feathered trees
5	Wild Cherry	Prunus avium	60 – 80cm high BR Transplant
5	Native oak	Quercus robur	1.5 – 2.0m high feathered trees
3	Native oak	Quercus robur	60 – 80cm high BR Transplant
3	Rowan	Sorbus aucuparia	60- 80cm high BR transplant
2	Wild Service Tree	Sorbus torminalis	1.5 – 2.0m high feathered trees
3	Wayfaring Tree	Viburnum lantana	60 – 80cm girth BR transplants

6 Scrub Planting

6.1 The following native trees and shrubs are to be notch planted in scrub areas (S1, S2 etc .on the planting plans. Areas will be either into insitu undisturbed topsoil or areas topsoiled after completion of construction (to a minimum depth of 400mm using topsoil previously stripped from the site). Species and sizes are to be randomly mixed and planted in a loose grid to give an average density of 1 plant per 5 m2. Scrub planted in heterogeneous clumps of 3-7 plants, incorporating scalloped edges to increase the amount of edge habitat available. Gaps left unplanted and allowed to infill naturally. One clump planted every 25m2. Once planted the scrub areas are to be sown with the G5 wildflower mix. Transplants are to be protected with a 750mm high biodegradable tree shelter, colour light brown or green, sample to be approved by the supervising landscape architect prior to delivery to site. See Drawing MP 23042_9 for planting details.

SCRUB PLANTING SPECIES MIX

%	English Name	Latin Name	Stock Size
7.5	Field Maple	*Acer campestre*	60 – 80cm girth BR transplants
20	Hawthorn	*Crataegus monogyna*	60 – 80cm girth BR transplants
10	Dogwood	*Cornus sanquinea*	60 – 80cm girth BR transplants
15	Hazel	*Corylus avellana*	60 – 80cm girth BR transplants
5	Spindle	*Euonymus europaeus*	60 – 80cm girth BR transplants
5	Crab apple	*Malus sylvestris*	2.0 – 2.5m high feathered trees
12.5	Blackthorn	*Prunus avilum*	60 – 80cm girth BR transplants
5	Wild Cherry	*Prunus avium*	2.0 – 2.5m high feathered trees
10	Dog Rose	*Rosa canina*	60 – 80cm girth BR transplants
10	WayfaringTree	*Viburnum lantana*	60 – 80cm girth BR transplants

7 Hedge planting

7.1 To be planted in a minimum 500mm depth topsoil, previously stripped from the Site. Topsoil to form a 500mm high and 200mm wide hedgebank before planting. Transplants to be planted as two staggered rows, 400 mm between rows and plants. The species are to be randomly mixed. Once planted the area is to be mulched with well composted bark mulch to a depth of 75mm. Width of mulched area to be 2 m wide. Transplants are to be protected with a 600mm high biodegradable tree shelter, colour light brown or green, sample to be approved by the supervising landscape architect prior to delivery to site. See Drawing MP 23042_9 for planting details.

HEDGE PLANTING SPECIES MIX

Key	English Name	Latin Name	Stock Size
15%	Field maple	*Acer campestre*	60 – 80cm high BR transplants
25%	Hawthorn	*Crataegus monogyna*	60 – 80cm high BR transplants
5%	Dogwood	*Cornus sanquinea*	60 – 80cm high BR transplants
15%	Hazel	*Corylus avellana*	60 – 80cm high BR transplants
3%	Spindle	*Euonymus europaea*	60 – 80 cm BR transplant
2%	Honeysuckle	*Lonicera periclymenum*	2 Litre transplants
5%	Wild privet	*Ligustrum vulgare*	60 – 80 cm high BR transplants
20%	Blackthorn	*Prunus spinosa*	60 – 80cm high BR transplants
7%	Dog rose	*Rosa canina*	60 – 80cm high BR transplants
6%	Wayfaring Rose	*Viburnum lantana*	60 – 80cm high BR transplants

8 Orchards

The orchard is to be planted out in accordance with planting plan MP23042 -11 and landscape detail plan MP23042 – 09. All selected varieties proposed in the orchard originate from Buckinghamshire and the south-east of England. It is likely that not all of the varieties will be available at the point of carrying out the work: in this instance it is recommended to substitute with appropriate alternative local varieties, under the guidance of a suitably experienced grower.

