

FORD ENERGY RECOVERY FACILITY AND
WASTE SORTING AND TRANSFER FACILITY,
FORD CIRCULAR TECHNOLOGY PARK



LANDSCAPE IMPLEMENTATION
AND MANAGEMENT PLAN

Ford Energy Recovery Facility and Waste Sorting and Transfer Facility

FORD CIRCULAR TECHNOLOGY PARK

LANDSCAPE IMPLEMENTATION AND MANAGEMENT PLAN

March 2021



Well House Barns
Chester Road
Bretton
Chester
CH4 0DH

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DRAWINGS

- 2829-01-001: Landscape Design
- 2829-01-002: Typical Planting Details
- 2829-01-003: Tree Species & Densities

APPENDICES

- Appendix 1: Indicative Management Schedules

1.0 INTRODUCTION

- 1.1 This document, together with the accompanying drawing, has been prepared to support the planning application for the Proposed Development.
- 1.2 Indicative management schedules for the first five years of the scheme are included in Appendix 1. These are intended as a guide for the activities required, rather than to be a prescriptive timetable of management operations.

2.0 THE PROPOSALS

- 2.1 The landscape design proposals are illustrated on Drawing 2829-01-001. Indicative planting specifications and implementation specifications are set out on Drawings 2829-01-002 and 2829-01-003.
- 2.2 The overall objectives for the proposals are to assist the integration of the Proposed Development into its surroundings; to provide an attractive entrance to the facility; and to enhance the biodiversity value of the Site.
- 2.3 The northern perimeter proposes a wide strip of wildflower grass, with two areas of meadow grass on the west and east corners with mature tree planting. The eastern, northern and western slopes of the proposed bund are shown as native woodland planting, with areas of feathered stock on the 8m terraces. A native hedgerow will wrap around the bottom of the bund, with patches of scrub behind the hedgerow. These areas will sit within the security fence but outside of proposed acoustic fencing, which will be located on top of the bund, and will present a naturalistic edge to the facility. Hedgerow and woodland planting will be under sown with a low vigour grass sward mix to stabilise the slope, reduce competition for trees to establish and give an attractive appearance until the woodland canopy closes.
- 2.4 The entrance to the site will have two areas of meadow grass with mature specimen trees, where space allows.
- 2.5 The wildflower grass will be sown on top of the crushed concrete (preferably from concrete broken up from the existing site). The bund construction is yet to be finalised but is anticipated to comprise of subsoil or other suitable inert fill material and top dressed with imported top soil for areas of proposed woodland and hedgerow planting. Where wildflower grass is to be sown, crushed aggregate will form the substrate with no import of soil. The patches of scrub will be planted into subsoil, to promote a biodiverse plant assemblage.
- 2.6 Areas of proposed meadow grass will be sown into site-won subsoil; if there is insufficient site-won material, subsoil to BS 8601:2013 'multipurpose' grade will be imported.
- 2.7 Further areas of meadow grass will be created within a strip of land between the security fence and acoustic fence along the southern boundary and inside the site entrance. Where there is sufficient space, specimen oak and ornamental pear trees

will also be planted within this strip. Tree pits within the meadow grass areas will be backfilled with imported topsoil to BS 3882:2015 'multipurpose' grade and compost to PAS 100 as required.

3.0 TIMESCALE

- 3.1 Planting is scheduled to take place in phase 3 of construction, with phase 4 to follow. Planting will be undertaken during the planting season (typically November to March).
- 3.2 The timing of sowing of seed mixes shall accord with the supplier's instructions (typically in spring or autumn).

4.0 PLANTING/ SEEDING SPECIFICATION

4.1 The specification for planting and seeding is set out below. Refer to Drawing 2829-01-001 and 2829-01-003 for locations and quantities.

Specimen Trees		
Species	Common name	Specification
<i>Pyrus calleryana</i> 'Chanticleer'	Callery Pear	Semi-mature tree. RB. Girth 20-25cm. Height min. 450cm. Clear stem min. 200cm. 3x/4x
<i>Quercus robur</i> 'Koster'	Fastigate Oak	Semi-mature tree. RB. Girth 20-25cm. Height min 450cm. Clear stem min. 200cm. 5x
<i>Quercus robur</i>	Oak	Heavy Standard RB. Girth 12-14cm. Height min. 350cm. Clear stem min. 175cm. 3x

Visual Screening Woodland Mix			
Species	Common name	Specification	%
<i>Alnus glutinosa</i>	Alder	2.0-2.5m, 6-8, Feather: B	30
<i>Betula pendula</i>	Birch	2.0-2.5m, 6-8, Feather: B	15
<i>Corylus avellana</i>	Hazel	175-200cm, 6-8, Feather: B	30
<i>Populus tremula</i>	Aspen	2.0-2.5m, 6-8, Feather: B	15
<i>Salix fragilis</i>	Crack willow	2.0-2.5m, 6-8, Feather: B	10
All planting to be native stock of certified local provenance (seed zone 401), subject to availability			

Woodland Mix			
Species	Common name	Specification	%
<i>Acer campestre</i>	Field Maple	40-60cm 1+1: Transplant: B	10
<i>Alnus glutinosa</i>	Alder	40-60cm 1+1: Transplant: B	10
<i>Betula pendula</i>	Birch	40-60cm 1+1: Transplant: B	10
<i>Carpinus betulus</i>	Hornbeam	40-60cm 1+1: Transplant: B	5
<i>Cornus sanguinea</i>	Common dogwood	40-60cm 1+1: Transplant: B	5
<i>Corylus avellana</i>	Hazel	40-60cm 1+1: Transplant: B	5
<i>Crataegus monogyna</i>	Hawthorn	40-60cm 1+1: Transplant: B	12
<i>Malus sylvestris</i>	Crab apple	40-60cm 1+1: Transplant: B	5
<i>Populus tremula</i>	Aspen	40-60cm 1+1: Transplant: B	10
<i>Prunus spinosa</i>	Blackthorn	40-60cm 1+1: Transplant: B	5
<i>Quercus robur</i>	Rowan	40-60cm 1+1: Transplant: B	10
<i>Rosa canina</i>	Dog Rose	40-60cm 1+1: Transplant: B	3
<i>Sorbus aucuparia</i>	Guelder-rose	40-60cm 1+1: Transplant: B	10
All planting to be native stock of certified local provenance (seed zone 401), subject to availability			

Native Scrub Mix			
Species	Common name	Specification	%
<i>Euonymus europaeus</i>	Spindle Tree	40-60cm 1+1: Transplant: B	20
<i>Prunus spinosa</i>	Blackthorn	40-60cm 1+1: Transplant: B	20
<i>Rosa canina</i>	Dog Rose	40-60cm 1+1: Transplant: B	5
<i>Rubus fruticosus</i>	Common Bramble	40-60cm 1+1: Transplant: B	5
<i>Sambucus nigra</i>	Elder	40-60cm 1+1: Transplant: B	15
<i>Viburnum lantana</i>	Wayfaring Tree	40-60cm 1+1: Transplant: B	20
<i>Viburnum opulus</i>	Guelder-rose	40-60cm 1+1: Transplant: B	15
All planting to be native stock of certified local provenance (seed zone 401), subject to availability			

Hedgerow Mix			
Species	Common name	Specification	%
<i>Corylus avellana</i>	Hazel	40-60cm 1+1: Transplant: B	15
<i>Crataegus monogyna</i>	Hawthorn	40-60cm 1+1: Transplant: B	65
<i>Malus sylvestris</i>	Crab apple	40-60cm 1+1: Transplant: B	5
<i>Prunus spinosa</i>	Blackthorn	40-60cm 1+1: Transplant: B	5
<i>Rosa canina</i>	Dog Rose	40-60cm 1+1: Transplant: B	5
<i>Viburnum opulus</i>	Guelder-rose	40-60cm 1+1: Transplant: B	5
All planting to be native stock of certified local provenance (seed zone 401), subject to availability			

Trailing Plants		
Species	Common name	Specification
<i>Hedera helix</i> ' <i>Variegata</i> '	Variegated Ivy	Several Shoots :C

