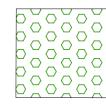


Woodland Tree Planting Species (to be selected from)

Species	Form	Age	Girth	Height	Clear Stem
Acer campestre	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm
Alnus glutinosa	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm
Betula pendula	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm
Fagus sylvatica	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm
Prunus avium	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm
Quercus robur	Standard (Standard)	2x	8-10cm	250-300cm	175-200cm



Woodland Understory / Edge Mix

Species	Root	Height	Habit	Form	Age
Acer campestre	В	125-150cm		Feathered	2x
Cornus sanguinea	В	60-80cm	Branched	Whip/Feather	1/2
Corylus avellana	В	60-80cm	Branched	Whip/Feather	1/2
llex aquifolium	С	60-80cm	Leader & Laterals		
Malus sylvestris	В	175-200cm	Branched	Feathered	2x
Prunus spinosa	В	60-80cm	Branched	Whip/Feather	1/1
Sambucus nigra	В	60-80cm	Branched	Whip/Feather	1/1
Sorbus aucuparia	В	125-150cm	Branched	Feathered	2x
Viburnum opulus	В	60-80cm	Branched	Whip/Feather	1/2

Native Shrub Mix

Root	Habit	Form	Age	Density
В	Branched	Transplant		2.00
В	Branched	Transplant		2.00
В	Branched	Transplant		2.00
В	Leader & Laterals	Transplant		2.00
В	Branched	Transplant		2.00
В	Branched	Transplant		2.00
С	Branched	Transplant		2.00
С	Branched	Transplant		2.00
С	Bushy	Transplant		2.00
В	Branched	Transplant		2.00
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Native Hedge Mix							
Species	Root	Height	Habit	Form	Age	Centres (m)	Mix %
Acer campestre	В			Transplant		0.250	20.00 %
Crataegus monogyna	В			Transplant		0.250	40.00 %
Corylus avellana	В		Branched			0.250	10.00 %
llex aquifolium	С		Leader & Laterals			0.250	10.00 %
Prunus spinosa	В		Branched			0.250	10.00 %
Viburnum opulus	В		Branched	Transplant		0.250	10.00 %



EM8 Meadow Mixture for Wetlands (Sow at 50Kg/hectare or 5g/m2)

Composition:

Emorsgate EM8 (or similar approved) contains species suitable for seasonally wet soils and is based on the vegetation of traditional water meadows. Soils in wet meadows may flood for short periods in winter, but are usually well drained in summer.

Common name

Common Knapweed

Greater Birdsfoot Trefoil

Meadowsweet

Oxeye Daisy

Cowslip

Selfheal

Lady's Bedstraw

Ribwort Plantain

Meadow Buttercup

Yellow Rattle

Ragged Robin

Tufted Vetch

Common Sorrel

Pepper Saxifrage

Devil's-bit Scabious

Yarrow

Betony

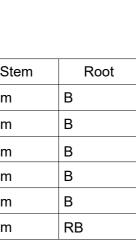
Wild Flowers (20%)

% Latin name

- 0.5 Achillea millefolium
- 0.5 *Betonica officinalis* (Stachys officinalis)
- Centaurea nigra Filipendula ulmaria
- 1.6 *Galium verum*
- 1.5 *Leucanthemum vulgare*
- 0.3 Lotus pedunculatus
- Plantago lanceolata
- Primula veris
- Prunella vulgaris
- Ranunculus acris
- 1.6 *Rhinanthus minor*
- 1.2 *Rumex acetosa*
- 1.5 Silaum silaus 0.3 *Silene flos-cuculi* - (Lychnis flos-cuculi)
- 0.2 Succisa pratensis
- 1.8 Vicia cracca

Grasses (80%)

-		
%	Latin name	Common name
12	Agrostis capillaris	Common Bent
5	Alopecurus pratensis	Meadow Foxtail (w)
1	Anthoxanthum odoratum	Sweet Vernal-grass (w)
36	Cynosurus cristatus	Crested Dogstail
1	Deschampsia cespitosa	Tufted Hair-grass (w)
25	Festuca rubra	Slender-creeping Red-fescue





Centres Mix % (m) 1.000 7.00 % 1.000 15.00 % 1.000 15.00 % 1.000 15.00 % 1.000 7.00 % 1.000 5.00 % 1.000 14.00 % 1.000 7.00 % 1.000 15.00 %

Mix %	
15.00	%
15.00	%
10.00	%
5.00	%
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15.00	%
5.00	%
5.00	%
5.00	%
15.00	%

