

Vegetation protection
All existing vegetation to be retained is to be protected in line with the recommendations of Arboricultural Report. Protection shall remain in place until site works are complete.

Tree and Shrub Planting
Site Preparation for tree and shrub planting
Existing vegetation to be removed by mowing or shallow ploughing. Soil - Existing soil to be used. The existing soils (subsoil and topsoil) are expected to be adequate for planting. Soil to be rotavated to a minimum depth of 450mm, raked and graded prior to planting.

Planting Generally:
Planting shall be carried out in accordance with BS4428:1989 General Landscape Operations.
Plant material shall be provided in accordance with BS3936 Part 1:1992 Nursery Stock Specification For Trees and Shrubs.
Deciduous stock to be planted from 1st November to 31st March. Allow for earth to new banks to settle before planting. Do not plant if ground is water logged or frozen.
Clear all weeds and treat with suitable herbicide prior to planting. Care to be taken with clearance and any herbicide use to area adjacent to existing hedges/trees or water bodies. Prevent roots from drying out prior to planting. Avoid planting in very dry, windy conditions to avoid root dessication.

Structural Woodland: Objectives
Woodland and woodland edge blocks will be planted adjacent to existing and new hedgerows to provide structural diversity, visual screening and ecological connectivity, whilst contributing to the site's BNG unit generation. Over time the planted blocks will integrate with the hedgerow network to form a cohesive woody habitat structure across the site.

Species Mix & Density
Trees and shrubs to be planted as bare-root whips (1+1 transplants) of local provenance using the scheduled woodland edge mix, planted in informal groups of 3, 5 or 7 plants of the same species to create a naturalistic structure:
Planting density 2 plants/m² to allow sufficient space for natural development and reduce early competition between plants.

Ground Preparation
Prior to planting, existing vegetation to be removed by mowing or shallow ploughing. Compacted soils to be broken up by mechanical scarification to improve rooting conditions. Topsoil to be retained on site wherever possible.

Planting (October/March)
To be carried out during the dormant season in suitable conditions, avoiding frozen or waterlogged ground. Whips to be notch or pit planted with soil firmed in around roots to eliminate air pockets. All new transplants to be watered in immediately after planting and continued through the first two growing seasons during dry spells to ensure good establishment.

Tree & Hedge Protection
Individual spiral guards (min. 600mm) and canes to be fitted to all whips to protect against rabbits and voles. Larger tree guards (min. 1.2m, biodegradable) to be used where deer or livestock pressure is present. Hedgerow to be protected by timber post and rail fencing to one side. Guards and stakes to be inspected annually and removed once plants are sufficiently established (typically 5 - 7 years)

Establishment Management (Years 15)
1m weed-free strip or mulch mat to be maintained around each whip to reduce competition. Failed plants to be replaced in the following planting season; target survival rate >90% by Year 3. Invasive species to be monitored and controlled throughout the establishment period. No cutting of planted whips during establishment except to remove damaged or dead material.

Long-term Management
Once established, the woodland will be managed to develop a diverse structure of shrub layer, understory and canopy. Selected trees to be allowed to grow on as standards. Woodland edge habitat to be managed to maintain a gradual transition between open grassland, hedgerow and woodland, maximising habitat diversity and wildlife value.

Hedgerow Creation (H6 & H7):
Plant hedgerow mix in groups of 3, 5 and 7 no. plants of same species, in double staggered row, 5 plants per linear metre.
Water in new transplants immediately after planting and continue to water as necessary through the first two growing seasons, during dry spells, to ensure good establishment.
Plant protection: spiral guard and cane, min. 600mm high, where necessary. Hedgerow to be protected by timber post and rail fencing to one side.
Protection: - Avoid damage by rabbits/rodents with plastic tube tree guard and stake, min. 0.6m high, where necessary.
Planting (October/December)
Bare-root whips planted at 5 plants/m in a double staggered row. Notch planted with a spade in zig-zag lines at 0.6m intervals. Not to be cut for the first 5 years.
Trees within hedgerow
Standard trees (1.5 to 2m height) planted at 30m intervals (approx. 6 trees per 170m hedge). Bare-root or cell-grown, planted in excavated pits with biodegradable tree guards. Set back from the hedge line and fenced separately for long-term management as standards.
Stock Fencing
Installed either side of the hedge, set back minimum 2m from the base to allow growth, maintenance access and machinery clearance.
Existing hedgerow management and proposed hedgerow post establishment management:
Long-term Management (January/February): Cut on rotation every 3 years on alternate sides using a tractor-mounted flail. Minimum height and width of 3m. Basal bramble and scrub to be retained to provide foraging and nesting habitat. Neat hedgerows to be avoided.

