

RPS**Tree and shrub palette (stream corridor)**

Client: Taylor Wimpey Southern Counties

Project: Old Park Farm, Waterloooville (Phase 3 & 4)

Dwg Ref: JSL1864_500 to 504

Doc Ref: JSL1864_552

Status: For Comment

Date: Feb 2012

Revision: .

No	Abbr	Botanical name	Common name	Girth / size	Stock	Density / %
A. Trees						
i. Coniferous trees						
	Lar dec	European Larch	Larix decidua	2.0 - 2.5m	C / SR	
	Pin syl	Scots Pine	Pinus sylvestris	2.0 - 2.5m	C / SR	
ii. Extra heavy standard trees						
	Aln glu	Common Alder	Alnus glutinosa	16-18cm	C / SR / RB	
	Fra exc	Ash	Fraxinus excelsior	16-18cm	C / SR / RB	
	Que rob	Oak	Quercus robur	16-18cm	C / SR / RB	
	Sal alb	White Willow	Salix alba	16-18cm	C / SR / RB	
	Til pla	Broad - Leaved Lime	Tilia platyphyllos	16-18cm	C / SR / RB	
iii. Heavy standard trees						
	Ac cam	Field Maple	Acer campestre	14-16cm	C / SR / RB	
	Aln glu	Common Alder	Alnus glutinosa	14-16cm	C / SR / RB	
	Carp bet Fra	Carpinus betulus 'Frans Fontaine'	Hornbeam	14-16cm	C / SR / RB	
	Fra exc	Ash	Fraxinus excelsior	14-16cm	C / SR / RB	
	Til GS	Small - Leaved Lime	Tilia cordata 'Greenspire'	14-16cm	C / SR / RB	
iv. Standard trees						
	Ac cam	Field Maple	Acer campestre	10-12cm	C / RB	
	Aln glu	Common Alder	Alnus glutinosa	10-12cm	C / RB	
	Bet pen	Silver birch	Betula pendula	10-12cm	C / RB	
	Cra mon	Hawthorn	Crataegus monogyna	8-10cm	C / RB	
	Fra exc	Ash	Fraxinus excelsior	8-10cm	C / RB	
	Pru Pie	Wild Cherry	Prunus avium	10-12cm	C / RB	
	Que rob	Oak	Quercus robur	8-10cm	C / RB	
	Sal fra	Crack Willow	Salix fragilis	10-12cm	C / RB	
	Sor bari	Whitebeam	Sorbus aria	10-12cm	C / RB	
v. Feathered trees						
	Ac cam	Field Maple	Acer campestre	1.75 - 2.0m	C / RB	
	Aln glu	Common Alder	Alnus glutinosa	1.75 - 2.0m	C / RB	
	Bet pen	Silver birch	Betula pendula	1.75 - 2.0m	C / RB	
	Carp bet	Hornbeam	Carpinus betulus	1.75 - 2.0m	C / RB	
	Cra mon	Hawthorn	Crataegus monogyna	1.75 - 2.0m	C / RB	
	Fra exc	Ash	Fraxinus excelsior	1.75 - 2.0m	C / RB	
	Pru Pie	Wild Cherry	Prunus avium	1.75 - 2.0m	C / RB	
	Que rob	Oak	Quercus robur	1.75 - 2.0m	C / RB	
	Sal fra	Crack Willow	Salix fragilis	1.75 - 2.0m	C / RB	
	Sor bari	Whitebeam	Sorbus aria	1.75 - 2.0m	C / RB	
vi. Multi-stemmed trees						
	Aln glu	Common Alder	Alnus glutinosa	2.0 - 3.0m	C / RB	
	Cor ave	Hazel	Corylus avellana	2.0 - 3.0m	C / RB	
	Bet pen	Silver birch	Betula pendula	2.0 - 3.0m	C / RB	
	Sal alb	White Willow	Salix alba	2.0 - 3.0m	C / RB	



No	Abbr	Botanical name	Common name	Girth / size	Stock	Density / %
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Tree & shrub palette continued:-

B. Hedge planting

i. Hedge mix 1 - Field style boundary (all hedgerow trees planted individually)

