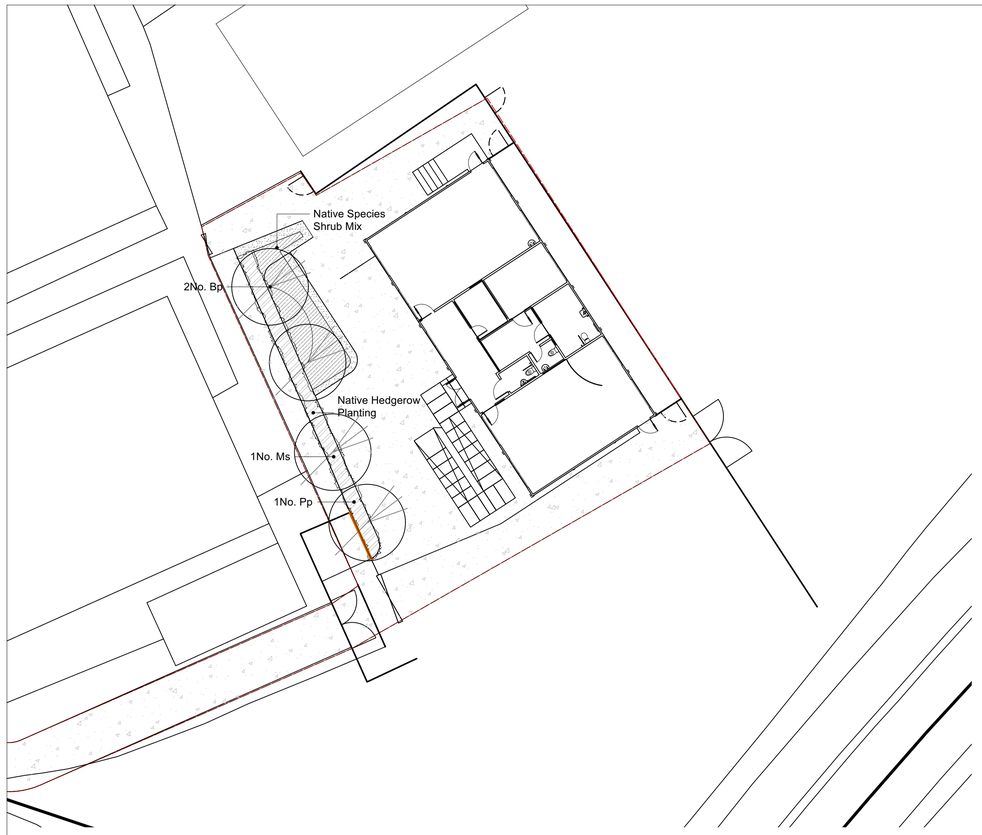

Proposed Meadow Mix - Emorsgate EM3 - Special General Purpose Meadow Mixture		
% of mix	**Species**	**Common name**
Wildflowers (20% of overall mix)		
0.5	Achillea millefolium	Yarrow
2.4	Centaurea nigra	Common knapweed
1	Centaurea scabiosa	Greater knapweed
0.6	Daucus carota	Wild carrot
0.6	Filipendula ulmaria	Meadowsweet
0.8	Galium verum	Lady's bedstraw
1.5	Knautia arvensis	Field scabious
0.3	Leontodon hispidus	Rough hawkbit
1	Leucanthemum vulgare Oxeye	Daisy
1	Lotus corniculatus	Bird's-foot trefoil
0.1	Origanum vulgare	Wild marjoram
1	Plantago lanceolata	Ribwort plantain
0.5	Plantago media	Hoary plantain
1.8	Poterium sanguisorba	Salad burnet
0.5	Primula veris	Cowslip
2	Ranunculus acris	Meadow buttercup
1	Rhinanthus minor	Yellow rattle
0.6	Rumex acetosa	Common sorrel
1	Silene dioica	Red campion
0.2	Silene flos-cuculi	Ragged robin
1	Silene vulgaris	Bladder campion
0.1	Trifolium pratense	Wild red clover
0.5	Vicia cracca	Tufted vetch
Grasses (80% of overall mix)		
8	Agrostis capillaris	Common bent
40	Cynosurus cristatus	Crested dog's-tail
28	Festuca rubra	Slender-creeping red-fescue
	Phleum bertolonii	Smaller cat's-tail

