KEY

Site boundary

Existing trees and vegetation to be retained

Existing trees and vegetation to be removed

Soft Landscape Proposals
Refer to plant schedule for details.

Grasscrete access route
Grasscrete reinforced surfacing to provide a maintenance access route to the pond areas, supplied by Grasscrete or similar approved.

PLANT SCHEDULE

PROPOSED TREES

ABBR	SPECIES	COMMON NAME	SUPPLY	HEIGHT (CM)	GIRTH	QTY (No.)
ACECAM	Acer campestre	Common Maple	HStd	300–400cm	12–14cm	9 –
BETPE	Betula pendula	Common Silver Birch	Multi-stem	200–250cm		6 –
BEPE	Betula pendula	Common Silver Birch	Std	250–350cm	10–12cm	3 –
CARBET	Carpinus betulus	Common Hornbeam	HStd	300–400cm	12–14cm	12 –
CARBETFF	Carpinus betulus 'Frans Fontaine'	Hornbeam 'Frans Fontaine'	EHStd	350–425cm	14–16cm	5 –
SORAU	Sorbus aucuparia	European mountain ash	Std	250–350cm	10–12cm	3 –
					Total :	38 –

PROPOSED HEDGEROWS

ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	QTY (No.)
ESCIV	Escallonia 'Iveyi'	5L	40–60cm	Bushy	0.4Ctr	628 –

PROPOSED ORNAMENTAL SHRUB MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	MIX DENSITY (M²)	QTY (No.)
LOW MIX 5L	CEATHR	Ceanothus thyrsiflorus repens	5L	30–40cm	Bushy	0.6Ctr		15 –
LOW MIX 5L	EUOFOEG	Euonymus fortunei 'Emerald Gaiety'	5L	30–40cm	Bushy	0.6Ctr		15 –
LOW MIX 5L	HEBPIS	Hebe pinguifolia 'Sutherlandii'	5L	30–40cm	Bushy	0.6Ctr		15 –
LOW MIX 5L	LONNMG	Lonicera nitida 'May Green'	5L	40–60cm	Bushy	0.6Ctr		15 –

PROPOSED NATIVE MIXED HEDGEROWS / INFILL MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	CENTRES (M)		MIX %	QTY (No.)
NATIVE HEDGEROW MIX E	ACECAM	Acer campestre	TT+1	80–100cm	0.3Ctr	Double Staggered at 0.25m offset 10%	22 –	
NATIVE HEDGEROW MIX E	CORAV	Corylus avellana	TT+1	80–100cm	0.3Ctr	Double Staggered at 0.25m offset 15%	32 –	
NATIVE HEDGEROW MIX E	CRAMON	Crataegus monogyna 2xFthd		125–150cm	0.3Ctr	Double Staggered at 0.25m offset 60%	127 –	
NATIVE HEDGEROW MIX E	ILEAQ	Ilex aquifolium	2L	80–100cm	0.3Ctr	Double Staggered at 0.25m offset 10%	22 –	
NATIVE HEDGEROW MIX E	ROSCA	Rosa canina	TT+1	80–100cm	0.3Ctr	Double Staggered at 0.25m offset 5%	11 –	

PROPOSED NATIVE SHRUB MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	MIX %	QTY (No.)
NATIVE SHRUB MIX A	CORAV	Corylus avellana	TT+1	60–80cm	Transplant	1Ctr	20%	155 –
NATIVE SHRUB MIX A	CRAMON	Crataegus monogyna	TT+1	60–80cm	Transplant	1Ctr	35%	271 –
NATIVE SHRUB MIX A	ILEAQ	Ilex aquifolium	2L	60–80cm	Bushy	1Ctr	15%	117 –
NATIVE SHRUB MIX A	PRUSP	Prunus spinosa	TT+1	60–80cm	Transplant	1Ctr	15%	117 –
NATIVE SHRUB MIX A	ROSCA	Rosa canina	TT+1	60–80cm	Transplant	1Ctr	5%	39 –
NATIVE SHRUB MIX A	VIBOP	Viburnum opulus	TT+1	60–80cm	Transplant	1Ctr	10%	78 –