Wildflower Grass		
BFS 14 – Brownfield Site by British Flora, or similar approved. Sown at 3g/m ²		
Wildflower species		
%	Latin name	Common name
6	<i>Centaurea cyanus</i>	Cornflower
1	<i>Centaureum erythraea</i>	Common centaury
8	<i>Centaurea nigra</i>	Black knapweed
5	<i>Daucus carota</i>	Wild carrot
2	<i>Echium vulgare</i>	Viper's bugloss
1	<i>Hieracium pilosella</i>	Mouse ear hawkweed

1	Hypericum perforatum	Common St John's Wort
2	Hypochaeris radicata	Common cat's ear
9	Leucanthemum vulgare	Oxeye Daisy
2	Linaria vulgaris	Common toadflax
4	Lotus corniculatus	Common bird's foot trefoil
7	Maticaria recutitia	Scented mayweed
8	Medicago lupulina	Black medick
3	Reseda luteola	Weld
5	Rumex acetosella	Sheep's sorrel
5	Silene alba	White campion
4	Silene vulgaris	Bladder campion
2	Trifolium arvense	Hare's foot clover
3	Trifolium pratense	Red clover
2	Vicia cracca	Tufted vetch
Wildflowers = 80% total by weight		
Grasses		
%	Latin name	Common name
15	Festuca ovina	Sheep's fescue
5	Festuca rubra spp. rubra	Red fescue
Grasses = 20% total by weight		

Meadow Grass		
EG1 – General Purpose Meadow by Emorsgate, or similar approved. Sown at 5g/m ²		
Grasses		
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
35	Cynosurus cristatus	Crested Dogstail
30	Festuca rubra	Slender=creeping Red-fescue
5	Phleum bertolonii	Smaller Cat's-tail
20	Poa pratensis	Smooth-stalked Meadow-grass

Grass Sward		
EH1 – Hedgerow Mixture by Emorsgate, or similar approved. Sown at 5g/m ²		
Wildflower species		
%	Latin name	Common name
1	Agrimonia eupatoria	Agrimony
0.6	Alliaria petiolata	Garlic Mustard
0.5	Arctium minus	Lesser Burdock

1	Barbarea vulgaris	Winter Cress
1	Centaurea nigra	Common Knapweed
2.2	Chaerophyllum temulum	Rough Chervil
1	Dipsacus fullonum	Wild Teasel
2	Galium album - (Galium mollugo)	Hedge Bedstraw
0.2	Geum urbanum	Wood Avens
0.4	Lathyrus sylvestris	Narrow-leaved Everlasting-pea
1.5	Leucanthemum vulgare	Oxeye Daisy - (Moon Daisy)
1	Pastinaca sativa	Wild Parsnip
0.3	Primula veris	Cowslip
1	Prunella vulgaris	Selfheal
0.3	Rumex acetosa	Common Sorrel
0.5	Saponaria officinalis	Soapwort
2.5	Silene dioica	Red Campion
1	Silene vulgaris	Bladder Campion
1.6	Torilis japonica	Upright Hedge-parsley
0.4	Verbascum thapsus	Great Mullein
Wildflowers = 20% total by weight		
Grasses		
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
2	Anthoxanthum odoratum	Sweet Vernal-grass (w)
7	Brachypodium sylvaticum	False Brome (w)
20	Cynosurus cristatus	Crested Dogstail
1	Deschampsia cespitosa	Tufted Hair-grass (w)
28	Festuca rubra	Slender-creeping Red-fescue
12	Poa nemoralis	Wood Meadow-grass
Grasses = 80% total by weight		

Marginal Seeding		
EP1 – Pond Edge by Emorsgate, or similar approved.		
Sown at 4g/m ²		
Wildflower species		
%	Latin name	Common name
0.1	Althaea officinalis	Marsh-mallow
2.5	Barbarea vulgaris	Winter Cress
0.1	Caltha palustris	Marsh Marigold
2.2	Centaurea nigra	Common Knapweed

0.1	Dipsacus pilosus	Small Teasel
0.8	Eupatorium cannabinum	Hemp Agrimony
1.5	Filipendula ulmaria	Meadowsweet
0.1	Geum rivale	Water Avens
5.5	Iris pseudacorus	Yellow Iris
1	Lycopus europaeus	Gypsywort
0.1	Lysimachia vulgaris	Yellow Loosestrife
0.7	Lythrum salicaria	Purple Loosestrife
2.4	Oenanthe pimpinelloides	Corky-fruited Water-dropwort
2.5	Prunella vulgaris	Selfheal
0.2	Pulicaria dysenterica	Common Fleabane
0.2	Thalictrum flavum	Common Meadow-rue
Wildflowers = 20% total by weight		
Grasses		
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
3	Alopecurus pratensis	Meadow Foxtail (w)
3	Anthoxanthum odoratum	Sweet Vernal-grass (w)
3	Briza media	Quaking Grass (w)
24	Cynosurus cristatus	Crested Dogstail
2	Deschampsia cespitosa	Tufted Hair-grass (w)
32	Festuca rubra	Slender-creeping Red-fescue
3	Hordeum secalinum	Meadow Barley (w)
Grasses = 80% total by weight		

5.0 IMPLEMENTATION

Soils: General

- 5.1 The Site comprises a series of existing buildings and areas of hardstanding, and natural soils are known not to be present in any quantity. As such, all soils (subsoil and topsoil) will need to be imported.
- 5.2 The proposed bund will require topsoil for the woodland planting areas and hedgerow. Areas of scrub, wildflower grass, marginal seeding and meadow grass will not require top soil.
- 5.3 Subsoil shall be a multipurpose subsoil in accord with the requirements of *BS8601:2013*. Ground preparation and subsoil spreading shall also accord with *BS8601:2013*.
- 5.4 Topsoil shall accord with the requirements of *BS3882:2015*. Unless otherwise stated below, topsoil shall be multi-purpose topsoil. Ground preparation and topsoil spreading shall also accord with *BS3882:2015*.
- 5.5 Imported compost shall conform to PAS 100.
- 5.6 The depth of soil to be spread in each planting/ seeding type is set out below.

Specimen Trees

- 5.7 All specimen trees shall be planted in prepared pits appropriate to size of specimen. All pits shall be backfilled with a well-mixed blend of 50% BS 3882 multipurpose grade topsoil and 50% PAS 100 compost. Trees shall receive controlled release fertilizer: Scotts Sierrablen Flora (15-9-9+3%MgO) or similar approved, 3 tablets per tree applied in accordance with manufacturer's instructions.
- 5.8 Trees shall each have perforated pipe watering systems installed around the top of the rootballs. Each tree shall be secured using an underground anchoring system (Green Blue Urban ArborGuy Drive-In Anchor, or similar).
- 5.9 The top surface of the whole tree pit shall be mulched with 75mm settled depth organic mulch following planting and watering to field capacity, in order to help retain moisture and reduce weed growth.

Woodland / Visual Screening Mix

- 5.10 A minimum of 450mm depth topsoil will be spread over the bund sub soil/ fill material, benched in. Woodland plants will be notch planted at 4m centres. Feathered stock will be planted into small tree pits and backfilled with topsoil and staked.
- 5.11 Plants will be planted in groups of 3-5 of same species. All plants shall be adequately staked and guarded (with either individual guards or a perimeter fence) to prevent damage from deer / rabbits / hares etc. All plants shall be fitted with a mulch mat (preferably 100% biodegradable to prevent competition from grass and weeds during establishment).
- 5.12 Areas around woodland planting will also be sown with the grass sward seed mix – see below.

Scrub

- 5.13 Scrub planting will be planted into suitable subsoil, lightly compacted providing a total planting medium depth of minimum 450mm.
- 5.14 Specimens shall be notch planted in single species groups of 3-5. All plants shall be adequately staked and guarded to prevent damage from deer / rabbits / hares etc.
- 5.15 Areas around scrub planting are also to be sown with the grass sward seed mix – see below.

Hedgerow

- 5.16 Hedgerows will be notch planted into a topsoil 1m wide x 450mm deep.
- 5.17 A post and wire fence below ultimate establishment height will be constructed through the middle of the hedge to prevent damage by unauthorised access during establishment. The fence shall be left in situ.
- 5.18 Hedge plants will be notch planted in a double staggered row at 400mm c/c (i.e. 5 plants /lin m). All plants shall be adequately staked and guarded (with either individual guards or a temporary perimeter fence) to prevent damage from deer / rabbits / hares etc.