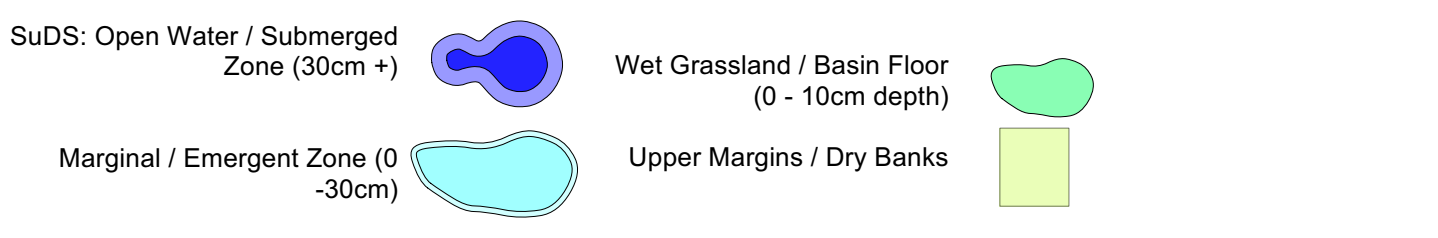
Hedgerow planting mix.					
Hedgerow planted in double staggered row at 5 plants per lin.m.					
		%	type	stock	height
Prunus spinosa	Blackthorn	25%	BR	1+1	40-60cm
Crataegus monogyna	Hawthorn	50%	BR	1+1	40-60cm
Salix caprea	Goat willow	10%	BR	1+1	40-60cm
Quercus petraea	Oak	5%	BR	1+1	40-60cm
Viburnum opulus	Guelder Rose	10%	BR	1+1	40-60cm
Quercus robur	Oak		plant @ 30m c/c	BR	std, 8 - 10cm girth 1.5m - 2m

Standard Tree Planting
Plant in pit twice the width of root spread and 1.5 times depth of root system. Short double stake and tie. Plant protection : 75mm bark mulch and biodegradable non plastic tree guard and stake.
Avoid damage by rabbits/rodents with plastic tube tree guard and stake, min. 0.6m high, where necessary.
Please note: mesh guard to be used as alternative to spiral/tube shelters for evergreen species.

Tree Maintenance Generally
Weed Control shall be carried out in accordance with BS4428:1989 General Landscape Operations as follows:
Bark mulch to be maintained to a minimum depth of 50mm, in strict accordance with manufacturer's instructions. Keep minimum 1m square area around plants clear of weeds/grass.
Biodegradable matting to be used on planted banks with a slope steeper than 1:3.
Water in new plants immediately after planting and continue to water as necessary through the first two growing seasons, especially during dry spells, to ensure good establishment.
Regularly inspect newly planted areas and remove weeds until new plants are well established (2-3 growing seasons). Following planting establishment checks will be undertaken annually during August/September for a period of 5 years. Any plants found to be dead, dying or diseased shall be removed and replaced as per the above specification during the following planting season.

SuDS DETENTION BASIN ECOLOGICAL PLANTING
The basin will be designed as a naturalistic multifunctional feature delivering surface water attenuation alongside biodiversity gain, in accordance with the DEFRA National SuDS Standards (2025) and CIRIA SuDS Manual C753. The basin will provide a range of wetland habitat types through varied water depth zones, naturalistic margins and diverse native planting.
Basin Profile
Basin to be excavated and created in dry conditions. Basin to be lined with 100mm depth subsoil from excavation, clear of debris and stones. No on site topsoil to be used. Gently graded side slopes (no steeper than 1:3) with a shallow littoral shelf (0300mm), seasonally wet basin floor and dry upper margins transitioning to rough grassland. A sediment forebay to be provided at the inlet.