The trees to be planted are:

Malus domestica ‘Arthur turner’, MM106, Maiden, bareroot, age 1 y/o	10 No
Malus domestica ‘Grenadier’, MM106, Maiden, bareroot, age 1y/o	10 No
Malus domestica ‘Reverand W. Wilks’, MM106, Maiden, bareroot, age 1y/o	10 No
Malus domestica ‘Cox’s Orange Pippin’MM106, Maiden, bareroot, age 1y/	10 No
Malus domestica 'Core Blimey', MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica 'Claygate Pearmain' MM106, age 1y/o	5 No
Malus domestica ‘Charles Ross’ MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica 'Blenheim Orange' MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica ‘Bladon pippin’ MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica 'Warner's King' MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica 'Sunset' MM106, Maiden, bareroot, age 1y/o	5 No
Malus domestica 'Bountiful' MM106, Maiden, bareroot, age 1y/o	5 No
Prunus insititia ‘Aylesbury Prune’ St. Julien A, Maiden, bareroot, age 1y/o	10 No
Prunus domestica ‘Guinevere’ St. Julien A, Maiden, bareroot, age 1y/o	8 No
Prunus insititia 'Farleigh Damson' St. Julien A, Maiden, bareroot, age 1y/o	8 No
Prunus domestica 'Marjorie's Seedling' St. Julien A, Maiden, bareroot, age 1y/o	7 No
Prunus ‘Malling Elizabeth’ St. Julien A, Maiden, bareroot, age 1y/o	7 No
Prunus domestica 'Blue Tit’ St. Julien A, Maiden, bareroot, age 1y/o	7 No
Prunus domestica 'Victoria' St. Julien A, Maiden, bareroot, age 1y/o	7 No
Pyrus communis 'Merton Pride' Pyro dwarf, Maiden, bareroot, age 1y/o	6 No
Pyrus communis 'Concorde' Quince A, Maiden, bareroot, age 1y/o	6 No
Pyrus communis Beth Quince A, Maiden, bareroot, age 1y/o	6 No
Pyrus communis 'Onward’ Quince A, Maiden, bareroot, age 1y/o	6 No

Pyrus communis 'Williams bon Chretien' Quince A, Maiden, bareroot, age 1y/o	6 No
Prunus avium 'Merton Glory' Colt, Maiden, bareroot, age 1 y/o	6 No
Prunus avium 'Penny' Colt, Maiden, bareroot, age 1 y/o	6 No
Prunus avium 'Amber Heart' Colt, Maiden, bareroot, age 1 y/o	6 No
Prunus avium 'Knights Early Black' Colt, Maiden, bareroot, age 1 y/o	6 No
Prunus avium 'Roundel Heart Colt', Maiden, bareroot, age 1 y/o	6 No
Prunus persica 'Gorgeous' St. Julien A, Maiden, bareroot, age 1y/o	6 No
Corylus avellana 'Kent Cob' Bush, bareroot, age 2 y/o	8 No

9 Ponds

9.1 The existing and proposed ponds are referenced on the planting plans (NP1, NP2, etc.) and the specification for the creation and enhancement for each is listed below.

9.2 Areas shall be cleared, grubbed and stripped of topsoil, with soil arisings being formed into adjacent mounds or hedge banks as indicated, excess can be deposited at solitary bee habitat mound locations. All plant material can be transported and deposited at the hibernacula / habitat piles. Waste should be removed from site by licensed waste carrier. Banks should be excavated and graded as indicated in the cross-section drawings to no steeper than 1:1, smoothly contoured and free of objectionable material. Some pond edges in every pond should be gently graded to provide easy access / egress for wildlife (1:2 gradient).

9.3 Where ponds are specified as lined the liner shall be a single piece, 1mm thick EPDM flexible rubber liner, laid to maintain continuity and according to manufacturer's instructions. Minimum 250g/m2 protective geotextile matting will be used as continuous layers above and below the liner. Geotextile and membranes will be trench anchored at the edges, ensuring that the top edge of the liner is installed level. The membranes should be protected by burying with a minimum depth of backfill material of 150mm as soon as possible after installation.

EP1 Existing unlined feature to be retained as a seasonal pond. Suggested improvements: Remove stock fence and bramble to reconnect with Field 1 to the west. Crown lift and cut back Oak, Elm and White poplar from south and west side to allow more light in. Remove existing scrub to the south. Average 1m depth.

NP1 Lined with 1mm EPDM liner, arisings to form banks on which to plant hedges. Remaining arisings to form a south facing beetle bank on northern edge of pond and planted with a Emorsgate Tussock seed mixture EM10. Beetle bank. Emorsgate Pond edge mixture EP1 used to seed pond edge. Average 1m depth. Refer to MP 23042_3 for details.

NP2 Lined with 1mm EPDM liner, positioned 2m from base of existing hedgerow, nestled between small woodland copse and Ash trees. Allow hedge to grow up immediately to east of pond. Arisings formed into South facing bank on Northern edge of pond and sown with Emorsgate Tussock seed mixture EM10. Emorsgate Pond edge mixture EP1 used to seed pond edge. Average 1m depth. Refer to MP 23042_3 for details.

NP3 and **NP4** Unlined, seasonal attenuation ponds. Arisings used to form mound on which to plant new hedges. Remaining estimated soil arisings to be formed into 1m high beetle bank to the East, gradually grading up from the shallow pond edge. Bank seeded with Emorsgate Wildflower mix EM1F. the entire pond to be seeded with Emorsgate wet meadow mix EM8. See drainage engineers report for profiles.