Trailing Plants

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- 5.19 Plants will be planted into 500 x 500mm sized pockets (depending on retaining wall construction, a gabion construction has been assumed), lined with a semi-permeable geotextile, with a free draining layer 200mm deep to act as a water reserve and filled with 300mm depth of topsoil over a free draining base material. Plants shall be planted in such a way as to encourage trailing growth down the gabions.

Wildflower Grass

- 5.20 For wildflower grass areas, better development of a healthy and varied sward is achieved if a nutrient -poor substrate is used, rather than topsoil. Crushed aggregate substrate is proposed to be spread over existing or imported / manufactured subsoils to a depth of 300mm then graded to smooth flowing levels. It is intended that the use of crushed aggregate and subsoil, together with adjacent areas of meadow grass, hedgerow, etc will allow development of open mosaic habitat.
- 5.21 Seed shall be sown at a rate of 3g/m², in accordance with the supplier's instructions.

Meadow Grass

- 5.22 All meadow areas are to be sown onto suitable subsoil that has been cultivated such that there is a suitable tilth for seed sowing. Topsoil shall not be used. In such areas, either existing subsoils can be left exposed (where at natural ground level), or be supplemented as necessary by imported subsoil, laid to a minimum of 300mm. No pre-seeding fertiliser shall be spread.
- 5.23 Seed shall be sown at a rate of 5g/m², in accordance with the supplier's instructions.

Grass Sward

- 5.24 All grass sward areas shall be sown onto imported topsoil in woodland and native hedgerow planting areas. No pre-seeding fertiliser shall be spread.
- 5.25 Seed shall be sown at a rate of 5g/m², in accordance with the supplier's instructions.

Marginal Seeding

- 5.26 All areas of marginal seeding are to be sown onto suitable subsoil that has been cultivated such that there is a suitable tilth for seed sowing. Topsoil shall not be used. In such areas, existing subsoils can be left exposed (where at natural ground level), or be supplemented as necessary by imported subsoil, laid to a minimum of 300mm. No pre-seeding fertiliser shall be spread.

5.27 Seed shall be sown at a rate of 4g/m², in accordance with the supplier's instructions.

6.0 MANAGEMENT & MAINTENANCE

Specimen Trees

- 6.1 Specimen/ mature trees shall be watered regularly as part of establishment maintenance during at least the first two summers after planting. Any failures in the first 5 years shall be replaced with stock as originally specified. Mulch shall be maintained at 75mm depth and tree health monitored on a regular basis.
- 6.2 In subsequent years, maintenance shall consist of adjusting (and when appropriate, removing no later than the end of the 3rd season after planting) stakes and ties, and application of fertiliser: Scotts Sierrablen Flora (15-9-9+3%MgO) 3 tablets per tree, or similar approved every 2 years in Spring and routine checks on the health of the trees. In exceptionally dry conditions, supplementary watering shall be carried out.

Woodland and Visual Screening

- 6.3 Any plants that fail to establish, for any reason, within the first 5 years after planting, will be replaced with stock as originally specified.
- 6.4 Areas of woodland/ visual screening planting will be monitored in order to ensure that weed growth does not become dominant. Mulch mats shall be inspected and refixed/ replaced as required during the establishment period. Where weed growth becomes apparent a weed free status will be achieved through the use of an appropriate method(s) of the contractor's choosing e.g. selective targeted herbicide, or via hand pulling. Control by cutting is permitted but not within 500mm of tree stems.
- 6.5 Post-establishment (i.e. once the canopy has closed), removal of tree guards and canes no later than the 3rd season after planting. Management shall seek to encourage the ongoing diversity of the woodland plots in terms of species, age-range and structure. In the first five years post-implementation this is likely to comprise minimal intervention, subject to regular monitoring by the Operator's Ecologist/ Landscape Architect. From Year 5, opportunities for thinning and pruning shall be identified, and any such works shall subsequently be implemented. Arisings may be stacked within the site to create brash/ log piles, under the direction of the Ecologist.

Scrub

- 6.6 Any plants that fail to establish, for any reason, within the first 5 years after planting, will be replaced with stock as originally specified.

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- 6.7 Areas of scrub planting will be monitored in order to ensure that weed growth does not become dominant (within subsoil this should not be an issue) and so that the scrub planting becomes established. Where weed growth becomes apparent a weed free status will be achieved through the use of an appropriate method(s) of the contractor's choosing e.g. selective targeted herbicide, or via hand pulling only. No control by cutting is permitted.
- 6.8 Post-establishment (i.e. once the canopy has closed), removal of tree guards and canes no later than the 3rd season after planting. Management shall seek to encourage the ongoing diversity of the scrub plots in terms of species, age-range and structure. In the first five years post-implementation, this is likely to comprise minimal intervention, subject to regular monitoring by the Operator's Ecologist/ Landscape Architect. From Year 5, opportunities for thinning and coppicing shall be identified, and any such works shall subsequently be implemented. Arisings may be stacked within the site to create brash piles, under the direction of the Ecologist.

Hedgerow

- 6.9 Any planting that fails, for any reason, within the first 5 years after planting, will be replaced with stock as originally specified.
- 6.10 A weed free strip shall be maintained approximately 300mm wide along either side of the base of the hedge, until the canopy of the planting has sufficiently closed to reduce weed competition (approximately 3 years). This weed free zone will be achieved through the use of an appropriate method(s) of the contractor's choosing e.g. mulch mat or suitable herbicide, or via hand pulling. No control by cutting is permitted.
- 6.11 Following establishment, removal of tree guards and canes no later than the 3rd season after planting. Hedgerows shall be cut on one side every three years to maintain a dense bushy form, and cut back annually to a height of approximately 2m.

Trailing Plants

- 6.12 Trailing plants shall be monitored to ensure they become suitably established down the gabion walls. Minimal intervention is anticipated thereafter.

Wildflower Grass

- 6.13 Wildflower areas shall be cut twice in the first year after seeding (in late June and mid-August) to maintain a sward height of 100mm. Cutting is intended to remove competition from annual weeds and to prevent faster growing species developing at a rate that would restrict the growth of slower growing ones.
- 6.14 Following the initial establishment cuts in the first year, cuts in subsequent years shall take place 2 times per annum to a height of approximately 100mm. Cutting shall take place in the Spring after the first flush of growth to suppress annual weed growth and at the end of the growing season (mid-September). A third cut shall be done to approximately 1/2 of the area in mid-summer to maintain diversity rotating each year.
- 6.15 Along edges abutting kerbs, fences, footways, a 600mm mown strip up to 4 times per annum during the growing season.
- 6.16 All cut arisings shall be removed to prevent a build-up of organic matter and increased fertility.
- 6.17 Should weeds as listed on Schedule 9 of the Wildlife & Countryside Act or injurious weeds as contained in the Weeds Act 1959' (e.g. docks, thistles etc.) become established, these shall be spot treated with herbicide or removed by hand.

Meadow Grass and Grass Sward

- 6.18 Meadow Grass and Grass Sward areas shall be cut up to a maximum of four times in the first year after seeding to maintain a sward height of 40-75mm. Cutting is intended to both remove competition from annual weeds and to prevent faster growing grasses developing at a rate that would restrict the growth of slower growing wildflowers.
- 6.19 Following the initial establishment cuts, cuts in subsequent years shall be up to 2 cuts per annum to a height of 40 -75mm. Cutting shall take place in the Spring after the first flush of growth to suppress annual weed growth and at the end of the growing season (mid-September). If required a mid-summer cut may be done to maintain species diversity.
- 6.20 Along edges abutting kerbs, fences, footways, a 600mm mown strip up to 4 times per annum during the growing season.

-
- 6.21 All cut arisings shall be removed for composting to prevent a gradual build-up of organic matter which could result in increased fertility.
- 6.22 Should weeds as listed on Schedule 9 of the Wildlife & Countryside Act or injurious weeds as contained in the Weeds Act 1959' (e.g. docks, thistles etc.) become established, these shall be spot treated with herbicide or removed by hand.