Planting
All planting to use native P9 plug plants sourced from a UK nursery, planted in informal drifts.
Marginal Planting - Pond perimeter up to 30cm water depth: Top subsoil with gravel to keep the soil in place. Create local bog bed to allow water to soak in and plant directly into the ground. For plants provided in basket, place the basket on the shelf, ensuring that the leaves are above water.
Emergent planting up to 60cm water depth: Plants supplied in basket lined with hessian, containing aquatic compost and gravel. Basket to be lowered onto ledge.
Floating and Oxygenating plants: Remove damaged leaves from plant and place directly onto the surface of the pond. Keep stems wet until planted. Drop stems into pond at 45cm depth and deeper.
Management
Vegetation to be managed on rotation outside the bird nesting season. No pesticides, herbicides or fertilisers to be used within or adjacent to the basin. Invasive species to be monitored and controlled throughout. Long-term management to be secured through the Biodiversity Gain Plan for a minimum of 30 years.



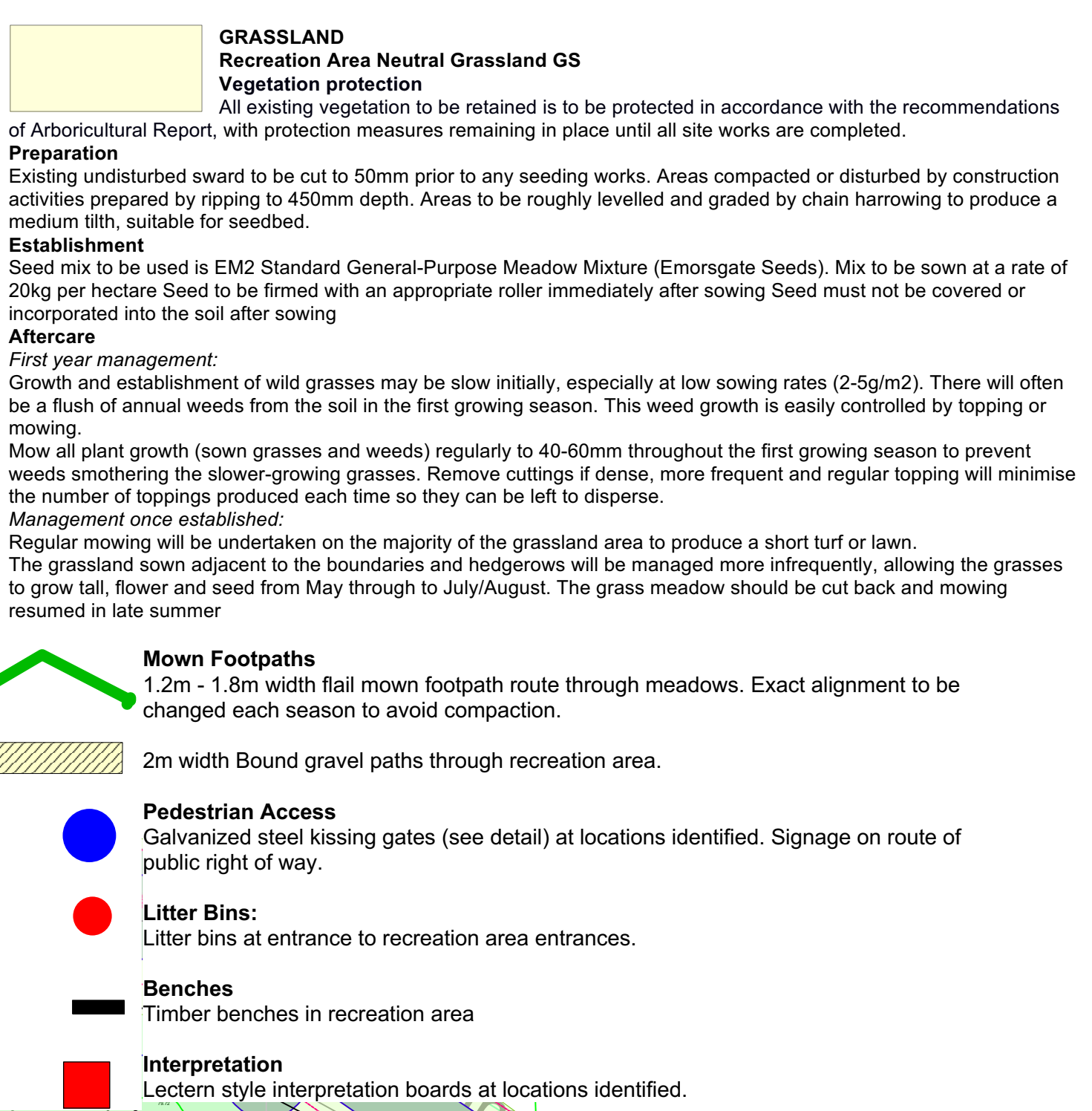
Aquatic planting areas: as scheduled					
Aquatic Planting					
Open water / Submerged Zone			Stock type	stock type	planting density