Ameni	ty Tree Planting S	pecies	(to be sel	ected fron	n)	
Species	Form	Age	Girth	Height	Clear Stem	Root
Acer campestre 'Streetwise'	Semi-Mature	4x	20-25cm	500-550cm	min 200cm	RB
Acer griseum	Standard (Extra Heavy)	3x	18-20cm	450-650cm	min 200cm	RB
Acer platanoides 'Crimson King'	Standard (Extra Heavy)	3x	16-18cm	450-625cm	min 200cm	RB
Acer platanoides 'Princetown Gold'	Standard (Extra Heavy)	3x	16-18cm	450-625cm	min 200cm	RB
Alnus glutinosa	Standard	3x	18-20cm	425-600cm	min 200cm	RB
Betula pendula	Standard (Extra Heavy)	3x	18-20cm	450-500cm	min 200cm	RB
Crataegus laevigata 'Crimson Cloud'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	RB
iquidambar styraciflua	Standard (Extra Heavy)	3x	18-20cm	450-500cm	min 200cm	RB
iriodendron tulipifera	Standard (Extra Heavy)	3x	16-18cm	400-450cm	min 200cm	RB
Prunus avium	Standard (Extra Heavy)	3x	18-20cm	450-500cm	min 200cm	RB
Prunus serrula	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	RB
Quercus robur	Standard (Extra Heavy)	3x	18-20cm	450-500cm	min 200cm	RB
alix alba		3x	18-20cm	450-500cm	min 200cm	RB
orbus aucuparia 'Majestica'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	RB
ilia cordata 'Green Spire'	Semi-Mature	4x	20-25cm	500-550cm	min 200cm	RB

Amenity Hedge Planting

Species	Root	Container	Height	Centres (m)	Mix %
Carpinus betulus	В		80-100cm	0.400	100.00 %
Fagus sylvatica	BR		80-100cm	0.450	100.00 %

Amenity Shrub Mix A

Species	Container	Root	Height	Habit	Ctr
Choisya ternata 'Sundance'	3L	С	30-40cm	Bushy	0.500
Ceanothus 'Blue Mound'	3L	С	30-40cm(D)	Bushy	0.600
Prunus laurocerasus 'Otto Luyken'	3L	С	30-40cm	Bushy	0.600

Amenity Shrub Mix B

Species	Container	Root	Height	Habit	Ctr
Hebe 'White Gem'	5-7.5L	С	30-40cm	Bushy	0.400
Lavandula angustifolia 'Rosea'	5-7.5L	С	30-40cm	Bushy	0.400
Perovskia atriplicifolia 'Blue Spire'	3L	С	30-40cm(D)		0.450

Amenity Shrub Mix D

Species	Container	Root	Height	Habit	Ctr
Cornus stolonifera 'Kelseyi'	3L	С	30-40cm		0.500
Lonicera pileata	3L	С	30-40cm(D)	Bushy	0.600
Sarcococca humilis	3L	С	20-25cm	Bushy	0.500

Amenity Shrub Mix E

Species	Container	Root	Height	Habit	Ctr
Euonymus fortunei 'Emerald Gaiety'	5-7.5L	С	30-40cm(D)	Several Shoots	0.400
Mahonia aquifolium 'Apollo'	3L	С	20-25cm	Branched	0.500
Viburnum davidii	5-7.5L	C	30-40cm	Bushy	0.500

Amenity Shrub Mix F

Species	Container	Root	Height	Habit	Cti
Euonymus fortunei 'Emerald Gaiety'	5-7.5L	С	30-40cm(D)	Branched	0.400
Fuchsia 'Mrs Popple'	3L	С	30-40cm	Bushy	0.500
Ruscus aculeatus	3L	С	30-40cm	Bushy	0.500

Amenity Shrub Mix G

Species	Container	Root	Height	Habit	Ct
erberis 'Bagatelle'	3L	С	30-40cm	Branched	0.400
Cotoneaster salicifolius 'Gnom'	3L	С	40-60cm	Branched	0.300
achysandra terminalis 'Variegata'	3L	С	15-20cm(D)	Branched	0.400

Amenity Shrub Mix H

Species	Container	Root	Height	Habit	Cti		
Aucuba japonica 'Crotonifolia'	3L	С	30-40cm	Bushy	0.600		
Choisya ternata	3L	С	30-40cm	Bushy	0.600		
Photinia x fraserii 'Red Robin'	2L	С	30-40cm	Branched	0.600		
Prunus laurocerasus 'Otto Luyken'	5-7.5L	C	40-60cm	Bushy	0.600		