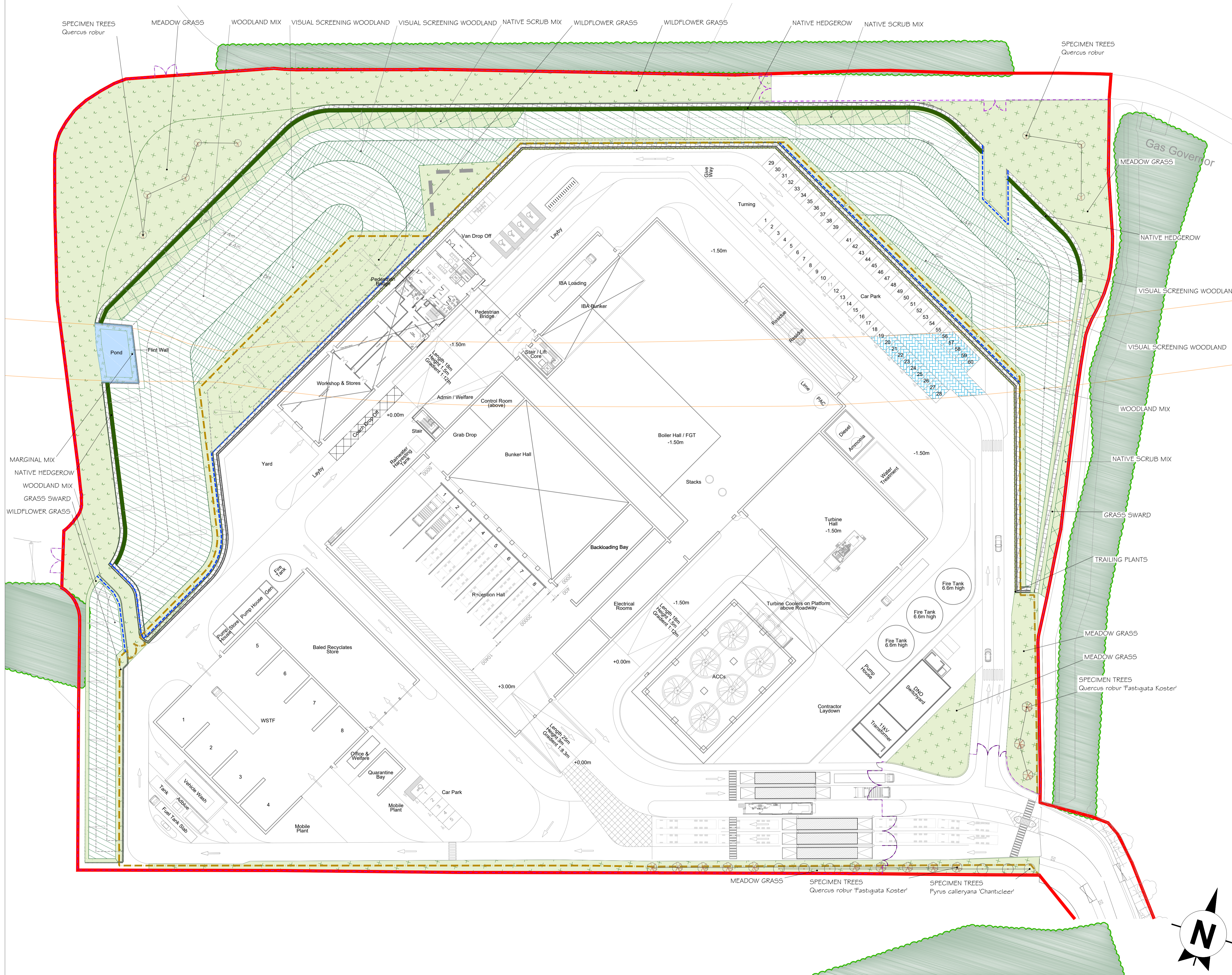
Marginal Seeding

- 6.23 Marginal seeding areas shall be cut twice in the first year after seeding (in late June and mid-August) to maintain a sward height of 100mm. Cutting is intended to remove competition from annual weeds and to prevent faster growing species developing at a rate that would restrict the growth of slower growing ones.
- 6.24 Following the establishment of marginal seed mix, cuts in subsequent years shall take place 2 times per annum to a height of approximately 100mm. Cutting shall take place in the Spring after the first flush of growth to suppress annual weed growth and at the end of the growing season (mid-September). Management will aim to control the spread of vegetation within the pond to ensure that no one species becomes dominant and that no more than approximately 35% of the waterbody is vegetated at any one time (i.e. approx. 65% open water). Removal of plants from the waterbody as required.
- 6.25 Cut material shall be stacked beside the pond and left for 24 hours prior to being removed for composting.
- 6.26 Should weeds as listed on Schedule 9 of the Wildlife & Countryside Act or injurious weeds as contained in the Weeds Act 1959' (e.g. docks, thistles etc.) become established, these shall be removed by hand. Control by herbicide is not permitted.

7.0 MONITORING

- 7.1 A Site inspection shall be undertaken every summer during first five years to identify management successes/ failures gauged against the objectives outlined in this document, and to make any adjustments to management that the findings of such inspections indicate would be appropriate.

DRAWINGS



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Revision History		Date
A	FOR PLANNING	02/03/21
B	FENCING UPDATED	05/03/21
C	FOR PLANNING	09/03/21
D	UPDATED LAYOUT	26/03/21

KEY:

	Site Boundary
	Indicative Existing Vegetation
	Former Canal
	Retaining Wall
	Wooden Acoustic Fencing
	Paladin Fencing
	1.1m Guard Rail
	Gabion Wall Knapped Flint Finish
	Pastel Blue Block Paving to indicate former Canal Alignment
	Benches
	Proposed Contours
	Proposed Spot Heights
	Sloped Landform
	Pond
	Semi-Mature Trees Pynus calleryana 'Chanticleer'
	Semi-Mature Trees Quercus robur 'Fastigiata Koster'
	Heavy Standard Trees Quercus robur
	Woodland
	Visual Screening Woodland
	Native Scrub
	Hedge
	Trailing Plants
	Meadow Grass
	Grass Sward
	Wildflower Grass
	Marginal Planting

<p>Client Office: Well House Brims Breton Chester CH4 8DH</p>	<p>South Manchester Office: Canavia House 76 Water Lane Wilmslow SK9 5BB</p>	
<p>0844 8700 007 - www.axisped.co.uk</p>		
client: --		
project: FORD CIRCULAR TECHNOLOGY PARK		
drawing title: LANDSCAPE SOFTWARES General Arrangement		
date: 19.02.21	drawn by: PHM	checked: JM
drawing number: 2829-01-001	status: FOR PLANNING	
scale(s): 1:500 @ A1	rev: D	
planning environment design		