Planting Schedule

Trees

Abb	Species	Common Name	Root Stock	Height	Girth	Specification	Quantity	Notes*
Bp	Betula pendula	Silver birch	BR	2.0 - 2.5m	6 - 8cm	Light Standard	2	Lower water demand. Native. 3-5m crown spread after 10 years.
Ms	Malus sylvestris	European crab apple	BR	2.0 - 2.5m	6 - 8cm	Light Standard	1	
Pp	Prunus padus	Bird cherry	BR	2.0 - 2.5m	6 - 8cm	Light Standard	1	
*Source: Woodland Trust https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/a-z-of-british-trees/								
** Trees are expected to have reached 2/3 of their maximum height in 25 years								

Native Species Shrub Mix

Abb	Species	Common Name	Root Stock	Height	Spacing	Quantity		
Csa	Cornus sanguinea	Common dogwood	BR	40 - 60cm	1/m²	2		
Cav	Corylus avellana	Common hazel	BR	40 - 60cm	1/m²	5		
Cmo	Crataegus monogyna	Common hawthorn	BR	40 - 60cm	1/m²	3		
Ia	Ilex aquifolium	Common holly	BR	40 - 60cm	1/m²	2		
Lv	Ligustrum vulgare	Wild privet	BR	40 - 60cm	1/m²	2		
Psp	Prunus spinosa	Blackthorn	BR	40 - 60cm	1/m²	4		
Rca	Rosa canina	Dog-rose	BR	40 - 60cm	1/m²	3		
Sck	Salix caprea 'Kilmarnock'	Willow	BR	40 - 60cm	1/m²	3		
Sn	Sambucus nigra	Elder	BR	40 - 60cm	1/m²	3		
Vo	Viburnum opulus	Guelder-rose	BR	40 - 60cm	1/m²	3		
Total lenght of hedge is 21.5m. Hedge width is 1m.								

Native Hedgerow Planting

Abb	Species	Common Name	Root Stock	Height	Spacing	% of mix	Quantity	
Cm	Crataegus monogyna	Hawthorn	BR	80 - 100cm	7 l/m	50	76	
Pp	Prunus padus	Bird Cherry	BR	80 - 100cm	7 l/m	10	15	
Ac	Acer campestre	Field Maple	BR	80 - 100cm	7 l/m	10	15	
Rc	Rosa canina	Dog Rose	BR	80 - 100cm	7 l/m	10	15	
Ca	Corylus avellana	Hazel	BR	80 - 100cm	7 l/m	10	15	
Ps	Prunus spinosa	Blackthorn	BR	80 - 100cm	7 l/m	10	15	

Proposed Native Species Rich Grassland and Wildflower Mix

A species-rich grassland will be sown that will be managed for the benefit of wildlife, as a source of food and shelter for small mammals, birds and invertebrates. The aim is to establish a grassland sward with greater ecological value than the existing land. Ground preparation is necessary to establish a clean seed bed into which a grass seed mix can be sown.

In order to establish grassland sward:

- Seed mix will be directly sowing a seed mix into the prepared ground by machine or by hand at a rate of 40kg/ha (4g/m^2);
- Once sown, the seed should be lightly pressed into the seedbeed by roling or treading.
- Autumn (August to mid-September) sowing is preferred because this favours species that germinate in autumn and species that require a period of cold to break their dormancy before they germinate in spring.
- Sowing must take place when conditions are warm and moist, and so winter and drought periods must be avoided.

The proposed Emorsgate EM3 — Special General Purpose Meadow Mixture (or similar approved) will be sown due to its diverse range of species and will be suitable for adapting to a range of soil and light conditions.

Landscape Maintenance Schedule								
Operation	**Target**	**Frequency per annum**	**Season**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5 Onwards**
Native Grassland and Wildflower Mix	Vigorous and healthy establishment							
Year 1, post seeding, mow 4 times per year to maintain height of 40-60mm	A heathy, dense sward	4	April - October					
Year 2 onwards cut biannually in August and October. After flowering in August take a hay out to a height of 50mm, and remove arisings. Cut again in October to a height of 50mm	Reduce fertility and encourage diverse sward	1	August & October					
Monitoring of grass growth and species			June					
Control of pernicious weeds	Maintain sward							
Check plant survival and replace if necessary.	Trees (Standard and Feathered)	As required	All year					
Check mulching depth and reapply to a depth of 75mm.		1	Spring					
Formatively pruning young trees and recommended management of mature tree if necessary.		As required	Winter / mid-Summer					
Check tree stake and tie.		1	Summer		Remove once tree can stand unsupported without bending or shifting in the ground			
*Irrigation		As required	Spring to Autumn					
Weeding.		As required	Spring to Autumn					
Visual tree inspection		As required	All Year					
Check plant survival and replace if necessary.	Hedgerows and native shrub planting	As required	All Year					
Formatively prune hedgerows, check for nesting birds if undertaken inside nesting seasons.		1	September to February					
Weeding		As required	Spring to Autumn					
Visual inspection		As required	All Year					
*Irrigation.		As required	Spring to Autumn					
Tree guards (Ecowrap)	Trees	As required	All year	Replace if damaged	Replace if damaged			
Remove all arising from site once working operation is complete	Arisings	As required	All Year					
Remove litter and rubbish from public open areas.	Litter	As required	All Year					
* Water requirement will be dependent on species, soil types and weather conditions. Water as necessary to ensure establishment and continued thriving of planting. If planting								
All areas:								
Invasive non-native species to be controlled by chemical or mechanical means	Eradication where practicable	As required	April - September					
The landscape contractor shall be responsible for the soft landscape maintenance 1 year post planting. After which the school maintenance team will assume responsibility.								