Amenity Shrub Mix J

Species	Container	Root	Height	Habit	Cti
Ceanothus 'Autumnal Blue'	3L	С	40-60cm	Leader & Laterals	0.600
Euonymus japonicus	3L	С	30-40cm	Branched	0.600
Hebe 'Midsummer Beauty'	3L	С	30-40cm	Bushy	0.600
Viburnum tinus 'Eve Price'	3L	С	30-40cm	Bushy	0.600

WILDFLOWER MANAGEMENT Do not use fertiliser

Control weeds before sowing. Annual weeds may be hoed, buried or killed with a contract herbicide. Perennial weeds should be eradicated by a translocated glyphosate-based herbicide. Sow mixtures either from early March to early May, or from early August to mid September, cultivate the ground to provide a fine, weed free seed bed, firm if necessary. Sow evenly at 4gms / m2, thoroughly mix one part seed with four parts dry sand to easily distribute.

Rake seed in lightly with spring-tined rake and firm soil by treading or, preferably, rolling. Water with a fine spray and keep well watered and free from unwanted plants. Cut the sward every six-eight weeks during the first year after sowing and remove

the cuttings, in the following years cut in early spring before growth starts and in October once wild flowers have been shed - remove all cuttings.

BIOSECURITY

RPS GROUP ARE COMMITTED TO THE PROTECTION OF THE UK ENVIRONMENT AND RECOGNISE THE IMPORTANCE OF RISKS POSED BY IMPORTED PESTS AND DISEASES All trees and shrubs are to be sourced responsibly, in the first instance, from

- UK Nurseries / suppliers, where they have been propagated and/or grown on for a minimum of 5 years in the UK (2 years for shrubs); In light of this, all suppliers shall be approved, shall share our values and must have a sound Biosecurity Policy / Management Systems in place to demonstrate the traceability of their stock, and an awareness of the
- prevalence of all current biosecurity threats, both domestically and abroad; The contractor is responsible for ensuring that they operate in strict accordance with the latest guidelines set out by DEFRA, including regularly checking for updates in relation to the latest health controls / diseases; i.e. (http://planthealthportal.defra.gov.uk)
- Inspections will be carried out at selected nurseries and plant health certification / passports will be sought to identify traceability of tree and shrub stock as required.

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Management Regulations (2015).

INDICATIVE PLANTING SPECIFICATION

EXISTING TREES AND SHRUBS

Where existing trees & shrubs are to be retained they should be subject to a full arboricultural inspection for safety.

Any surgery required shall be in accordance with BS 3998 (2010) 'Tree Work -Recommendations', shall comply with any existing T.P.O requirements and shall require the prior approval of the Landscape Architect.

Avoid damage to branches, trunks and roots of trees. All existing trees & hedges to be retained are subject to BS 5837 (2012) 'Trees in relation to design, demolition and construction - Recommendations', and should be fully fenced off, prior to the commencement of any works, in accordance with Figure 2 (p20) at the full extent of the root protection area, as determined by section 4.6 (p10-11) and Annex D (p40). No storage of materials, disposal of rubbish, site fires, spillage of oil and chemicals, ground compaction, excavation or changes in level shall be carried out within existing tree / hedge canopies.

PLANTING

All plants and planting to comply with the requirements of all current / relevant British Standard specifications including BS 8545 (2014) 'Trees from Nursery to Independence in the Landscape', BS 3936; Part 1 (1992), Part 2 (1990) and Part 4 (2007) and BS 4043 (1989) where applicable, BS 4428 (1989). All plants to be supplied in accordance with the plant schedule and with regard to imported stock and notifiable diseases within the Plant Health Act 1967 (revised 2009). Any plant material planted outside the recognised planting season (Nov-Feb), to be containerised stock and supplied at the sizes specified. Where possible, trees and shrubs of UK provenance are preferred.

TREE PLANTING

A suitable method of foundation allowing for existing ground conditions is to be provided to accommodate the proposed tree planting. All trees are to be planted as shown ensuring a minimum of 5 metres from buildings and 3 metres from drainage and services. Where necessary, root barriers to be installed (supplier: GreenBlue Urban (www.greenblueurban.com), or equal approved), as recommended by structural engineer. Allow for the use of container grown stock during the period 1 April to 31 October, and field grown stock from 1 November to 31 March.