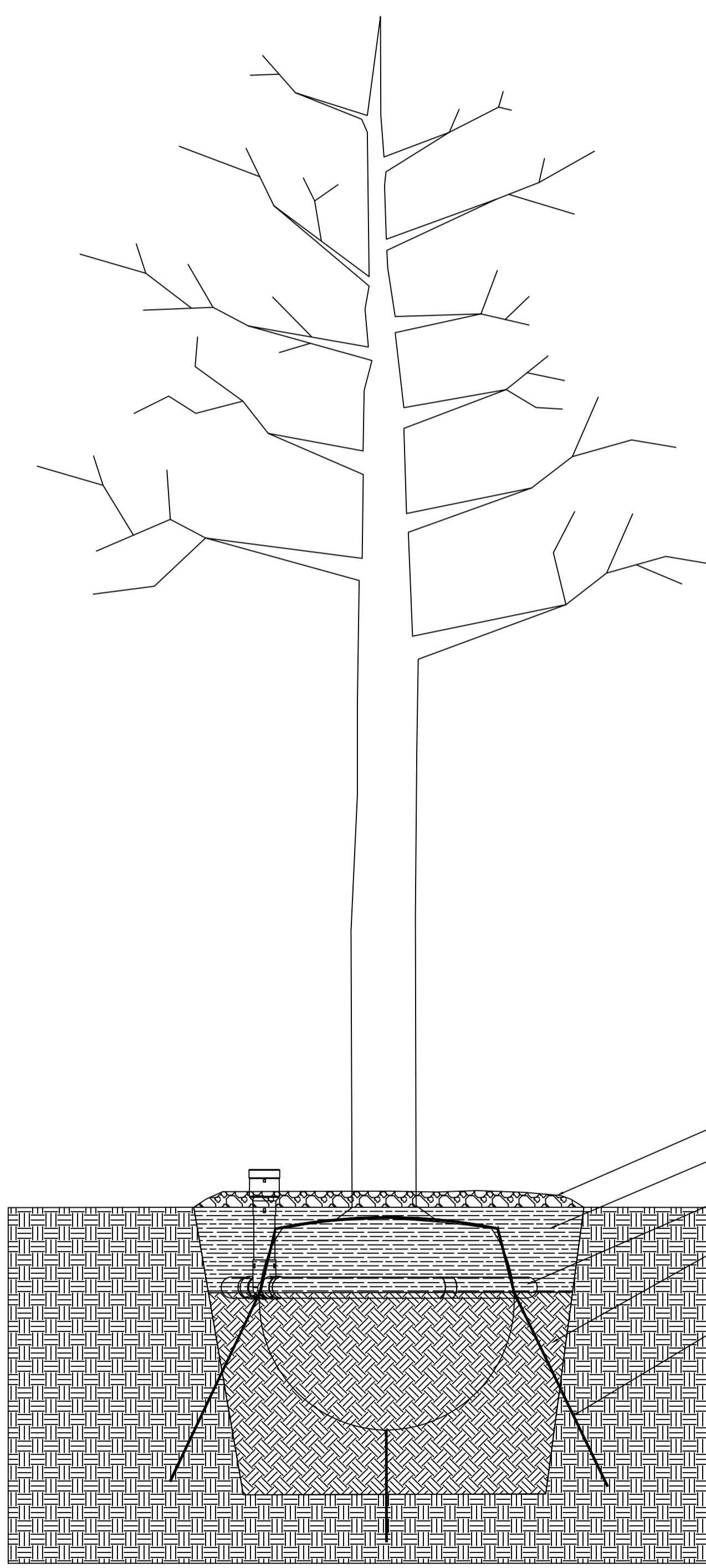
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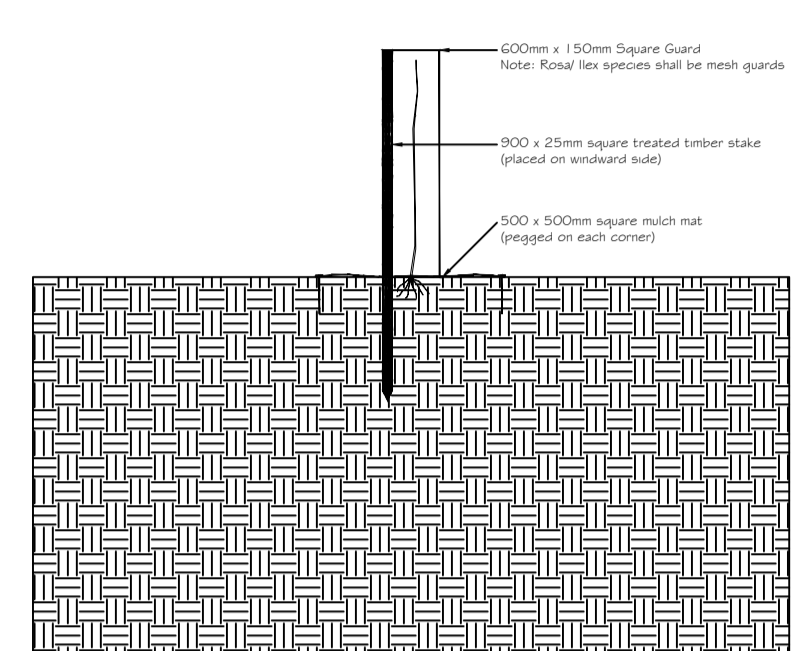
● Revision History ● Date

A	FOR COMMENT	19/02/21
B	ISSUED FOR PLANNING	26/03/21

Extra Heavy Standard Stem Mature Tree Typical Detail
Underground system
1:20 Scale

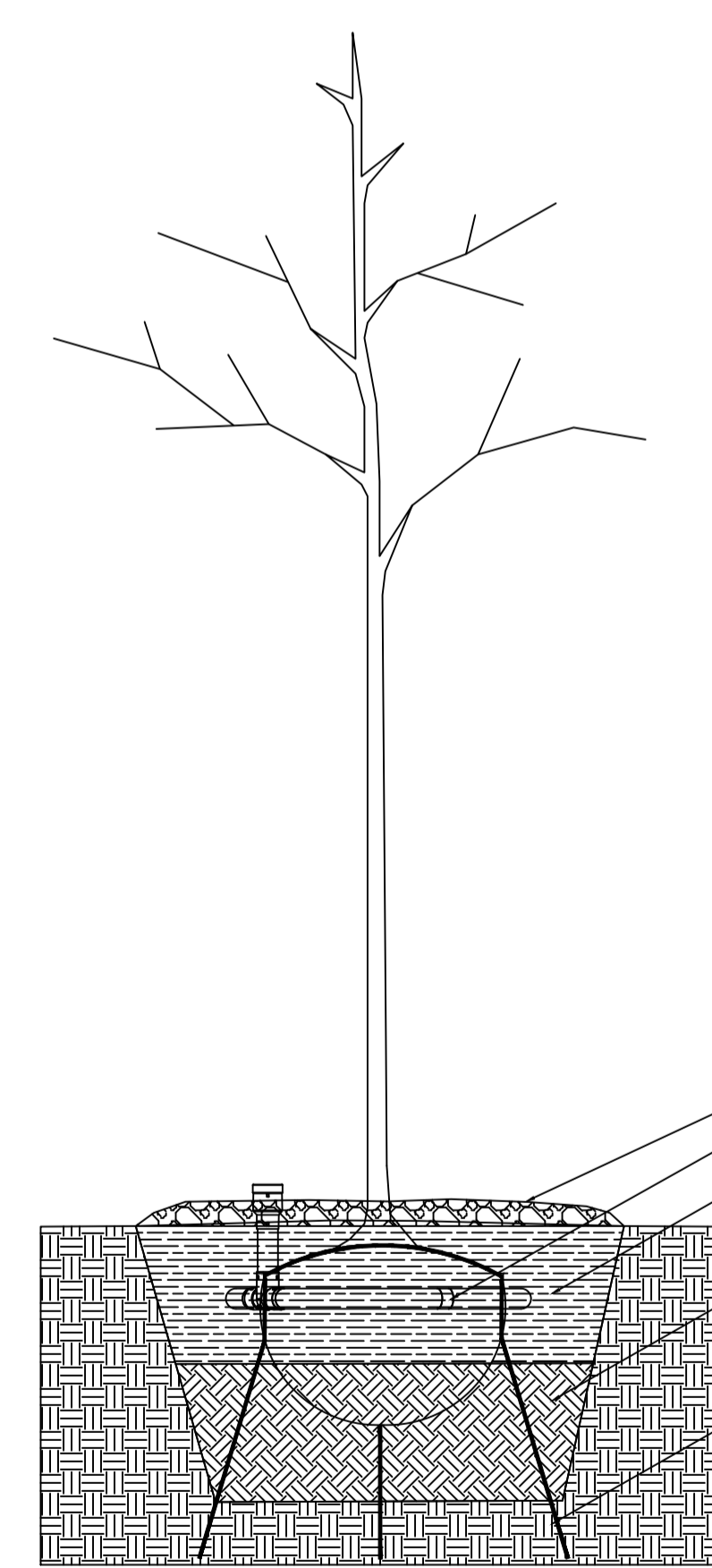


Transplant Typical Planting Detail (Square guard)
40' 500mm Transplants
1:20 Scale