Landscape Methodology

Existing vegetation
- Refer to BS 4428:1989 *Code of practice for general landscape operations*, and BS 5837:2012 *Trees in relation to design, demolition and construction.*
- Existing vegetation that is to be retained should be protected from damage with 1.2m cleft chestnut fencing or scaffold frameworks as specified in BS 5837:2012. This should be maintained in good and effective condition until work is completed.
- No fires will be permitted within 20m of the crown of any tree.
- Any liquid materials spilled on site must be immediately cleared up and removed from the site.

Preparation of planting areas
Refer to BS 4428:1989; BS8545:2014 *Trees: from nursery to independence in the landscape recommendations* and BS 3882:2015 *Specification for topsoil.*
Measure from existing fixed points. Check that all setting out conforms to the plan before cultivation and planting works are carried out. Failure to do so may result in rejection of the work by the Landscape Architect and may require amendment at the contractor's expense. Any substitutions to the landscape scheme, once formally agreed, will only be made following revision and subsequent formal agreement by the Local Planning Authority.

Subsoil
Subsoil shall be locally sourced so as to have similar structure and pH levels to that of existing subsoil on site. This is to help protect buried archaeological deposits particularly those containing organic matter. Subsoil should conform with BS 8601:2013. Subsoil to be free from toxic substances, weed seeds, plastic, metals etc. Subsoil shall be spread to a minimum of 450mm below new shrub areas. Subsoil to be spread by hand or using a back-acting track vehicle to cause minimum compaction and loss of soil structure. No soil handling shall be undertaken when the soil is wetter than the plastic limit. Wildflower mix to be sowed direct on to low-nutrient soil (Subsoil) Minimum 200mm

Topsoil
Topsoil in order of preference; Site sourced topsoil, Site-made topsoil, Imported topsoil to BS 3882. Imported topsoil shall be locally sourced so as to have similar structure and pH levels to that of existing subsoil on site. This is to help protect buried archaeological deposits particularly those containing organic matter. Imported topsoil shall be General Purpose Grade, Topsoil Characteristics of BS 3882: 2007 Specification for Topsoil. Soil shall be stored in heaps not exceeding 1.5 metres high. Heaps of reused or imported soil shall be graded to shed water and avoid ponding, maintained in a weed-free condition and protected from contamination or trespass by heavy machinery. Topsoil shall be lightly consolidated in layers not exceeding 150mm using track laying machinery. Works shall not be undertaken in periods of wet or frosty weather. All soils to be inspected prior to spreading. Imported soils are to have a certificate of analysis on suitability from an approved soil science laboratory, testing a 1kilo sample to every 500m3. Do not use topsoil contaminated with subsoil, rubbish or other materials that are corrosive, explosive, flammable, hazardous to human or animal life, detrimental to healthy plant growth. Give notice if any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported. Contamination levels to be in accordance with soil guidelines values for residential developments. Depths after firming and settlement (minimum): 450mm for shrub planting, 800mm for 6-8cm girth tree.

Cultivation
Top soil should not be compacted but broken up to a depth of 350mm, 450mm in shrub and hedge planting areas and 800mm in tree pits. Using suitable plant to loosen, aerate and break up the soil into particles of 2-8mm. Remove all weeds, perennial weed roots, stones with a diameter greater than 50mm and other extraneous material from the topsoil and off site. The topsoil shall be graded to remove minor hollows and ridges and bring it to a uniform and even grade at the correct finish level. The soil should be of a crumb structure. Do not compact. Do not dig or cultivate soil within root spread of trees and shrubs to be retained. Cultivation should be carried out a few days before planting in suitably dry conditions. If shrub planting is delayed and weed growth is active, areas shall be sprayed with an approved herbicide such as "Round-up" (or similar glyphosate week killer) a fortnight before cultivation takes place, and dead weeds removed prior to cultivation. All certification to be supplied in accordance with COSHH regulations prior to the commencement of the works.