NP5 Unlined, seasonal attenuation pond. Some arisings to contribute toward South facing beetle bank seeded with a Emorsgate Tussock seed mixture EM10. Emorsgate Pond edge mixture EP1 used to seed pond edge. See drainage engineers report for profiles.

NP6 Comprising 3 separate ephemeral ponds, unlined. Clusters of native scrub to be planted around the periphery. Average 300m depth. Refer to MP 23042_8 for details.

10 Works to existing hedges

10.1 Prior to the start of works the hedges are to be protected with tree protection fencing set a minimum of 5m from the hedge (refer to the Arboricultural Implications Report). The fencing shall be maintained in place for the duration of the construction works. All hedges are to be cut on 3 year rotation. New trees to be planted to bring total no. of trees in hedgerow up to average 30m spacing. Dying ash to be retained as good deadwood habitat, perches etc. Willows and poplars that have previously been pollarded are to be pollarded on a three-year rotation.

EH1 Allow to grow southwards to merge into new woodland planting. Plant 1 new tree at north west end. Flail 20m section of hedgerow on 3 year rotation in gap between woodland planting.

EH2 Re-pollard existing willow pollard, then at 3 year intervals. Allow hedge to grow southwards to merge with scrub planting.

EH3 Allow to grow as screening, manage according to the LEMP. Plant standard trees as shown adjacent to the hedge.

EH4 Cut 10m gap in hedge to create new track access. Material to be placed at deadwood locations D1 and D2. Plant standard trees as shown adjacent to the hedge. Manage according to the LEMP.

EH5 Allow to grow as screening. Central 20m section where new tree planting is absent to be rough laid on 10-15 year cycle. Plant standard trees as shown adjacent to the hedge. Manage according to the LEMP.

EH6 Allow to grow up as screening, manage according to the LEMP. Plant standard trees as shown adjacent to the hedge.

EH7 Allow to grow southwards to merge with woodland planting block. Plant standard trees as shown adjacent to the hedge.

EH8 Allow to grow as screening. Gap up 10m section at north east end with double staggered row of hedge stock, 5/linear m. Plant standard trees as shown adjacent to the hedge.

EH9 Allow hedge to merge with woodland planting in northern section. Plant standard trees as shown adjacent to the hedge.

EH10 Gap up 24m section near eastern end with double staggered row of hedge stock, 5/linear m. Plant standard trees as shown adjacent to the hedge.

10.2 A 2m wide marginal grassland parallel with each existing hedge to be retained & enhanced through annual cut & collect operation. Arisings deposited on-site in specified hibernacula / habitat pile locations.

11 Biodiverse Green Roofs on the inverter buildings

11.1 The roof build up is to be undertaken in accordance with Drawing SD_9. The substrate is to be left to develop vegetive growth naturally and managed in accordance with the LEMP.

12 Sky Lark Plots

12.1 Create five 5m x 5m bare patches of soil by removing the top layer of soil using an excavator or turf cutter or by scarifying the surface. Leave this 25m2 area unseeded and bare. Repeat activity annually in February – March. Allow the surrounding meadow to grow up uncut until at least after the bird nesting season (late August).

13 Hibernacula Habitat Piles

13.1 Create hibernacula habitat piles from logs, branches, rocks and other appropriate materials. Opportunity for material to be won elsewhere on site. Approx. 25sqm area (5x5m) available to utilise. Top up HHP with cut and collect arisings. Ensure that a 6m access gap is left between the HHP and the existing hedges. See drawing MP 23042 _10.