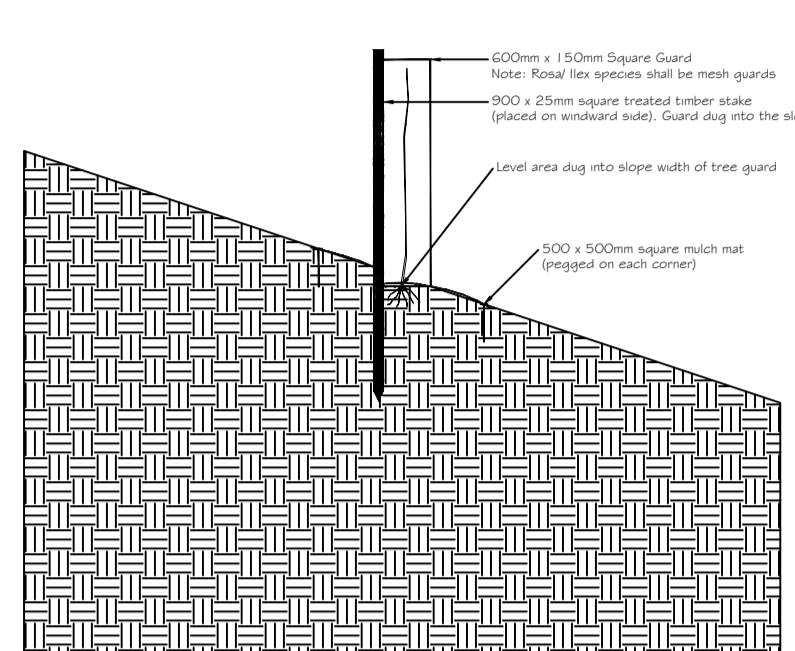
Notch planting
Transplants to be planted in groups of 5-7 of same species.
Spacing as per specification schedule.
Ground to cleared of all vegetation by cutting and be sprayed with contact herbicide prior to planting.
If ground is compacted, soil should be cultivated to minimum 300mm prior to planting.
Roots to be placed on bare root stock if required.
Keep watering plants in water to prevent drying out.
Stake retained for a minimum of 3-5 per transplant at time of planting.
Water to refill.
Match mats to be secured with pegs maximum 500mm apart.
Guard should be flush to the ground and stake minimum of 250mm in the ground and stake to be placed on the windward side and flush with top of guard.

Extra Heavy Standard Tree Typical Detail
Underground system
1:20 Scale



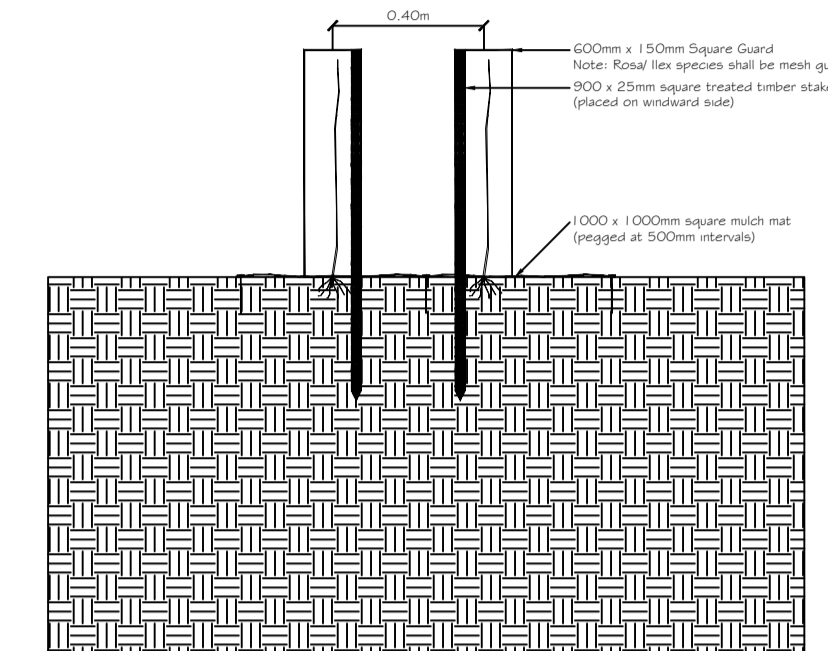
Extra Heavy Standard Tree Planting
Spacing and location as per schedule drawing.
Ground to cleared of all vegetation by cutting and be sprayed with contact herbicide prior to planting.
Tree pit to be dug minimum of 800mm deep and 1000mm wide and at least 150mm deeper than the natural spread of roots whichever is greater.
Sides and bottom of tree pit to be broken up prior to being backfilled.
Tree drawing sub soil to be backfilled and lightly compacted beneath the rootball to ensure stability.
Backfilled soil to be mixed with compost if required as per specification.
3 - 5 size release fertilizer tabs to be added with backfilled soil.
Irrigation pipe to be installed according to manufacturers specifications.
Tree to be kept watered while waiting.
Tree to be securely anchored according to manufacturers specifications.
Tree to be kept watered while waiting.
Water to refill.
Minimum 75mm of mulch to be added to tree pit to cover extent of tree pit.

Transplant Typical Planting Detail on 1:3 slope (Square guard)
40' 500mm Transplants
1:20 Scale



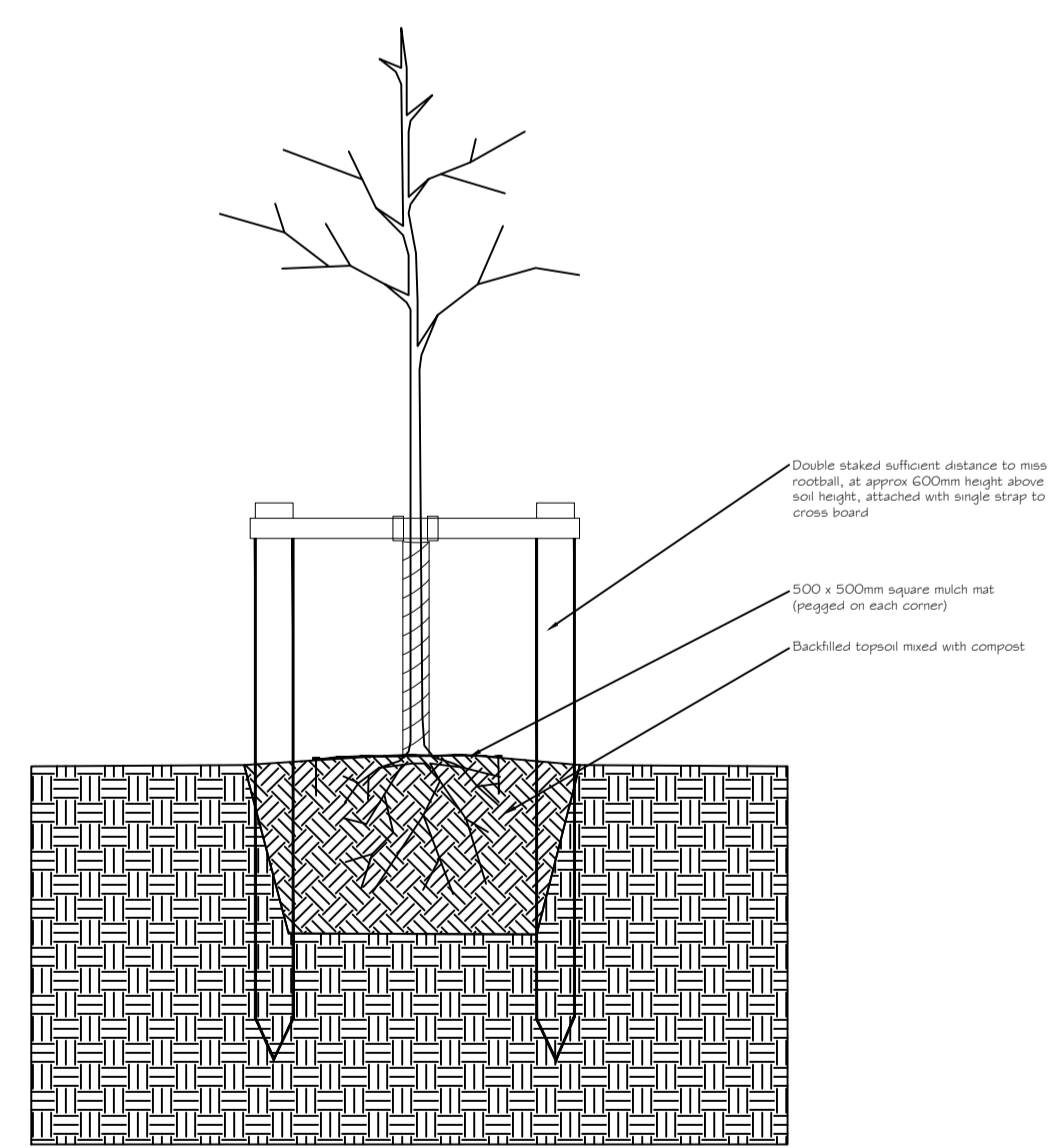
Notch planting
Transplants to be planted in groups of 5-7 of same species.
Spacing as per specification schedule.
Ground to cleared of all vegetation by cutting and be sprayed with contact herbicide prior to planting.
If ground is compacted, soil should be cultivated to minimum 300mm prior to planting.
Roots to be placed on bare root stock if required.
Keep watering plants in water to prevent drying out.
Stake retained for a minimum of 3-5 per transplant at time of planting.
Water to refill.
Match mats to be secured with pegs maximum 500mm apart.
Guard should be dug into the slope and flush to the ground on the windward side and stake minimum of 250mm in the ground and stake to be placed on the windward side and flush with top of guard.