SHRUB PLANTING

Where a shrub planting mix has been specified, plants to be grouped in 3 No. (min.) to 7 No. (max.) single species groups. Larger species to be located towards the rear of planting beds (i.e. where against a screen wall / house frontage), or towards the centre of an island planting bed. Thorny species to be located centrally within the planting bed.

TOPSOIL REQUIREMENTS

To BS 3882 (2015) 'Specification for topsoil' as qualified by full contract specification. All areas shall be cultivated to a minimum depth of 150mm. Full weed, rubbish and stones over 20mm gauge shall be removed. Earth to be rolled as required and raked in two directions. Applied to all newly planted areas (except wildflower / meadow planting), to manufacturers' recommendations where appropriate.

Shrub / structure planting beds - 450mm depth

Heavy standard tree pits 1500mm dia. x 450mm depth (Note: 450mm depth subsoil to be provided below - refer to tree pit details)

Grass areas 150mm depth Where necessary increase tree pit dimensions to ensure that tree pits are at least 75mm deeper and 150mm wider than rootball. Break up bottom of pits to a depth of

150mm. Compacted glazed sides of pits should be roughened. Full analysis of existing and imported topsoil required prior to use.

TOPSOIL IMPROVEMENTS

Applied to all newly planted areas, to manufacturers' recommendations where appropriate:

1) Incorporate 75mm depth of soil conditioner into topsoil during cultivation; 2) Incorporate Enmag CRF granular fertilizer at approx 140g per pit to standard tree

NB - Watering to be carried out prior to application of bark mulch.

pit backfill and 70g per pit to structural / ornamental shrub planting 3) Watering - supply minimum 54 litres / tree and 4.5 litres / shrub at planting; 4) Mulch - lightly fork over planted areas before applying a 75mm depth 50-100mm grade bark mulch. Note: all trees are to have minimum 300mm dia 'weed free' mulched areas around the base to eliminate the risk of strimmer damage. Ornamental Bark to consist of predominantly matured British Pine Bark with an even nominal particle size distribution of 5-35mm with 0% dust & fines & less than 5% wood content. The product shall be pest, disease & weed free & not have

PLANT MATERIAL TREATMENT

NB All to be British grown stock and fully hardened off.

been treated with Methyl Bromide or any additives. The product shall have been

tested in accordance with the requirements of BS 4790:1987, for fire resistance.

Root Dip - Proprietary Root Dip applied to all bare rooted stock (1) at time of lifting at nursery and (2) prior to planting. Anti-Desiccant - Proprietary anti-desiccant to be applied to foliage of all containerised / rootballed material in leaf, specimen conifers and evergreens etc. (1) prior to transportation and (2) during any delay in planting.

Pruning - Allow for pruning of all deciduous trees and shrubs by 1/3rd following planting at Landscape Architects direction or as indicated in the planting schedule.

Tree Stakes & Ties - Stakes to be pressure treated, round, smooth and peeled Larch

or Chestnut, not less than 100mm in diameter. Advanced nursery stock double staked with cross bar.

TREE STAKES, TIES & GUARDS

Trees planted within grassed areas to be provided with appropriate conical strimmer guards. Stakes to be pressure impregnated softwood, round, peeled, straight, free of projections and pointed at one end. Minimum length and thickness to be determined as follows:

determined as follows.				
	Tree type Ex / Hvy Std	Min Dia. 100mm	Overall Height 1.8m	Height exposed above ground 0.6m
	Tree type Ex / Hvy Std	No. stakes 2	No. ties 1	

TURFED AREAS

Turf to BS 3969 (1998+A1:2013) 'Recommendations for Turf for general purposes' from an approved source. When topsoil is reasonably dry and workable, grade to smooth, flowing contours removing all minor hollows and ridges. Cultivate soil to full depth and break up any compacted topsoil. Apply approved herbicide to control perennial weeds and allow period of time to elapse as recommended by manufacturer before final cultivation. Apply proprietary fertiliser. Reduce top 25mm topsoil to a fine tilth by further cultivation. Remove stones exceeding 50mm in any dimension. Lay turf with broken joints, well butted up, working from planks laid on previously laid turves, during appropriate season and weather conditions. Adjust levels by raking out or filling with fine soil under turves. Consolidate by lightly and

evenly firming with wooden beaters as laying proceeds. Do not use rollers. Dress

turf with fine topsoil and brush in to fill joints. Thoroughly water completed turf within 24 hours of laying.