		Acer campestre	Field Maple	60 - 80cm	B	15%
		Corylus avellana	Hazel	60 - 80cm	B	10%
		Crataegus monogyna	Hawthorn	60 - 80cm	B	25%
		Sambucus nigra	Elder	60 - 80cm	B	10%
		Ligustrum vulgare	Common Privet	60 - 80cm	B	15%
		Prunus spinosa	Blackthorn	60 - 80cm	B	10%
		Rosa canina	Dog Rose	60 - 80cm	B	5%
		Viburnum opulus	Gelder Rose	60 - 80cm	B	10%
		<i>Native hedgerow planted at 6.00m, in double staggered row.</i>				100%

C. Tree and Shrub mix planting

i. Woodland mix 1 (Dry woodland)

Shrubs

		Corylus avellana	Common Hazel	60-80cm	B	10%
		Crataegus monogyna	Common Hawthorn	60-80cm	B	20%
		Euonymus europaeus	Spindle	60-80cm	B	5%
		Ilex aquifolium	Common Holly	60-80cm	B	5%
		Ligustrum vulgare	Wild Privet	60-80cm	B	10%
		Malus sylvestris	Wild Apple	60-80cm	B	5%
		Prunus spinosa	Blackthorn	60-80cm	B	10%
		Rosa canina	Dog Rose	60-80cm	B	5%
		Viburnum opulus	Gelder Rose	60-80cm	B	5%

Trees

		Acer campestre	Field Maple	60-80cm	B	5%
		Fraxinus excelsior	Common Ash	60-80cm	B	2%
		Fraxinus excelsior	Common Ash	8 - 10cm Std	C / RB	3%
		Betula pendula	Silver Birch	60-80cm	B	5%
		Fagus sylvatica	Beech	60-80cm	B	1%
		Sorbus aucuparia	Rowan	60-80cm	B	1%
		Carpinus betulus	Hornbeam	60-80cm	B	1%
		Quercus robur	English Oak	60-80cm	B	2%
		Quercus robur	English Oak	8 - 10cm Std	C / RB	5%
		<i>Woodland mix planted at 1.5m/cs</i>				100%

ii. Woodland mix 2 (Wet woodland)

Shrubs

		Corylus avellana	Common Hazel	60-80cm	B	5%
		Crataegus monogyna	Common Hawthorn	60-80cm	B	5%
		Salix caprea	Goat Willow	60-80cm	B	20%
		Salix cinerea	Grey Willow	60-80cm	B	20%
		Frangula alnus	Alder Buckthorn	60-80cm	B	10%
		Viburnum opulus	Gelder Rose	60-80cm	B	5%
		Salix viminalis	Common Osier	60-80cm	B	10%

Trees

		Acer campestre	Field Maple	60-80cm	B	5%
		Alnus glutinosa	Common Alder	8 - 10cm Std	C / RB	3%
		Fraxinus excelsior	Common Ash	60-80cm	B	2%
		Fraxinus excelsior	Common Ash	8 - 10cm Std	C / RB	2%
		Quercus robur	English Oak	60-80cm	B	3%
		Salix fragilis	Crack Willow	1.0 - 1.75m Ft	C / RB	5%
		Betula pubescens	Downy Birch	60-80cm	B	5%
		<i>Woodland mix planted at 1.5m/cs</i>				100%

iii. Shrub mix 1 (Dry mix)

		Corylus avellana	Common Hazel	60-80cm	B	10%
		Crataegus monogyna	Common Hawthorn	60-80cm	B	20%
		Euonymus europaeus	Spindle	60-80cm	B	5%
		Malus sylvestris	Wild Apple	60-80cm	B	10%
		Ligustrum vulgare	Wild Privet	60-80cm	B	10%
		Prunus spinosa	Blackthorn	60-80cm	B	15%
		Rosa canina	Dog Rose	60-80cm	B	10%
		Viburnum opulus	Gelder Rose	60-80cm	B	15%
		Ilex aquifolium	Common Holly	60-80cm	B	5%
		<i>Shrub mix planted at 1.0m/cs</i>				100%