Double Staggered Transplant Hedge Planting Typical Detail (Square guard)
40' 500mm Transplants (Square Guards)
1:20 Scale



Hedge planting (Notch planting)
Cut vegetation back, spray off minimum 1000mm wide x length with contact herbicide prior to planting.
Hedge row to be cultivated minimum 1000mm wide and 300mm deep.
Transplants to be planted in groups of 5-7 of same species.
Roots to be placed on bare root stock if required.
Keep watering plants in water to prevent drying out.
Match mats to be secured with pegs maximum 500mm apart.
Guard should be flush to the ground and stake minimum of 250mm in the ground and stake to be placed on the windward side and flush with top of guard.

Feathered Tree Typical Detail
Bare Root Double Staked
1:20 Scale



Feathered Tree Planting
Spacing and location as per schedule drawing.
Ground to cleared of all vegetation by cutting and be sprayed with contact herbicide prior to planting.
Tree pit to be dug minimum of 400mm deep and 800mm wide and at least 75mm deeper than the rootball.
Sides and bottom of tree pit to be broken up prior to being backfilled.
Backfilled soil to be mixed with compost if required as per specification.
Tree to be kept watered while waiting.
3 - 5 size release fertilizer tabs to be added with backfilled soil.
Tree to be kept watered while waiting.
Tree to be securely anchored according to manufacturers specifications.
Tree to be kept watered while waiting.
Water to refill.
Match mats to be secured with pegs maximum 500mm apart.
Stakes to be secured 75mm diameter, placed on windward side to prevent rubbing. Stakes shall be treated wood.
Stakes to be of sufficient length to be driven in a minimum of 300mm beyond depth of tree pit and 600mm above ground level.
Tree pit to be retained to avoid with a single rubber bar or by two rubber ties, one from each post at approximately 600mm above soil level.
If required e.g. retains then a spring guard to be installed.

Client Office: Well House Barns Breton Chester CH4 8DH	South Manchester Office: Canal House 76 Water Lane Wilmslow SK9 5BB	
0844 8700 007 • www.axisped.co.uk		
client: --		
project: FORD CIRCULAR TECHNOLOGY PARK		
drawing title: LANDSCAPE SOFTWARES TYPICAL DETAILS		
date: 19.02.21	drawn by: PHM	checked: JM
drawing number: 2829-01-002	status: FOR PLANNING	
scale(s): 1:500 @ A1	rev: B	
planning environment design		

Schedule

Specimen Trees

Species	Height	Girth	Specification
Pyrus calleryana 'Chanticleer'	min. 450cm	20-25cm	Semi-Mature :Clear Stem min. 200 :3x :RB
Quercus robur	350-400cm	12-14cm	Heavy Standard :Clear Stem 175-200 :3x :RB
Quercus robur 'Fastigiata Koster'	min. 450cm	20-25cm	Semi-Mature :Clear Stem min. 200 :3x :RB

Woodland

Species	Height	Girth	Specification	Mix Species Contribution	Centre's (M)
Acer campestre	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Alnus glutinosa	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Betula pendula	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Carpinus betulus	40-60cm		1+1 :Transplant :2 brks :B	5%	4Ctr
Cornus sanguinea	40-60cm		1+1 :Transplant :B	5%	4Ctr
Corylus avellana	40-60cm		1+2 :Transplant :Branched :3 brks :B	5%	4Ctr
Crataegus monogyna	40-60cm		1+1 :Transplant :2 brks :B	12%	4Ctr
Malus sylvestris	40-60cm		1+1 :Transplant :2 brks :B	5%	4Ctr
Populus tremula	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Prunus spinosa	40-60cm		1+1 :Transplant :B	5%	4Ctr
Quercus robur	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Rosa canina	40-60cm		1+1 :Transplant :B	3%	4Ctr
Sorbus aucuparia	40-60cm		1+1 :Transplant :2 brks :B	10%	4Ctr
Total :				100%	

Visual Screening Woodland

Species	Height	Girth	Specification	Mix Species Contribution	Centre's (M)
Alnus glutinosa	2.0-2.5m	6-8cm	Feather :B	30%	4Ctr
Betula pendula	2.0-2.5m	6-8cm	Feather :B	15%	4Ctr
Corylus avellana	175-200cm		Feather :B	30%	4Ctr
Populus tremula	2.0-2.5m	6-8cm	Feather :B	15%	4Ctr
Salix fragilis	2.0-2.5m	6-8cm	Feather :B	10%	4Ctr
Total :				100%	

Native Hedgerow

Species	Height	Specification	Mix Species Contribution	Centre's (M)
Corylus avellana	40-60cm	1+1 : Transplant: B	15%	0.4Ctr Double Staggered at 0.4m offset
Crataegus monogyna	40-60cm	1+1 : Transplant: B	65%	0.4Ctr Double Staggered at 0.4m offset
Malus sylvestris	40-60cm	1+1 : Transplant: B	5%	0.4Ctr Double Staggered at 0.4m offset
Prunus spinosa	40-60cm	1+1 : Transplant: B	5%	0.4Ctr Double Staggered at 0.4m offset
Rosa canina	40-60cm	1+1 : Transplant: B	5%	0.4Ctr Double Staggered at 0.4m offset
Viburnum opulus	40-60cm	1+1 : Transplant: B	5%	0.4Ctr Double Staggered at 0.4m offset
Total :			100%	

Native Scrub

Species	Height	Specification	Mix Species Contribution	Centre's (M)
Euonymus europaeus	40-60cm	1+1 : Transplant: B	20%	2Ctr
Prunus spinosa	40-60cm	1+1 : Transplant: B	20%	2Ctr
Rosa canina	40-60cm	1+1 : Transplant: B	5%	2Ctr
Rubus fruticosus	40-60cm	1+1 :Several shoots :C	5%	2Ctr
Sambucus nigra	40-60cm	1+1 : Transplant: B	15%	2Ctr
Viburnum lantana	40-60cm	1+1 : Transplant: B	20%	2Ctr
Viburnum opulus	40-60cm	1+1 : Transplant: B	15%	2Ctr
Total :			100%	

Trailing Plants

Number	Species	Specification	Centre's (M)
557 -	Hedera helix 'Variegata'	Several Shoots	2/m

Seed Mixes

Header	Seed Mix Name	Seed Mix Supplier	Density
WILDFLOWER GRASS	BFS 14 - Brownfield Site	British Flora	3g/m ²
MEADOW GRASS	EG 1 - General Purpose Meadow	Emorsgate	5g/m ²
GRASS SWARD	EH 1 - Hedgerow Mixture	Emorsgate	5g/m ²
MARGINAL MIX	EP 1 - Pond Edge	Emorsgate	4g/m ²

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	Revision History	Date
A	FOR COMMENT	19/02/21
B	UPDATED MIX	05/03/21
C	FOR PLANNING	09/03/21

Chester Office: Well House Bams Breton Chester CH4 8DH	South Manchester Office: Canella House 76 Water Lane Wilmslow SK9 5BB	
0844 8700 007 - www.axisped.co.uk		
client: --		
project: FORD CIRCULAR TECHNOLOGY PARK		
drawing title: LANDSCAPE SOFTWARES TREE SPECIES AND DENSITIES		
date: 02/03/21	drawn by: PHM	checked: JM
drawing number: 2829-01-003		status: FOR PLANNING
scale(s): NTS	rev: B	
planning environment design		