Ranunculus aquatilis	Water Crowfoot	BR	weighted bunch	5 stems per bunch	2 bunches / sqm
Polamogeton pectinatus	fennel Pondweed	BR	weighted bunch	5 stems per bunch	2 bunches / sqm
Myriophyllum verticillatum	Whorled Millfoil	BR	weighted bunch	5 stems per bunch	2 bunches / sqm
Marginal / Emergent Zone (0 - 300mm)					
Iris pseudacorus	Yellow Flag	CG		9cm plug (P9)	4/sqm
Caltha palustris	Marsh Marigold	CG		9cm plug (P9)	4/sqm
Carex riparia	Greater pond sedge	CG		9cm plug (P9)	4/sqm
Carex acutiformis	Lesser Pond Sedge	CG		9cm plug (P9)	4/sqm
Phragmites australis	Common Reed	CG		9cm plug (P9)	4/sqm
Eleocharis palustris	Common Spikerush	CG		9cm plug (P9)	4/sqm
Veronica beccabunga	Brooklime	CG		9cm plug (P9)	4/sqm
Menhtha aquatica	Water Mint	CG		9cm plug (P9)	4/sqm
Rorripa nasturtium - aquaticum	Water Cress	CG		9cm plug (P9)	4/sqm
Wet Grassland / Basin Floor					
Emorsgate EM8 wetland grass mixture sown at 40kg/ha. interplanted with wildflower plugs					
Juncus effusus	Soft Rush	CG		9cm plug (P9)	4/sqm
Juncus articulatus	Jointed Rush	CG		9cm plug (P9)	4/sqm
Lychnis flos-cuculi	Ragged Robin	CG		9cm plug (P9)	4/sqm
Upper Margins / Dry Banks					
Emorsgate EM8 wetland grass mixture sown at 40kg/ha.					