No	Abbr	Botanical name	Common name	Girth / size	Stock	Density / %
Tree & shrub palette continued:-						
iv. Shrub mix 2 (Wet mix)						
		Rosa canina	Dog Rose	60-80cm	B	15%
		Crataegus monogyna	Common Hawthorn	60-80cm	B	15%
		Salix caprea	Goat Willow	60-80cm	B	20%
		Salix cinerea	Grey Willow	60-80cm	B	20%
		Viburnum opulus	Guelder Rose	60-80cm	B	10%
		Frangula alnus	Alder Buckthorn	60-80cm	B	10%
		Salix viminalis	Common Osier	60-80cm	B	10%
		Shrub mix planted at 1.0m/cs				100%
D. Shrub & Bulb planted areas						
i. Groundcover shrub planting						
	Mix A -	Hedera helix 'Hibernica'	Irish Ivy	2L	C	34%
		Symphoricarpos x chenaultii 'Hancock'	Snowberry	3L	C	33%
		Vinca minor	Dwarf Periwinkle	3L	C	33%
						100%
	Mix B -	Rosa 'grouse'	Groundcover Rose	3L	C	33%
		Lonicera pileata	Privet Honeysuckle	3L	C	33%
		Pyracantha 'Red Cushion'	Firethorn	3L	C	34%
						100%
ii. Specimen shrubs (within shrub planted areas)						
	Ame cana	Amelanchier canadensis	Snowy Mespil	10L	C	
	Cor ave	Corylus avellana	Hazel	10L	C	
	Cor san	Cornus sanguinea	Common Dogwood	10L	C	
	Vib opu	Viburnum opulus	Guelder Rose	10L	C	
iii. Bulb planting (within grass and meadow areas)						
	Mix A -	Crocus vernus (Cul)		5/7cm	Bl	20/m2
	Mix B -	Galanthus nivalis		5/7cm	Bl	20/m2
	Mix C -	Narcissus pseudonarcissus (Cul)		10/12cm	Bl	10/m2
E. Grass and Meadow seed mixes						
i. Amenity grass areas						
	British Seed Houses - A22 Low maintenance seed mix				S	35g/m2
ii. Meadow mix - Dry						
	Dry grassland areas formed via utilising site won soils and the seed bank held within them, or seeded as below.				S	5g/m2
	Manage some areas as hay meadow (mown once/year in August) and some areas as shorter grass (mown once every two weeks in growing season)					
	(If seeding regime is required base on Emorsgate mix EM4)	Achillea millefolium	Yarrow			
		Cardamine pratensis	Cuckooflower			
		Centaurea nigra	Common Knapweed			
		Galium verum	Lady's Bedstraw			
		Lathyrus pratensis	Meadow Vetchling			
		Leucanthemum vulgare	Oxeye Daisy			
		Lotus corniculatus	Bird's-foot Trefoil			
		Lychnis flos-cuculi	Ragged Robin			20% wild flowers
		Plantago lanceolata	Ribwort Plantain			
		Primula veris	Cowslip			
		Ranunculus acris	Meadow Buttercup			
		Rhinanthus minor	Yellow Rattle			
		Silau silaus	Pepper-saxifrage			
		Stachys officinalis	Betony			
		Trifolium pratense	Red Clover (Wild)			
		Agrostis capillaris	Common Bent			
		Alopecurus pratensis	Meadow Foxtail			
		Anthoxanthum odoratum	Sweet Vernal Grass			
		Briza media	Quaking Grass			80%
		Carex hirta	Hairy Sedge			grasses (by weight)
		Festuca rubra ssp commutata	Red Fescue			
		Hordeum secalinum	Meadow Barley			
		Juncus compressus	Compact Rush			