PROPOSED SEMI-ORNAMENTAL MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	MIX %	QTY (No.)
GRD COV SEMI ORN MIX A	CEAREPA	Ceanothus thyrsiflorus repens	3L	20–30cm	Bushy	0.7Ctr	20%	23 –
GRD COV SEMI ORN MIX A	CORDWAA	Cornus stolonifera 'Kelseyi'	3L	20–30cm	Bushy	0.7Ctr	20%	23 –
GRD COV SEMI ORN MIX A	PACTE	Pachysandra terminalis	3L	20–30cm	Bushy	0.7Ctr	20%	23 –
GRD COV SEMI ORN MIX A	RUBBA	Rubus 'Betty Ashburner'	3L	20–30cm	Bushy	0.7Ctr	20%	23 –
GRD COV SEMI ORN MIX A	VINMI	Vinca minor	3L	20–30cm	Bushy	0.7Ctr	20%	23 –
SEMI ORN MIX G	CORALE	Cornus alba 'Elegantissima'	3L	40–60cm	Branched	0.7Ctr	25%	34 –
SEMI ORN MIX G	CORALS	Cornus alba 'Sibirica'	3L	60–80cm	Branched	0.7Ctr	25%	34 –
SEMI ORN MIX G	CORSAMF	Cornus sanguinea 'Midwinter Fire'	3L	40–60cm	Branched	0.7Ctr	25%	34 –
SEMI ORN MIX G	CORSTF	Cornus stolonifera 'Flaviramea'	3L	60–80cm	Branched	0.7Ctr	25%	34 –

PROPOSED BULBS

MIX NAME	ABBR	SPECIES	COMMON NAME	HABIT	CENTRES (M)	MIX %	AREA	QTY (No.)
BULB MIX A	CROCY	Crocus 'Golden Yellow'.	Dutch Crocus	Bulb	10/m²	16.6%	14.8316m²	149 –
BULB MIX A	CROJDA	Crocus 'Jeanne D' Arc'	Dutch Crocus	Bulb	10/m²	16.6%	14.8316m²	149 –
BULB MIX A	CROQB	Crocus 'Queen of the Blues'	Dutch Crocus	Bulb	10/m²	16.8%	15.0103m²	152 –
BULB MIX A	NARCA	Narcissus 'Canaliculatus'	Dwarf Daffodils	Bulb	10/m²	16.8%	15.0103m²	152 –
BULB MIX A	NARFG	Narcissus 'February Gold'	Dwarf Daffodil	Bulb	10/m²	16.6%	14.8316m²	149 –
BULB MIX A	NARJF	Narcissus 'Jet Fire'	Dwarf Daffodil	Bulb	10/m²	16.6%	14.8316m²	149 –
						Total:	89.347m²	

PROPOSED AMENITY SEED MIX (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
A22 (Low Maintenance) Amenity Germinal GB Limited		4363.7554m²	50g/m²

PROPOSED WILDFLOWER MEADOW (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
EM3 – Special Gen. Purpose Meadow Emorsgate Seeds		295.3589m²	50g/m²

PROPOSED POND EDGE MIXTURE (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
EP1 Pond Edge Mixture Emorsgate Seeds		2112.1002m²	0.4g/m²

NOTES

All trees, feature shrubs, climbers, shrubs and hedgerows to be planted in accordance with the implementation and maintenance guidelines. All landscape proposals must be referred to by the Structural Engineer during foundation design. No tree, feature shrub, climber, shrub and hedgerow species, size or location should be altered without prior approval from the Landscape Architect.

- Individual shrub/herbaceous/grass species to be planted in groups of 3-7.
- Individual species within ornamental shrub mixes to be planted in groups of 5-9.
- Lower growing species within ornamental shrub mixes to be planted at the front of the shrub bed (as indicated).
- Individual bulbs species to alternate every 2 linear metres.
- Bulbs to be planted within a 60cm wide bed and mulched unless stated.
- Hedgerow shrubs to be planted within a 80cm wide bed and mulched.
- Any native hedgerow shrubs to be planted on a double staggered row, 250mm apart with no less than 6 per linear metre within a 30cm wide bed in accordance with implementation and maintenance guidelines. Any native hedgerow shrubs to be planted on a single staggered row, 250mm apart with no less than 3 per linear metre within a 30cm wide bed in accordance with implementation and maintenance guidelines. Where stock is proposed, shrubs are to be attached to a double line support line for feathered stock at 1m high and one for transplant stock at 60cm high) fence using an approved clip tie and cut back to 1.2m in height at time of planting.
- Trees to be Extra Heavy Standard from certified local provenance plant stock.
- Seeding operations to be carried out in accordance with the implementation and maintenance guidelines.
- All planting to be in accordance with the implementation and maintenance guidelines.
- No species, variety, size or position to be amended without the Landscape Architects prior approval.
- Before trees are planted, the Landscape Contractor shall ascertain the location of drains from the site manager, and shall, if necessary make minor adjustments to tree positions to ensure that no tree is planted within 3m of a drain. Where proposed trees are located closer to houses/garages than is shown on the drawing, and if shown located in shrub beds, the shape of the latter should be adjusted if necessary to accommodate the revised tree position.
- All planting must be mulched in accordance with the implementation and maintenance guidelines.
- If planting is implemented outside the October-March season, bare root shrubs will be replaced by 3L pot grown plants, and trees will be replaced by a containerised equivalent to be approved by the project landscape architect.