GRASSLAND
Recreation Area Neutral Grassland GS
Vegetation protection
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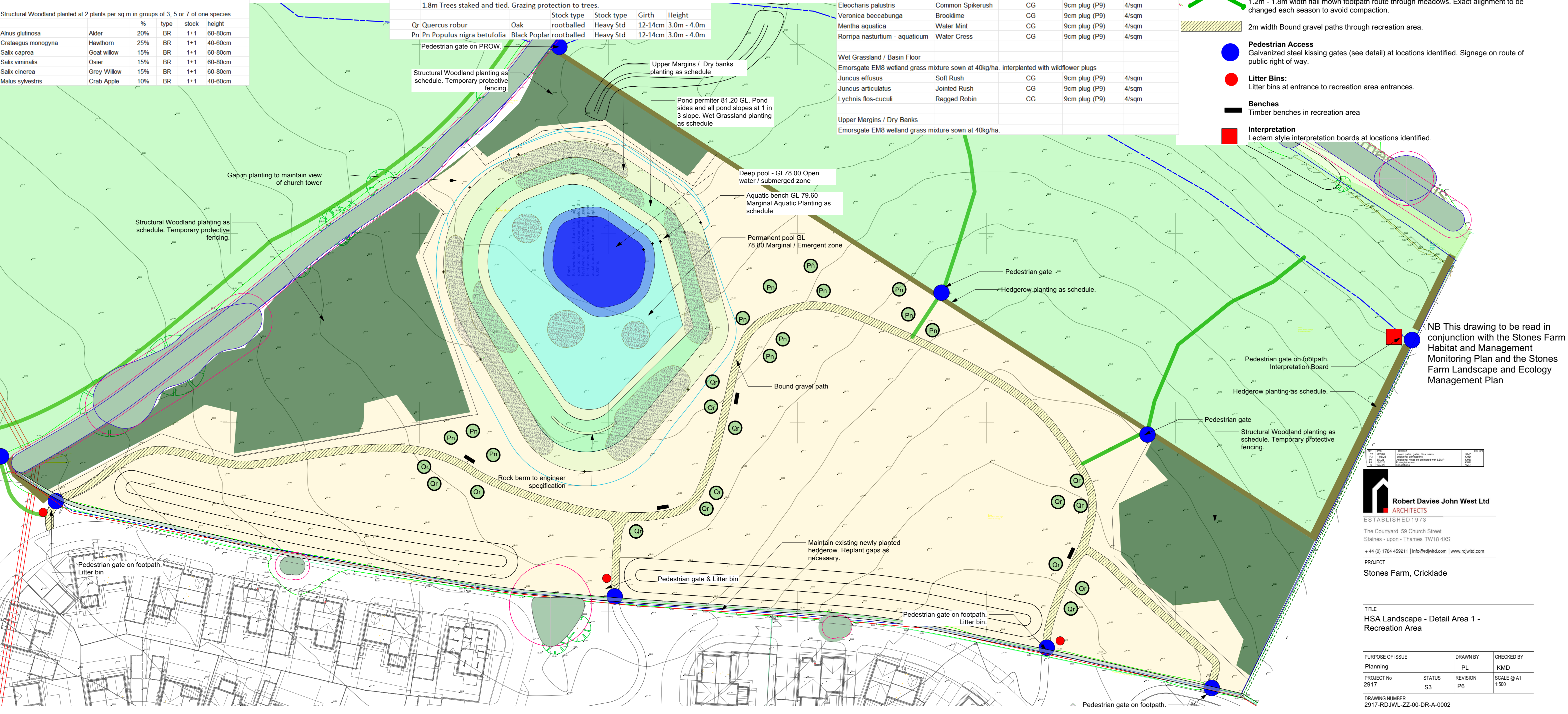
Preparation
Existing undisturbed sward to be cut to 50mm prior to any seeding works. Areas compacted or disturbed by construction activities prepared by ripping to 450mm depth. Areas to be roughly levelled and graded by chain harrowing to produce a medium tilth, suitable for seeded.

Establishment
Seed mix to be used is EM2 Standard General-Purpose Meadow Mixture (Emorsgate Seeds). Mix to be sown at a rate of 20kg per hectare Seed to be firmed with an appropriate roller immediately after sowing Seed must not be covered or incorporated into the soil after sowing

Aftercare
First year management:
Growth and establishment of wild grasses may be slow initially, especially at low sowing rates (2-5g/m2). There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing.
Mow all plant growth (sown grasses and weeds) regularly to 40-60mm throughout the first growing season to prevent weeds smothering the slower-growing grasses. Remove cuttings if dense, more frequent and regular topping will minimise the number of toppings produced each time so they can be left to disperse.
Management once established:
Regular mowing will be undertaken on the majority of the grassland area to produce a short turf or lawn.
The grassland sown adjacent to the boundaries and hedgerows will be managed more infrequently, allowing the grasses to grow tall, flower and seed from May through to July/August. The grass meadow should be cut back and mowing resumed in late summer