No	Abbr	Botanical name	Common name	Girth / size	Stock	Density / %
<i>Tree & shrub palette continued:-</i>						
iii.	Tussock Grassland (based on Emorsgate mix EM10)				S	5g/m2
	Dry grassland areas alongside shrub planting					
	<i>Tall grassland - patches mown in rotation, once every two years. Use as interface between shrub planting and hay meadow/shorter grass areas (good for invertebrates and reptiles)</i>					
		Achillea millefolium	Yarrow			
		Agrimonia eupatoria	Agrimony			
		Centaurea nigra	Common Knapweed			
		Centaurea scabiosa	Greater Knapweed			
		Daucus carota	Wild Carrot			
		Dipsacus fullonum	Wild Teasel			
		Galium mollugo	Hedge Bedstraw			
		Geranium pratense	Meadow Crane's-bill			
		Hypericum perforatum	Perforate St John's-wort			20% wild flowers
		Lathyrus pratensis	Meadow Vetchling			
		Leucanthemum vulgare	Oxeye Daisy			
		Plantago lanceolata	Ribwort Plantain			
		Silene dioica	Red Campion			
		Torilis japonica	Upright Hedge-parsley			
		Verbascum thapsus	Great Mullein			
		Vicia cracca	Tufted Vetch			
		Vicia sativa ssp nigra	Common Vetch			
		Alopecurus pratensis	Meadow Foxtail			
		Cynosurus cristatus	Crested Dog's-tail			
		Dactylis glomerata	Cock's-foot			
		Deschampsia caespitosa	Tufted Hair-grass			
		Festuca arundinacea	Tall Fescue			80%
		Festuca pratensis	Meadow Fescue			grasses (by weight)
		Festuca rubra ssp commutata	Red Fescue			
		Holcus lanatus	Yorkshire Fog			
		Juncus compressus	Compact Rush			
		Juncus inflexus	Hard Rush			
iv.	Flood Meadow (based on Emorsgate mix EM8)				S	5g/m2
	Periodically inundated. Wet (flooded with a few cm of water) in winter, surface dry in summer though water table remains within 15-20cm of surface					
	<i>Managed as summer hay meadow with equivalent of spring and autumn grazing, as follows. Once grass begins to grow in spring, mow regularly to keep grass to 10-15cm high until end of April. Then leave grass to grow tall as a hay meadow, and cut a hay crop in August. After that, continue to mow regularly to keep grass at 10-15cm high. Stop mowing when weather turns cold and grass stops growing. Resume in spring as before.</i>					
		Achillea millefolium	Yarrow			
		Cardamine pratensis	Cuckooflower			
		Centaurea nigra	Common Knapweed			
		Filipendula ulmaria	Meadowsweet			
		Galium verum	Lady's Bedstraw			
		Leucanthemum vulgare	Oxeye Daisy			
		Lotus pedunculatus	Greater Bird's-foot Trefoil			
		Lychnis flos-cuculi	Ragged Robin			
		Plantago lanceolata	Ribwort Plantain			20% wild flowers
		Primula veris	Cowslip			
		Prunella vulgaris	Selfheal			
		Ranunculus acris	Meadow Buttercup			
		Rhinanthus minor	Yellow Rattle			
		Rumex acetosa	Common Sorrel			
		Sanguisorba officinalis	Great Burnet			
		Silene acaulis	Pepper-saxifrage			
		Stachys officinalis	Betony			
		Vicia cracca	Tufted Vetch			
		Agrostis capillaris	Common Bent			
		Alopecurus pratensis	Meadow Foxtail			
		Anthoxanthum odoratum	Sweet Vernal Grass			
		Briza media	Quaking Grass			
		Carex acutiformis	Lesser Pond Sedge			
		Carex pendula	Pendulous Sedge			
		Carex riparia	Greater Pond Sedge			80%
		Cynosurus cristatus	Crested Dog's-tail			grasses (by weight)
		Deschampsia caespitosa	Tufted Hair-grass			
		Festuca rubra ssp commutata	Red Fescue			
		Juncus compressus	Compact Rush			
		Juncus inflexus	Hard Rush			

No	Abbr	Botanical name	Common name	Girth / size	Stock	Density / %
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Tree & shrub palette continued:-

v. Waters Edge (based on Emorsgate mix Ep1)

Flower, sedge and rush rich vegetation on soil that is permanently boggy. Zone at edge of ponds, ditches and streams.

i.e. the water level is such that a wellie would sink into the mud by several cm in winter, and 1-2cm in high summer

Manage by cutting once a year in late August (may need to use hand-held trimmer to avoid sinking into soil)