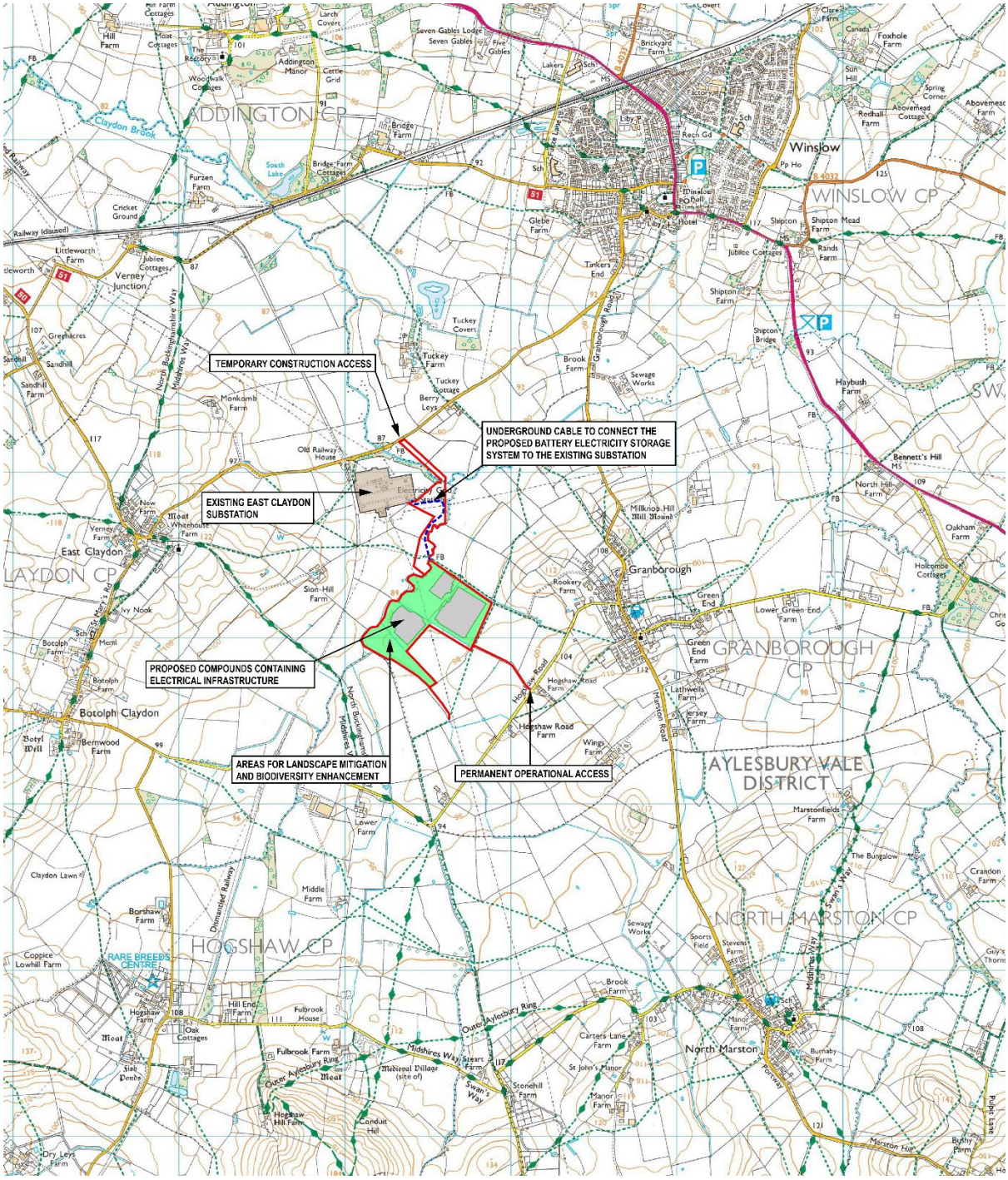
14 Solitary Bee Habitats

14.1 Create mounds from a variety of substrates including sand, gravel, rubble and crushed building materials. See drawing MP 23042 _10.

15 Standing/piles of deadwood

15.1 Create deadwood piles and standing deadwood. Approx. 25sqm area (5x5m). See drawing MP 23042 _10.

APPENDIX A: LOCATION PLAN



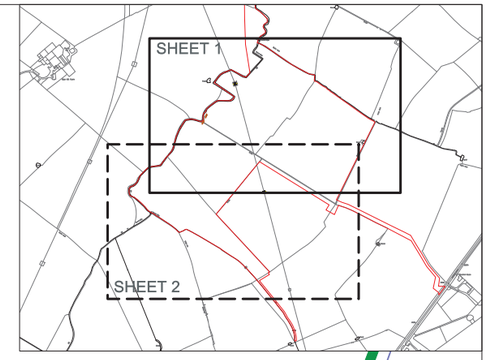
Location Plan

APPENDIX B: PLANTING PLANS

N

0 10 20 50 100m

SCALE 1:1,000



Inset map scale 1:10,000

Footbridge

Path (um)

Temporary construction haul road and contractors compounds See SD_2 SD_14 and SD_25

Palisade FEnce to substation SD_4

Box culvert road crossing See SD_22

Pond

Enhanced wet meadow

Flood Zone 2

Scrub S5

Flood Zone 3

SUBSTATION

Welfare & spares containers

Contractors compound 2

Footbridge crossing over ditches See SD_19

FIELD 1

Beetle Bank

NP2

WT

Proposed attenuation pond

NP4

NP3

HHP3

SBH5

Contractors compound 1

Beetle bank

Compound 1

KG

Kissing gate with waymarker post see SD_17 and SD_18

Flood Zone 2

Flood Zone 3

Footbridge crossing over ditch SD_19

Kissing gate with waymarker post see SD_17 and SD_18

Stock fence SD_21

FIELD 3

SBH 5

Compound 2

SBH6

SBH7

GATE

EH8

WILDLIFE PONDS & SCRUB

NP6

D2

Scrub

Existing farm track made good to form a second access for emergency vehicles only (not for construction)

FIELD 2

NP1

EP1

W3

Landscape design produced in collaboration with Future Nature, the consultancy arm of the

Berkshire Buckinghamshire & Oxfordshire Wildlife Trust

Revision	Date	Comment
-	-	-

Refer to the East Claydon BESS Landscape Specification Document for full planting details and the Landscape and Ecological Management Plan for its ongoing management.