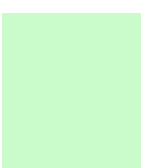
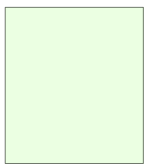
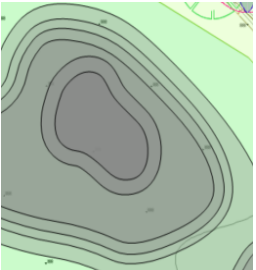
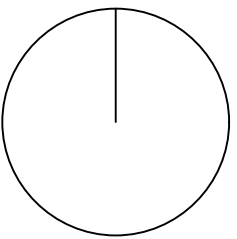
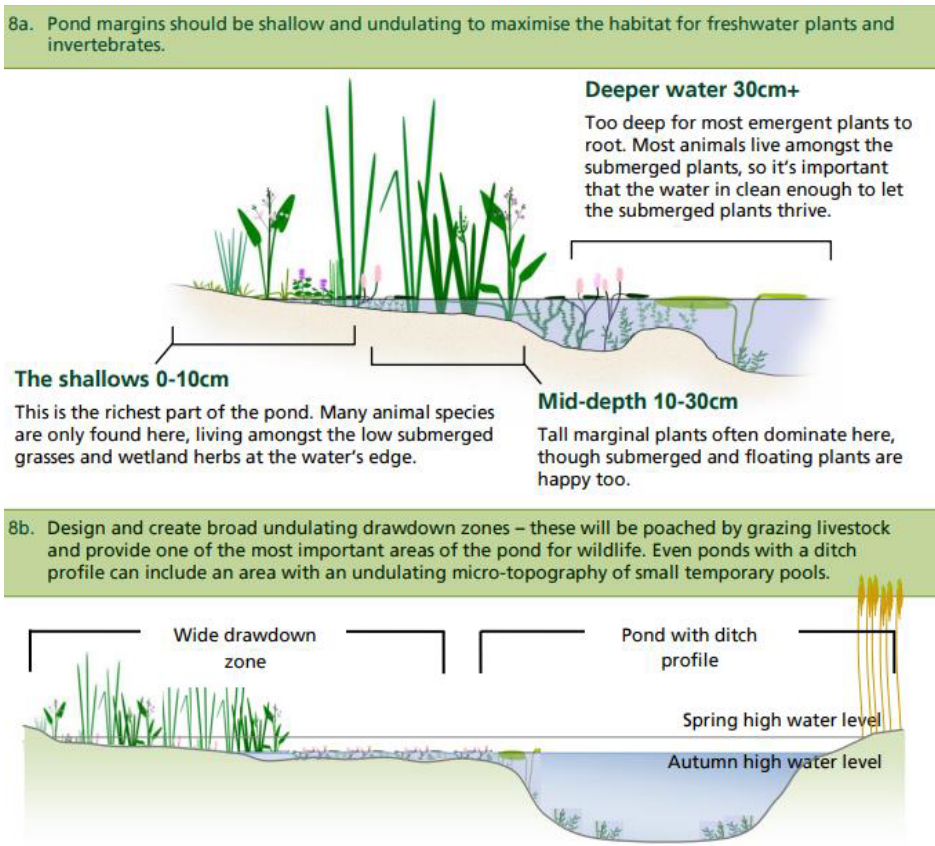


Structural Woodland planted at 2 plants per sq.m in groups of 3, 5 or 7 of one species.					
		%	type	stock	height
Alnus glutinosa	Alder	20%	BR	1+1	60-80cm
Crataegus monogyna	Hawthorn	25%	BR	1+1	40-60cm
Salix caprea	Goat willow	15%	BR	1+1	60-80cm
Salix viminalis	Osier	15%	BR	1+1	60-80cm
Salix cinerea	Grey Willow	15%	BR	1+1	60-80cm
Malus sylvestris	Crab Apple	10%	BR	1+1	40-60cm



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PROJECT
Stones Farm, Cricklade

TITLE HSA Landscape - Detail Area 1 - Recreation Area			
PURPOSE OF ISSUE Planning	DRAWN BY PL	CHECKED BY KMD	
PROJECT No 2917	STATUS S3	REVISION P6	SCALE @ A1 1:500
DRAWING NUMBER 2917-RD/JWL-ZZ-00-DR-A-0002			



Small ponds to be allowed to colonise naturally with vegetation: Pond locations to be confirmed on site by a qualified ecologist to avoid water vole burrows and sensitive riparian habitat. Ponds to be excavated to a central depth of 1.5m with varied shallow margins (1:1.5-1:2 battered slopes). Ponds to accommodate seasonal water level fluctuation. Ponds to be managed by grazing as part of GS1 management regime.