IMPLEMENTATION AND MAINTENANCE GUIDELINES

1.0 GENERAL

All plants shall conform to BS 3936 and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the HTA Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Planting shall not be carried out when the ground is waterlogged, frozen or during periods of drought or high winds. All bare rooted trees shall be dipped in an approved water-retaining polymer. Tree planting implementation and maintenance to conform to BS 8545:2014 Trees: From Nursery to Independence in the Landscape'.

If the formation level is compacted it should be ripped through before topsoiling.
Topsoil depths to be 600mm for shrub beds and 150mm for grass areas.

2.0 ORNAMENTAL SHRUBS AND TREES

2.1 Ground Preparation
Where necessary treat existing weeds with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer to kill the weeds. Dig over the proposed planting areas to a depth of 300mm and fork in 50mm of Forest Mulching Compost at the rate of 200m3/m2 are to be incorporated into the top 150mm of topsoil during final cultivations. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.

Tree pits are to be excavated and the base broken up a further 150mm with the sides well scarified to prevent smearing. All trees shall be planted centrally in the pit and set so that the root collar is level with the surrounding ground. Trees supplied container grown and trees over heavy standard size shall be double staked. Any feature trees semi mature in size to be secured with a below ground anchoring system (such as a deadman anchor). Stakes should be driven 500mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables etc.

2.2 Planting
All trees and hedges are to be set out as shown on the drawing and pit planted into the prepared soil at the specified centres with minimal disturbance to the rootball and well firmed in.

Trees are to be placed into the pits and backfilled with topsoil incorporating slow release fertiliser and Tree Planting and Mulching Compost as specified. Firm trees in well and secure with proprietary rubber tree ties and spacers.

Water in all trees and shrubs at the end of each day of planting.

Spread ornamental pine bark mulch to a depth of 75mm across all new planting areas,ensuring groundcover plants are not buried.

2.3 Maintenance
The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.

The area is to be visited monthly throughout the year to undertake the following operations:
Weed clearance: All planting areas are to be kept weed free by hand weeding or herbicide treatment.
Litter clearance: All litter is to be removed from planting beds.
Watering: Planting areas are to be brought up to field capacity at each visit and each tree is to receive 20 gallons.
Mulching: Bark mulch to shrub areas are to be checked and adjusted if too loose, too tight or if shuffling is occurring. Any broken stakes are to be replaced.
Formative pruning: Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens.

3.0 NATIVE SHRUB PLANTING

3.1. Ground Preparation
The extent of the planting area shall be set out using 38x38x1200mm timber stakes at each change in direction and at a maximum of 50m intervals.

Either : for notch planting
All herbaceous material within the proposed planting area shall be sprayed out using an approved herbicide at least two weeks before planting and the ground shall be cultivated to a depth of 150mm.
Or : for pit planting
A 500mm diameter circle shall be sprayed out at each planting station using an approved herbicide at least two weeks before planting.

3.2 Planting
All bare rooted stock is to be root dipped in water retaining polymer. Proposed planting is to be planted on an informal grid. To avoid straight lines each planting station can be moved by up to 300mm in any direction.

Either a for shelters or b for rabbit fence
a. All stock to be protected from rabbit damage using approved proprietary tree and shrub shelters, 900mm and 600mm high respectively, secured with stakes and ties as advised by the manufacturer.
b. All stock to be protected from rabbit damage by 900mm high rabbit fencing erected in accordance with the manufacturer's recommendations.

3.3 Maintenance
Using approved herbicides a 900mm diameter circle centered on each planting station shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these during the following planting season.

4.0 NATIVE HEDGE PLANTING

4.1 Setting Out
The hedge line shall be set out using 38x38x1200 stakes at maximum 50m intervals and all herbaceous material within ±50mm of the centre line shall be sprayed out using an approved herbicide at least two weeks before planting.

4.2 Preparation
The 800mm wide hedge line shall be cultivated to 150mm incorporating Enmag or equal at 75gm/m2.

4.3 Planting
Plants shall be notch planted in two rows 250mm apart and staggered at 300mm centres.All plants are to be protected with a 600mm proprietary shelter secured with a stake/cane and ties as recommended by the manufacturer.

4.4 Maintenance
Using approved herbicides a 800mm wide swathe centred on the hedgeline shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these during the following planting season.