STATERA
BALANCING THE GRID

Legend

SD refers to a Standard Detail drawing number

- Site boundary
- Existing trees
- Existing hedgerows
- Proposed native broadleaved woodland
- New native scrub planting
- Hibernacula/habitat piles
- New substation compound
- 2.5m high security fencing SD_3 (SD_4 to substation)
- Crushed stone access track SD_15
- 5.5 wide crushed stone access track SD_1
- Existing hedgerow removed
- Solitary bee habitat
- Attenuation pond
- Loose permeable gravel SD_15
- Wild flower grassland
- Retained grassland
- Enhanced wet meadow
- Standing piles/deadwood
- Wildlife pond
- Proposed hedgerow planting
- Public Right of Way
- Proposed tree
- Proposed orchard tree
- KG Kissing gate SD_17
- Flood zone 2
- Flood zone 3
- W Source of water for irrigation trees during periods of inadequate rainfall
- 4m high infrared CCTV pole SD_11
- Footbridge SD_19
- 1.5m high post and wire stock fence SD_21
- Permissive access to nature reserve area for the operational life of the facility
- Temporary construction haul road and contractors compound
- Indicative drainage channel
- Inverter building with biodiverse roof (total 37) SD_9
- Transformer (total 74) SD_5
- Battery container (total 888)SD_6
- Storage container SD_7
- Control room (total 7) SD_13
- WT Water tank (total 5) SD_12

Symbol	English Name	Latin Name	Size
Ac	Field Maple	*Acer campestre*	18-20cm girth, semi-mature standard
Ag	Alder	*Alnus glutinosa*	18-20cm girth semi mature, standard
Cb	Hornbeam	*Carpinus betulus*	18-20cm girth semi mature, standard
Pc	Grey poplar	*Populus canescens*	18 – 20cm girth standard
Pn	Black Polpar	*Populus nigra*	0.9 – 1.2m whip
Pt	Aspen	*Populus tremula*	18-20cm girth, standard
Pa	Native cherry	*Prunus avium*	14 -16cm girth standard
Qr	Oak	*Quercus robur*	16 – 18cm girth, standard
Sa	White willow	*Salix alba*	18 - 20cm girth standard
Sc	Goat willow	*Salix caprea*	10 – 12cm standard or feathered tree
Sf	Crack willow	*Salix fragilis*	18- 20cm girth standard

Red indicates semi-mature stock

EH3, W3, NP1 Habitat reference nos.

ON BEHALF
STATERA

PROJECT
EAST CLAYDON BESS

DATE	24 November 2023
SCALE	1 : 1,000 @ A1
DWG No	SL261__L__X__PP__1
APPROVED	CMcD

TITLE
PLANTING PLAN
SHEET 1 OF 2

Footbridge crossing over ditch SD_19

Kissing gate with waymarker post see SD_17 and SD_18

Stock fence SD_21

FIELD 3

FIELD 4

FIELD 2

KG

WILDLIFE PONDS & SCRUB

NP6

Scrub

WILDFLOWER GRASSLAND

Flood Zone 2

Flood Zone 3

Proposed attenuation pond

Beetle bank

Compound 2

SBH 5

SBH 6

SBH7

SBH4

SBH8

SBH9

HHP4

HHP5

WT

GATE

Existing farm track made good to form a second access for emergency vehicles only (not for construction)

Biodiverse roof on inverter building See SD_9

Beetle Bank

NP1

NP5

ORCHARD

1.22m RH

1.5m post and wire fence to allow the grassland to be protected during the nesting season for the ground nesting birds/ Public access allowed at other times. See SD_21

Kissing gate to allow permisssive access outside of the bird nesting season

Kissing gate and field gate across existing field access with waymarker post see SD_17 and SD_18

Permissive footpath link to existing PRoW

Stock Fence SD_21

SHEET 1

SHEET 2

N

0 10 20 50 100m

SCALE 1:1,000

Landscape design produced in collaboration with Future Nature, the consultancy arm of the

Berkshire Buckinghamshire & Oxfordshire Wildlife Trust

Refer to the East Claydon BESS Landscape Specification Document for full planting details and the Landscape and Ecological Management Plan for its ongoing management.