A minimum 10m buffer will be established along the riverbank, fenced to exclude livestock and protect the riparian corridor from agricultural management. Temporary (electric) fencing will be installed along the River Thames to create the riparian buffer and control livestock access.
The buffer will be managed through natural regeneration with minimal intervention, allowing tall grassland, wetland vegetation and riparian scrub to develop naturally over time. This will provide habitat for water vole, otter, birds, amphibians and invertebrates, improve bank stability and enhance ecological connectivity. Intervention will be limited to control of invasive species or excessive scrub encroachment where it threatens habitat diversity.

Habitat Support Area: Cricklade Meadow GS1
Vegetation protection
All existing vegetation to be retained is to be protected in line with the recommendations of Arboricultural Report. Protection shall remain in place until site works are complete.
HSA Preparation
Livestock to be used to reduce sward to 35cm, and to achieve approx 50% bare ground. The aim of the pre-works grazing is to reduce the height of the vegetation and to create bare areas of ground. Avoid poaching, with livestock removed in wet conditions. If instructed by Appointed Ecologist, additional areas of bare ground to be created through scarification with a disc/chain harrow.
HSA Establishment Year 1
Where available, green hay from a local donor site (e.g. Blakehill Farm NR) to be cut at peak flowering (late June/July), transported within 24 hours and spread thinly across prepared areas. If no donor site is available, Emorsgate EM3 Special General-Purpose Meadow Mixture to be slot-sown in autumn at 20kg/ha. Cattle will be put out on the field once the seed is sown to tread the seed into the soil; Cattle will be put out on the field in the early spring and late summer to control the growth of vigorous grasses.
Annual Management, Year 2 onwards
Establishment and grassland management to be carried out by grazing, subject to detail grazing plan as approved LEMP. Spring: cattle to graze at 0.5 Livestock Units (LU)/ha to reduce dominant growth. April/July: Cattle removed and fields shut up for flowering and seed shed. Mid-July/August: hay cut from inside outwards, tedded, baled and removed. 5m field margin buffers retained for invertebrates; cut bi-annually in autumn if required. Post-cut: aftermath grazing to control vigorous grasses

Existing hedgerows to be retained.
Existing hedgerow management and proposed hedgerow post establishment management: Long-term Management (January/February): Cut on rotation every 3 years on alternate sides using a tractor-mounted flail. Minimum height and width of 3m. Basal bramble and scrub to be retained to provide foraging and nesting habitat. Neat hedgerows to be avoided.

Mown Footpaths
1.2m - 1.8m width flail mown footpath route through meadows. Exact alignment to be changed each season to avoid compaction.
Route of public right of way managed by mowing route through HSA.

Pedestrian Access
Galvanized steel kissing gates (see detail) at locations identified. Signage on route of public right of way.
Interpretation
Lectern style interpretation boards at locations identified.

NB This drawing to be read in conjunction with the Stones Farm Habitat and Management Monitoring Plan and the Stones Farm Landscape and Ecology Management Plan

PL	06/08	initial plan, gates, bins, walls	KMD	06/08
PL	11/08	additional annotations	KMD	11/08
PL	17/08	footpath signs coordinated with LEMP	KMD	17/08
PL	17/08	amendations	KMD	17/08

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PROJECT
Stones Farm, Cricklade

TITLE HSA Landscape - Detail Area 2 - HSA Area, ponds			
PURPOSE OF ISSUE Planning		DRAWN BY PL	CHECKED BY KMD
PROJECT No 2917	STATUS S3	REVISION P6	SCALE @ A1 1:500
DRAWING NUMBER 2917-RDJWL-ZZ-00-DR-A-0003			