TURFED AREAS: ESTABLISHMENT CUT

Water all grass areas to maintain healthy growth. When grass is 50mm high remove debris, litter and any stones later in dry conditions cut grass to between 25-30mm. Remove and dispose of all arisings.

PROTECTIVE FENCING

The contractor shall maintain fencing until all site works are complete. The contractor will then remove the fencing and reinstate the ground. The fencing will remain the property of the contractor.

Within the area so fenced, the existing ground level shall be neither raised nor lowered, all excavations shall then be carried out by hand.

The Local Planning Authority shall be advised in writing when the protective fencing has been erected so that it can be checked on site before development commences, and shall thereafter be maintained during the period of construction.

MAINTENANCE

Regular visits (minimum 14 No.) required during the defects liability / rectification period to maintain all planted areas in a weed and litter free condition using a combination of chemical spray and hand weeding to be agreed with the Landscape Architect. Maintenance to include watering, pruning, pest and disease control and re-mulching as required. Grass areas to be mowed at 2 week intervals during the growing season.

Structure planting areas shall be maintained as non competitive weed free environment by repeated applications of a glyphosate based herbicide. Persistent weeds and unwanted scrub shall be spot treated as necessary with an alternative

herbicide to be agreed with the Landscape Architect. Watering shall be carried out as necessary to maintain healthy growth or as required by the Landscape Architect.

NB: Final visit to be immediately prior to handing over and to include a fertilizer treatment of Enmag CRF granular fertilizer at 100g / m2 and a 25mm depth bark mulch top up to all planted areas.

BUFFER PLANTING: FEATHERED TREES AND WHIPS

Notch planting will not be permitted. All feathered trees and whips will be planted in

prepared pits 600mm diameter x 600mm deep for feathered trees and 300mm diameter x 300mm deep for whips.

Each plant shall be placed upright in the centre of the pit with the roots spread evenly outwards and downwards without restriction, and backfilled with topsoil (to BS 3882: 2015), incorporating TPMC Tree Planting Compost (Amenity Land Solutions) (or equal approved) well mixed with topsoil backfill at a rate of 50:50 in consolidated

layers, shaking the trees to remove voids. Incorporate Enmag CRF granular fertilizer at approx 140g per pit to feathered tree pit backfill and 70g per pit to structural shrub / whip planting backfill.

Supply water at a minimum 4.5 litres / whip and 18 litres / feathered tree prior to bark

mulching.

Feathered trees shall be staked using 1.0m long Larch or Chestnut stakes, round, smooth, and peeled with 75mm diameter at the point and not less than 50mm at the butt end, driven at least 600mm into the ground. Trees will be secured to the stake

using a single 'Tom Tie' (www.jtoms.co.uk) or similar approved securely nailed at a

point 50mm from the top of the stake to ensure no rubbing or excessive movement. The plant shall be well firmed, with the soil level 10mm above nursery level to allow

for settlement. Clear away surplus soil and after watering apply a minimum 75mm deep x 300mm diameter collar of 50-75mm grade coarse bark mulch. All tree

species to be fitted with proprietry rabbit guards such as Tubex Ventex (www.tubex.com) (or equal approved).

SAFETY PRECAUTIONS

The landscape sub-contractor is to take all safety precautions to prevent any injury to any persons. The landscape sub-contractor shall comply with the requirements of

All subject to Local Authority approval.

the Health & Safety at Work Act 1974 and current Construction, Design and **RPS** Project Number JSL4323

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Notes 1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that

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B. This drawing should be read in conjunction with all other relevant drawings and specifications.

Drawing Scale Bar (ensure drawing is printed to the correct sheet size)

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In addition to the hazards / risks normally associated with the types of work detailed on this drawing take note below. It is assumed that all works on this drawing will be carried out by a competent contractor, working, where appropriate, to an appropriate method statement.											
Construction risks			Ma	intenan	ce/Clear	ning risks	s Demo	Demolition/Adaption risks			



P02 Wetland Meadow Mix added to bottom of swale.

Description

Birmingham, B5 6ET T: 0121 6228520 E: rpswlv@rpsgroup.com

Client Mr P Worthing

Project Leckwith Quays, Cardiff

Indicative Landscape Planting Schedule and Specification

Status Scale Date Created NTS @A0 Mar 2022 Comment Task Team Information Task Information Manager Author Manager DMB DMB DMB Document Number JSL4323-RPS-XX-EX-DR-L-9008 Project Code - Originator - Zone - Level - Type - Role - Drawing Number

> Suitability Revision S3 P02

rpsgroup.com

DB DB 03:10:22 By Ckd Date