5.0 GRASS

5.1 Preparation
The area to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm removing all weeds, debris and stones over 25mm diameter. The surface shall be raked to smooth flowing contours with a fine tilth, incorporating pre-seeding fertiliser at 70 g/m2.

5.2 Turf
Turfing operations shall be in accordance with BS 4428.

Whole turves shall be laid around the perimeter of the area to be turfed. The central area shall be laid in rows with staggered joints, well butted together, working from planks positioned on turves already laid. The turf shall be watered on completion. Any unevenness shall be made good by lifting the turf and adjusting the levels. Should shrinkage occur, fine topsoil shall be brushed into the joints.

5.3 Seeding
Grass seed shall be sown in April during calm weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at a rate of 35 g/m2, according to supplier's recommendations. After sowing the contractor shall roll the seed into intimate contact with the soil. All seed mixes to be specified in accordance with those set out in the approved management plan.

5.4 Initial cut
When newly seeded areas reach 150mm they should be cut back to a height of 30mm and then cut twice annually in early Spring and late Summer. All arisings shall be removed or spread evenly across grassland. Any bare patches shall be made good at this time.

6.0 TOPSOIL

6.1 Existing Topsoil
Pre-planting herbicide application -
Apply by suitable spraying apparatus, an approved translocated systemic herbicide to the manufacturer's instructions and to the following dosage rates. Spraying operations shall be carried out in calm weather and not when the ground is frost bound or are to receive agricultural sheet mulch. Spray immediately if any weeds are present. If none are showing, but there may be a delay before planting, or the area is to be seeded, spray after one month following cultivation, to allow dormant seed to germinate. Only persons who have been trained in the safe use of herbicides using protective clothing, in suitable weather (no wind) and any equipment in good working order, from incorrect usage or spillage, should be certified at the contractor's own cost. Repeat as necessary to ensure complete kill and take off all dead material from site.

Carry out the following works to the existing topsoil on site to ensure it Conforms to BS 3882:2015, being free from rocks larger than 50mm in any dimension, and other deleterious material. Cultivate to a depth of 300mm. Remove all weeds as above. Fertilize with 100g per metre square of Vitax "Nutricote 180" slow release fertilizer, in accordance with the manufacturer's instructions. For beds less than 5 metres in width, fork over thoroughly or machine rotavate soil to a depth of 300mm, ensuring that the fertilizer is thoroughly incorporated into the soil. Cultivate adjacent to existing trees and for beds greater than 5 metres in width, break up the subgrade and topsoil using a tractor mounted subsoiler or ripper at 500mm centres to a depth of 500mm, except where there are services, or within 10 metres of tree stems or 3 metres of existing hedges. Do not rip areas where roots greater than 10mm diameter are encountered.

6.2 Imported Topsoil
Any imported topsoil for making up ground, shall conform to BS:3882:2015, and be free from roots (over 50mm diameter), concrete, rocks, wire and brick, and have less 20% clay.

7.0 WILDFLOWER AND GRASSLAND MIX

7.1 Preparation
Grass seed mixtures to be sourced from certified local provenance seed stock. Ground surface will be cleared of weed growth either removed by hand or through the application of an approved Glyphosate based herbicide (all herbicides should only be handled by certified users and in accordance with the COSHH Regulations 2002). The ground will then be ploughed and raked to produce a medium tilth with debris and stones over 25mm diameter reserved. The surface shall be raked to smooth flowing contours with a fine to medium tilth.

7.2 Seeding
Wildflower and wildflower seed mixes shall be sown in either August -September or March -April during calm weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at a rate of 5 g/m2, according to supplier's recommendations. After sowing the contractor shall roll the seed into intimate contact with the soil with a ribbed Cambridge roller.

7.3 First year maintenance
All litter should be removed from areas prior to mowing. The following procedures should not be undertaken in adverse weather conditions or if ground conditions present the use of machinery without damage to the ground. Cut to 50mm and remove clippings in the first year of establishment to encourage basal growth and reduce weed competition. All arisings shall be removed or deposited in an area designated by the Contracts Manager. Any bare patches shall be made good at this time.

7.4 Second and subsequent year maintenance
Management of subsequent years comprises a single Autumn cut in September or October to allow plants to set seed. Arisings shall be left for a minimum of 24 hours and a maximum of 7 days before being removed or relocated to an area identified by the Contracts Manager.

DESIGN ENVIRONMENT PLANNING ECONOMICS HERITAGE

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NORTH

Severn Road, Avonmouth

2 Unit Scheme - Soft Landscape Proposals

Drawing Ref: **P21-0355_03**
Client: **BRITISH AIRWAYS PENSION TRUSTEES LTD**

Date : 16/08/2021
Drawn by : EW
Checked by : EW
Scale : 1 : 500 @ A0

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