APPENDICES

APPENDIX 1: INDICATIVE MANAGEMENT SCHEDULES

These management schedules are indicative only. They are intended as a guide for the activities required during the first five years of the scheme, rather than to be a prescriptive timetable of management operations

YEAR 1	
TIMING	MANAGEMENT ACTIVITY
Up to 2 x annum	<ul style="list-style-type: none">Establishment cut for wildflower grass and marginal seeding late June and mid-August to maintain sward height of 100mm. Arisings to be removed.
Up to 4 x annum	<ul style="list-style-type: none">Establishment cut for Meadow Grass and Grass sward height of 40-75m during the growing season. Arisings to be removed
Late summer	<ul style="list-style-type: none">Annual inspection of the site to review management and maintenance measures.
Autumn/Winter	<ul style="list-style-type: none">Identify plant failures and review reason for failure. Remove and replace as necessary.
Each visit	<ul style="list-style-type: none">Check general health of new planting and review need for control of pests, diseases, or the application of fertiliser.Maintain annual weedsAreas to be kept free of weeds as listed on Schedule 9 or injurious weeds (docks, thistles etc).Water all trees and shrubs to refusal during dry conditions to ensure continued growth and good healthCheck and firm up all trees and plants as necessary.Check and repair fencing as necessary.Check mulch mats are fixed and in position.Check, re-fix and replace tree guards, stakes and ties as necessary.Remove any litter and dispose of off-site.Check for vandalism.

YEAR 2	
TIMING	MANAGEMENT ACTIVITY
Spring	<ul style="list-style-type: none"> • Add fertiliser tablets to specimen trees. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut meadow grass and grass sward to 40-75mm. Arisings to be removed.
Mid-Summer	<ul style="list-style-type: none"> • Cut 1/2 of wildflower grass to 100mm. Arisings to be removed. • Cut meadow grass to 40 – 75mm if required. Arisings to be removed.
Late summer (mid-September)	<ul style="list-style-type: none"> • Annual inspection of the site to review management and maintenance measures. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut Meadow grass and grass sward to 40 -75mm. Arisings to be removed.
Autumn/Winter	<ul style="list-style-type: none"> • Identify plant failures and review reason for failure. Remove and replace as necessary.
Each visit	<ul style="list-style-type: none"> • Check general health of new planting and review need for control of pests, diseases, or the application of fertiliser. • Maintain planting stations weed free using a combination of hand pulling/hoeing and/ or an appropriate non-residual herbicide (non-glyphosate). • Areas to be kept free of weeds as listed on Schedule 9 or injurious weeds (docks, thistles etc). • Water all trees and shrubs to refusal during dry conditions to ensure continued growth and good health. • Check and firm up all trees and shrubs as necessary. • Check and repair fencing as necessary. • Check mulch mats are fixed and in position. • Top up mulch to specimen trees. • Check, re-fix and replace tree guards, stakes and ties as necessary. • Remove any litter and dispose of off-site. • Check for vandalism.

YEAR 3	
TIMING	MANAGEMENT ACTIVITY
Spring	<ul style="list-style-type: none"> • Add fertiliser tablets to specimen trees. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut meadow grass and grass sward to 40-75mm. Arisings to be removed.
Mid-Summer	<ul style="list-style-type: none"> • Cut 1/2 of wildflower grass to 100mm. Arisings to be removed. • Cut meadow grass to 40 – 75mm if required. Arisings to be removed.
Late summer (mid-September)	<ul style="list-style-type: none"> • Annual inspection of the site to review management and maintenance measures. • Identify if any thinning or coppicing works are required in woodland or scrub areas. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut Meadow grass and grass sward to 40 -75mm. Arisings to be removed.
Autumn/Winter	<ul style="list-style-type: none"> • Identify plant failures and review reason for failure. Remove and replace as necessary. • Cut hedgerow to height 1.5m to 2m (outside of bird nesting season). • Undertake thinning or coppicing works if required in woodland or scrub areas.
Each visit	<ul style="list-style-type: none"> • Check general health of new planting and review need for control of pests, diseases, or the application of fertiliser. • Maintain planting stations weed free using a combination of hand pulling/hoeing and/ or an appropriate non-residual herbicide (non-glyphosate). • Areas to be kept free of weeds as listed on Schedule 9 or injurious weeds (docks, thistles etc). • Water all trees and shrubs to refusal during dry conditions to ensure continued growth and good health. • Check and firm up all trees and shrubs as necessary. • Check and repair fencing as necessary. • Check mulch mats are fixed and in position. • Top up mulch to specimen trees. • Check, re-fix and replace tree guards, stakes and ties as necessary. • Remove any litter and dispose of off-site. • Check for vandalism.

YEAR 4	
TIMING	MANAGEMENT ACTIVITY
Spring	<ul style="list-style-type: none"> • Add fertiliser tablets to specimen trees. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut meadow grass and grass sward to 40-75mm. Arising to be removed.
Mid-Summer	<ul style="list-style-type: none"> • Cut 1/2 of wildflower grass to 100mm. Arisings to be removed. • Cut meadow grass to 40 – 75mm if required. Arisings to be removed.
Late summer (mid-September)	<ul style="list-style-type: none"> • Annual inspection of the site to review management and maintenance measures. • Identify if any thinning or coppicing works are required in woodland or scrub areas. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut Meadow grass and grass sward to 40 -75mm. Arising to be removed.
Autumn/Winter	<ul style="list-style-type: none"> • Identify plant failures and review reason for failure. Remove and replace as necessary. • Cut hedgerow to height 1.5m to 2m (outside of bird nesting season). • Undertake thinning or coppicing works if required in woodland or scrub areas.
Each visit	<ul style="list-style-type: none"> • Check general health of new planting and review need for control of pests, diseases, or the application of fertiliser. • Maintain planting stations weed free using a combination of hand pulling/hoeing and/ or an appropriate non-residual herbicide (non-glyphosate). • Areas to be kept free of weeds as listed on Schedule 9 or injurious weeds (docks, thistles etc). • Water all trees and shrubs to refusal during dry conditions to ensure continued growth and good health. • Check and firm up all trees and shrubs as necessary. • Check and repair fencing as necessary. • Top up mulch to specimen trees. • Remove guards and stakes from all trees and shrubs. • Remove any litter and dispose of off-site. • Check for vandalism.

YEAR 5	
TIMING	MANAGEMENT ACTIVITY
Spring	<ul style="list-style-type: none"> • Add fertiliser tablets to specimen trees. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut meadow grass and grass sward to 40-75mm. Arisings to be removed.
Mid-Summer	<ul style="list-style-type: none"> • Cut 1/2 of wildflower grass to 100mm. Arisings to be removed. • Cut meadow grass to 40 – 75mm if required. Arisings to be removed.
Late summer (mid-September)	<ul style="list-style-type: none"> • Annual inspection of the site to review management and maintenance measures. • Identify if any thinning or coppicing works are required in woodland or scrub areas. • Cut wildflower grass and marginal seeding to 100mm. Arisings to be removed. • Cut Meadow grass and grass sward to 40 -75mm. Arisings to be removed.
Autumn/Winter	<ul style="list-style-type: none"> • Identify plant failures and review reason for failure. Remove and replace as necessary. • Cut hedgerow to height 1.5m to 2m (outside of bird nesting season) • Undertake thinning or coppicing works if required in woodland or scrub areas
Each visit	<ul style="list-style-type: none"> • Check general health of new planting and review need for control of pests, diseases, or the application of fertiliser. • Maintain planting stations weed free using a combination of hand pulling/hoeing and/ or an appropriate non-residual herbicide (non-glyphosate). • Areas to be kept free of weeds as listed on Schedule 9 or injurious weeds (docks, thistles etc). • Water all trees and shrubs to refusal during dry conditions to ensure continued growth and good health. • Check and firm up all trees and shrubs as necessary. • Check and repair fencing as necessary. • Top up mulch to specimen trees. • Remove any litter and dispose of off-site. • Check for vandalism.