Revision	Date	Comment

STATERA
BALANCING THE GRID

Legend

SD refers to a Standard Detail Drawing number

- Site boundary
- Existing trees
- Existing hedgerows
- Proposed native broadleaved woodland
- New native scrub planting
- Hibernacula/habitat piles
- New substation compound
- 2.5m high security fencing SD_3 (SD_4 to substation)
- Crushed stone access track SD_15
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- Loose permeable gravel SD_15
- Wildflower grassland
- Retained grassland
- Enhanced wet meadow
- Standing piles/deadwood
- Wildlife pond
- Proposed hedgerow planting
- Public Right of Way
- Proposed tree
- Proposed orchard tree
- KG Kissing gate SD_17
- Flood zone 2
- Flood zone 3
- Source of water for irrigation trees during periods of inadequate rainfall
- 4m high infrared CCTV pole SD_11
- Footbridge SD_19
- 1.5m high post and wire stock fence SD_21
- Permissive access to nature reserve area for the operational life of the facility
- Temporary construction haul road and contractors compound
- Indicative drainage channel
- Inverter building with biodiverse roof total 37) SD_9
- Transformer (total 74) SD_5
- Battery container (total 888) SD_6
- Storage container SD_7
- Control room (total 7) SD_13
- WT Water tank (total 5) SD_12

Symbol	English Name	Latin Name	Size
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Pn	Black Polpar	*Populus nigra*	0.9 – 1.2m whip
Pt	Aspen	*Populus tremula*	18-20cm girth, standard
Pa	Native cherry	*Prunus avium*	14 -16cm girth standard
Qr	Oak	*Quercus robur*	16 – 18cm girth, standard
Sa	White willow	*Salix alba*	18 - 20cm girth standard
Sc	Goat willow	*Salix caprea*	10 – 12cm standard or feathered tree
Sf	Crack willow	*Salix fragilis*	18- 20cm girth standard

Red indicates semi - mature stock

EH3, W3, NP1 Habitat reference nos.

ON BEHALF
STATERA

PROJECT
EAST CLAYDON BESS

DATE	24 November 2023
SCALE	1 : 1,000 @ A1
DWG No	SL261__L__X__PP__2
APPROVED	CMcD

TITLE
PLANTING PLAN
SHEET 2 OF 2

EAST CLAYDON ROAD

New bell mouth, inset fencing and gate to be retainned. Hedge planting is to be undertaken on the road side of the inset fencing.
The hedging shall comprise:

30%	*Acer campestre*	(Field Maple)
25%	*Crataegus monogyna*	(Hawthorn)
15 %	*Corylus avellana*	(Hazel)
25%	*Prunus spinosa*	(Blackthorn)

Plants to be 600mm - 800mm high transplants planted at 400mm centres in two staggered rows 750mm apart. Transplants to be protected with green, biodegradable tree shelters such as Tubex Easi Wrap Shelters secured with a cane or similar for approval. A 1.5m strip centred on the hedge is to be covered in bark mulch to a depth of 75mm. A 1.5kg sample of the mulch is to be approved by the supervising landscape architect before delivery to site.

Gate

Mats forming the temporary road construction are to be lifted, loaded and removed from site. The farmer will make good compaction by ploughing and returning the land to agriculture

Bridge and concrete foundations to be removed, compaction releived and voids backfilled with topsoil previously stripped from the site. Topsoil to be cultivated to a fine tilth and seeded with Emorsgate EM4 Meadow Mixture for clay soils at a rate of 4g/square metre.

EAST CLAYDON SUBSTATION

Electricity Distribution Site

Land for the underground electricity cable connection

The gap in the hedge is to be replanted with
30% *Acer campestre* (Field Maple)
25% *Crataegus monogyna* (Hawthorn)
15 % *Corylus avellana* (Hazel)
25% *Prunus spinosa* (Blackthorn)
Plants to be 600mm - 800mm high transplants planted at 400mm centres in two staggered rows 750mm apart. Stock proof fences to be erected eitheside of the hedge line and tied into existing fences/hedge. Transplants to be protected with green, biodegradable tree shelters such as Tubex Easi Wrap Shelters secured with a cane or similar for approval. The strip between the fences is to be covered in bark mulch to a depth of 75mm. A 1.5kg sample of the mulch is to be approved by the supervising landscape architect before delivery to site.

Bridge and concrete foundations to be removed, compaction releived and voids backfilled with topsoil previously stripped from the site. Topsoil to be cultivated to a fine tilth and seeded with Emorsgate EM4 Meadow Mixture for clay soils at a rate of 4g/square metre.