S 5g/m2

Achillea ptarmica	Sneezewort		
Alisma plantago-aquatica	Water-plantain		
Angelica sylvestris	Wild Angelica		
Caltha palustris	Marsh Marigold		
Cardamine pratensis	Cuckooflower		
Eupatorium cannabinum	Hemp-agrimony		
Hypericum tetrapterum	Square-stalked St John's-wort		
Iris pseudacorus	Yellow Iris		
Lotus pedunculatus	Greater Bird's-foot Trefoil		
Lychnis flos-cuculi	Ragged Robin		
Lycopus europaeus	Gipsywort		
Lythrum salicaria	Purple Loosestrife		
Pulicaria dysenterica	Fleabane		
Scutellaria galericulata	Skullcap		
Thalictrum flavum	Common Meadow-rue		
Veronica beccabunga	Brooklime		
Vicia cracca	Tufted Vetch		
Agrostis capillaris	Common Bent		
Alopecurus pratensis	Meadow Foxtail		
Anthoxanthum odoratum	Sweet Vernal Grass		
Briza media	Quaking Grass		
Carex acutiformis	Lesser Pond Sedge		
Carex pendula	Pendulous Sedge		
Carex riparia	Greater Pond Sedge		
Cynosurus cristatus	Crested Dog's-tail		
Deschampsia caespitosa	Tufted Hair-grass		
Festuca rubra ssp commutata	Red Fescue		
Juncus inflexus	Hard Rush		

20% wild
flowers

80%
grasses (by
weight)

Plants rooted in soil where the water table is at the surface for much of the year

(i.e. a wellie would sink a few cm even in summer) Manage by occasional strimming to prevent scrub encroachment

G. Marginal and Aquatic planting

Species in orange are those that are currently present in Old Park Farm stream. At least some of the plants should be sourced from the section of OPF stream that is to be diverted.

i. Swamp / marginal planting

Plants rooted in soil where the water table is at the surface for much of the year

(i.e. a wellie would sink a few cm even in summer) Manage by occasional strimming to prevent scrub encroachment

Apium nodiflorum	Fool's-water-cress	P7 or P9	C	5%
Berula erecta	Lesser Water-parsnip	P7 or P9	C	5%
Cardamine flexuosa	Wavy Bitter-cress	P7 or P9	C	5%
Epilobium hirsutum	Great Willowherb	P7 or P9	C	5%
Filipendula ulmaria	Meadowsweet	P7 or P9	C	5%
Iris pseudacorus	Yellow Iris	P7 or P9	C	10%
Lotus pedunculatus	Greater Bird's-foot Trefoil	P7 or P9	C	5%
Lycopus europaeus	Gipsywort	P7 or P9	C	5%
Lythrum salicaria	Purple Loosestrife	P7 or P9	C	5%
Mentha aquatica	Water Mint	P7 or P9	C	5%
Persicaria hydropiper	Water-pepper	P7 or P9	C	5%
Persicaria maculosa	Redshank	P7 or P9	C	5%
Scrophularia auriculata	Water figwort	P7 or P9	C	5%
Sparganium erectum	Branched Bur-reed	P7 or P9	C	5%
Veronica beccabunga	Brooklime	P7 or P9	C	5%
Carex riparia	Greater Pond Sedge	P7 or P9	C	10%
Phalaris arundinacea	Reed Canary-grass	P7 or P9	C	10%
				100%

ii. Shallow water / ledge plants

Plants rooted in mud on a ledge 25cm below expected surface of water through most of year

Manage by occasional strimming to prevent scrub encroachment

Apium nodiflorum	Fool's-water-cress	P7 or P9	C	10%
Hippuris vulgaris	Mare's-tail	P7 or P9	C	10%
Myosotis scorpioides	Water Forget-me-not	P7 or P9	C	15%
Polygonum amphibium	Amphibious Bistort	P7 or P9	C	15%
Potamogeton pectinatus	Fennel-like Pondweed	P7 or P9	C	15%
Ranunculus lingua	Greater Spearwort	P7 or P9	C	15%
Veronica beccabunga	Brooklime	P7 or P9	C	20%
				100%

Notes: Species listed above are subject to commercial availability / viability

Any alterations to species, stock sizes or planting densities shall only be with prior consent of the CA / LA

Stock Abbreviations:

C = Container grown	S = Seeded
SR = Spring ringed	T = Turfed
RB = Root balled	Cl = Cell grown
B = Bagged	Bl = Bulb