Ameliorates
Fertiliser to be added to topsoil

Tree Pits
The depth of the excavated pit will be sufficient to accommodate the rootball and to obtain the correct planting depth. The natural thickening between the trunk and the root collar (root flare") shall be at the finished top surface of the planting medium. A straight edge placed across the pit at finished surface level and adjacent to the tree will assist in gauging the correct level. If necessary, the depth of the pit must be adjusted to ensure the correct planting level. The tree pit should be excavated to allow adequate clearance between the root ends (when fully spread) or the perimeter of the rootball and the side of the pit. Tree pits shall be circular with the exception of street tree planting pits, which will normally be rectangular. The soil level of the finished planting pit shall be 25mm below the surrounding ground level to create a water catchment area.

Should any tree pit, once excavated, prove to be too small to accommodate the rootball of the selected tree, the pit should be enlarged to easily accommodate the entire rootball; on no account must tree roots be trimmed or altered in order to be accommodated in any excavation. The base and the pit to be loosened to a depth of 150mm and the sides of the pit scarified. Ensure the bottom of the pit is level and remove any sharp objects from the sides. Trees are to be staked with one no. round pressure treated softwood stake, 75-100mm diameter pointed at one end and of a straight form. The stake is to be vertically driven into the bottom of the excavated pit by at least 300mm prior to planting and the tree secured to the stake immediately after planting. The tree shall be secured to the stake using one no. plastic buckle type adjustable tie and one plastic or rubber spacer per tie. Stakes must not chafe against any part of the tree and great care must be taken not to damage the roots during planting. Stakes to be approximately 600mm above ground level. All stakes to be sited on the windward side of the tree.

Nursery stock
All plants will be selected in accordance with BS3936:1992 *Specification for nursery stock, and Horticultural Trades Association (HTA) National Plant specification guidance* and trees selected in accordance with BS8545:2014 *Trees: from nursery to independence in the landscape.*
- All plants shall be clearly labelled with the botanical name of the plant; the suppliers name and other information.
- All plant species must be inspected upon delivery to the site, refer to BS8545:2014 for visual assessment of poor health in plants. Where significant disease or disorders are identified, the plant must be rejected and replaced by the nursery.
- Bare rooted plants will have protective wrapping removed and will be firmly heeled into a prepared trench and covered with topsoil.

Planting
- Planting will be carried out in the next available planting season. This usually runs from October to March, but is dependent on weather conditions. Container grown plants can be planted outside of this time providing adequate aftercare is provided.
- All plants to be laid out in position as per the Landscape plan and to the indicated density and quantities.
- Following pit excavation, the plants will be carefully placed into the hole with all roots spread out and any damaged roots pruned back to sound growth.
- A depth of 75-100mm of well composted wood chip mulch will be applied for the entire width of the pit around the base of each plant to form a continuous line of mulch along new planting areas.
- Suitable supporting systems will be installed on all new trees planted as specified by the landscape architect (Stake with Single tie).
- Hedges will be planted as specified by the landscape architect and will depend on the species type and the proposed width of hedgerows.

NORTH

Site boundary

Soft Landscape

Proposed Tree

Proposed Native Hedgerow Planting

Proposed Native Species Shrub Mix

Proposed Native Species Grass and Wildflower Meadow Mix
Emorsgate EM3 Mix 40kg/ha (4g/m^2)
Total Area: Approx. 0.0045ha

Year 1: Post seeding, mow 4 times per year to maintain a minimum height of 40-60mm. Remove arisings.

Season: April - October

Year 2 Onwards: Cut every 3 years, between October and February. Cutting to be done on a 3-year rotation, cutting 1/3 of area each year. Minimum cut height of 150mm. Remove arisings.
Frequency per annum: 1
Season: October - February

Hard Landscape

Permeable tarmac and stone as agreed with suitable base and top finish

Retained Existing Fencing 1.8m

0 5m 10m 15m 20m

REV	Date	Description	Drawn by
1	20/12/2022	General amendments	LJ

Base drawing:

Title:
Hard and Soft Landscape Plan

Stage:
Planning
Discharge

Client:
Portakabin

Project:
Manor Green College

Date: 30/11/2022
Drawn by: LJ
Authorised: SD

Drawing Number: 221142-TMA-ZZ-L-DR-1001
REV: 1
Scale: 1:200 @A1

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