Existing public footpath

EAST CLAYDON ROAD
CS
Def
87.4m
87.9m
FB
CS
Track
Def
CS
Ward Bdy
Claydon Brook
Drain
Footbridge
Path (un)
Ward Bdy
CS
Pond

N
0 25 50 100m
SCALE 1:1,250

THE MAIN SITE

STATERA
BALANCING THE GRID

Legend

Site boundary

Revision	Date	Comment

ON BEHALF
STATERA

PROJECT
EAST CLAYDON BESS

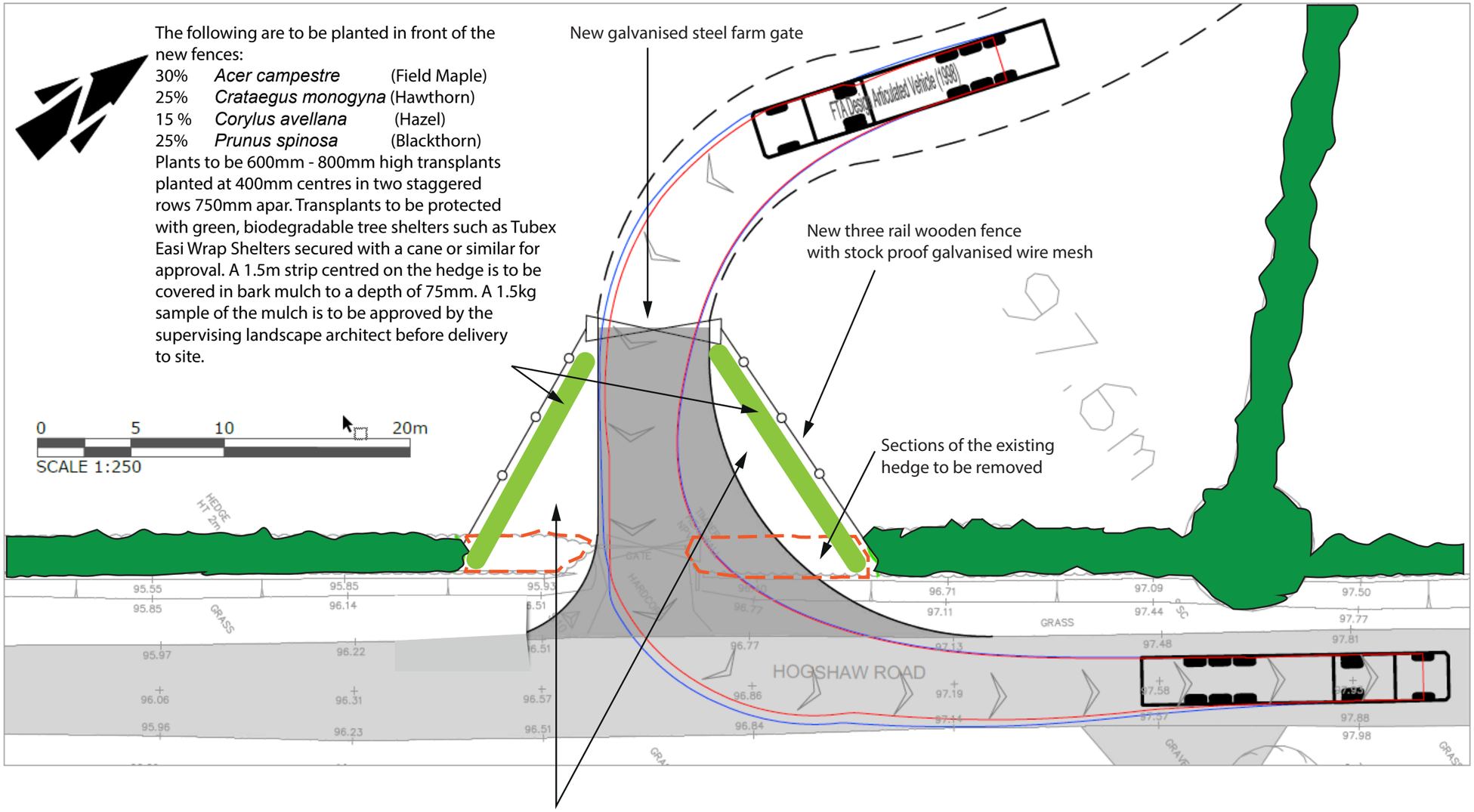
DATE 22.11.23
SCALE 1:1250 @ A1
DWG No 502_PP_04
APPROVED

TITLE
Remediation works along the route of the temporary haul road

The following are to be planted in front of the new fences:

30% *Acer campestre* (Field Maple)
25% *Crataegus monogyna* (Hawthorn)
15 % *Corylus avellana* (Hazel)
25% *Prunus spinosa* (Blackthorn)

Plants to be 600mm - 800mm high transplants planted at 400mm centres in two staggered rows 750mm apar. Transplants to be protected with green, biodegradable tree shelters such as Tubex Easi Wrap Shelters secured with a cane or similar for approval. A 1.5m strip centred on the hedge is to be covered in bark mulch to a depth of 75mm. A 1.5kg sample of the mulch is to be approved by the supervising landscape architect before delivery to site.



Verges to be made good by seeding with Emorsgate EM4 wildflower mix at a rate of 4/gm2(or other supplier to approval)

STATERA
BALANCING THE GRID

Date: 29.12.21
Scale: 1:250
DWG No: 502_PP_05

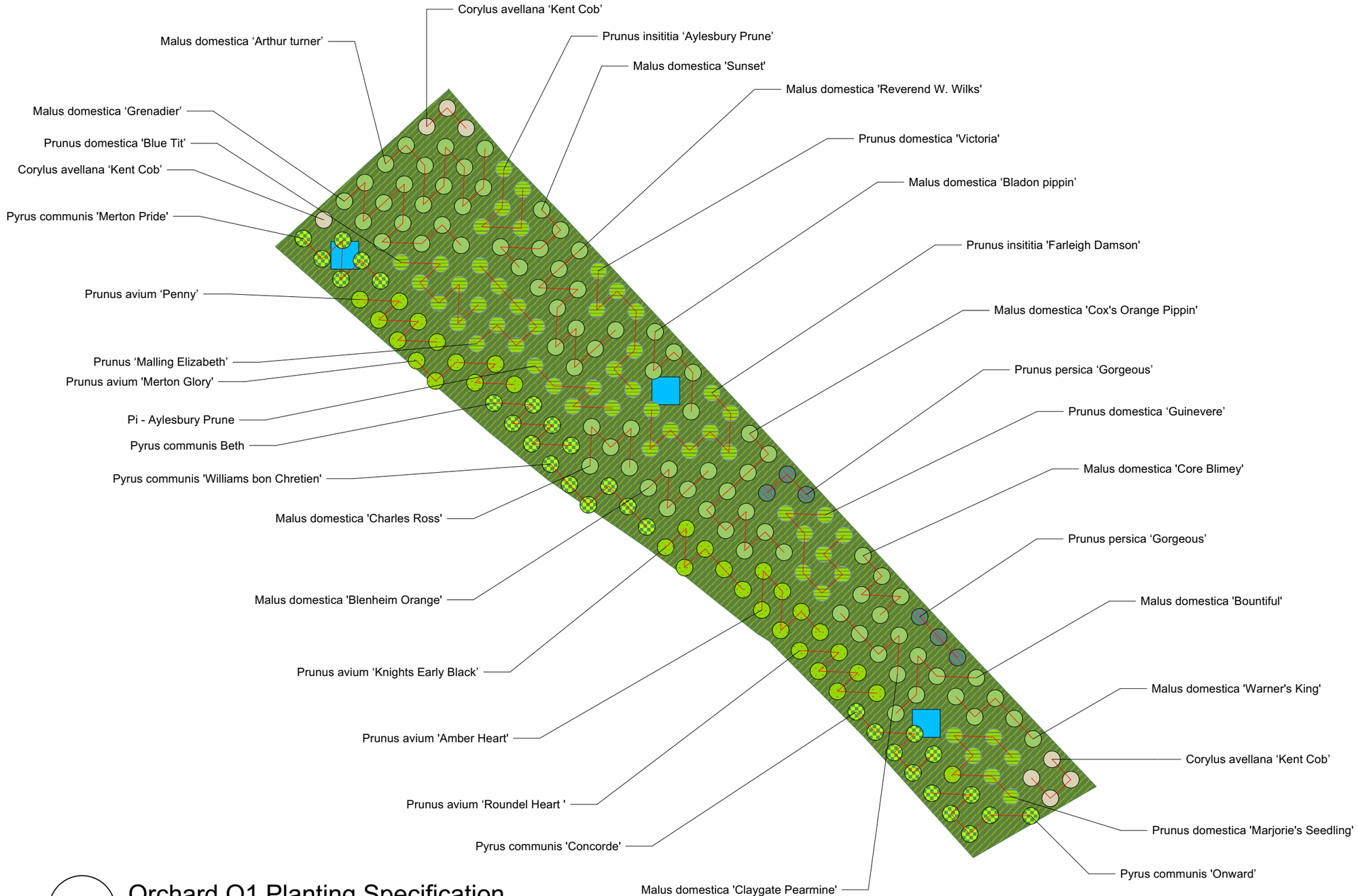
Revision	Date	Comment

0 5 10 15 20 25 M

Client: Statera
Project: East Claydon BESS
Title: Hogshaw Rd Access Planting Plan

Key

- Apple
- Plum/Damson
- Pear
- Cherry
- Peach
- Hazel
- Standing/piles of deadwood
- Species groups



1 **Orchard O1 Planting Specification**
Scale: 1:750

0 50 150 M

N

Rev:	Date:	By:	Description:

Project: East Claydon Battery Storage Facility

Drawing title: Orchard planting plan

Drawing no: MP23042-11		
Date: 09/10/2023	By: JF	
Rev:	Scale: 1:750 at A3	

Client: Future Nature

MORTON:PATTISON
ecological design & build landscape