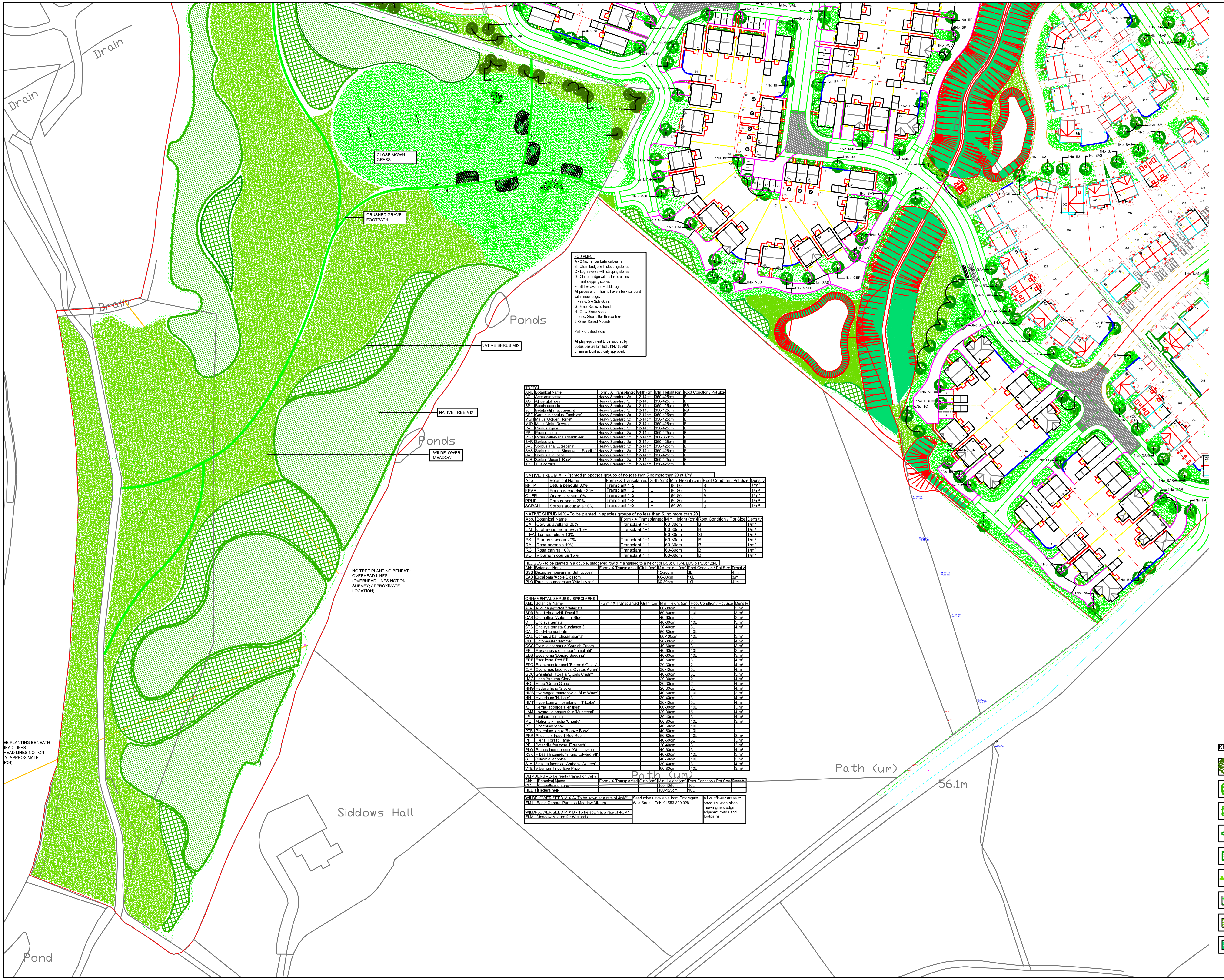

EQUIPMENT

A - 2 No. Timber balanca beams
B - Chain bridge with stepping stones
C - Log traverse with stepping stones
D - Clatter bridge with balance beans
and stepping stones
E - Stilt weave and wobble log
All pieces of trim trail to have a bark surround with timber edge.
F - 2 no. 5 A Side Goals
G - 6 no. Recycled Bench
H - 2 no. Stone Areas
I - 3 no. Steel Litter Bin c/w liner
J - 2 no. Raised Mounds

Path - Crushed stone

All play equipment to be supplied by Ludus Leisure Limited 01347 838461 or similar local authority approved.

TREES

Abb.	Botanical Name	Form / X Transplanted	Girth (cm)	Min. Height (cm)	Root Condtion / Pot Size
AC	Acer campestre	Heavy Standard: 3x	12-14cm	350-425cm	B
AG	Alnus glutinosa	Heavy Standard: 3x	12-14cm	350-425cm	B
BP	Betula pendula	Heavy Standard: 3x	12-14cm	350-425cm	RB
BJ	Betula utilis jacquemontii	Heavy Standard: 3x	12-14cm	350-425cm	RB
CBF	Carpinus betulus 'Fastigiata'	Heavy Standard: 3x	12-14cm	350-425cm	B
MGH	Malus 'Golden Hornet'	Heavy Standard: 3x	12-14cm	350-425cm	B
MJD	Malus 'John Downie'	Heavy Standard: 3x	12-14cm	350-425cm	B
PA	Prunus avium	Heavy Standard: 3x	12-14cm	350-425cm	B
PP	Prunus padus	Heavy Standard: 3x	12-14cm	350-425cm	B
PCC	Pyrus calleryana 'Chanticleer'	Heavy Standard: 3x	12-14cm	300-350cm	B
SAR	Sorbus aria	Heavy Standard: 3x	12-14cm	350-425cm	B
SAL	Sorbus aria 'Lutescens'	Heavy Standard: 3x	12-14cm	350-425cm	B
SAS	Sorbus aucup. 'Sheerwater Seedling'	Heavy Standard: 3x	12-14cm	350-425cm	B
SA	Sorbus aucuparia	Heavy Standard: 3x	12-14cm	350-425cm	B
SJR	Sorbus 'Joseph Rock'	Heavy Standard: 3x	12-14cm	350-425cm	B
TC	Tilia cordata	Heavy Standard: 3x	12-14cm	350-425cm	B

NATIVE TREE MIX - Planted in species groups of no less than 5 no more than 20 at 1/m²

Abb.	Botanical Name	Form / X Transplanted	Girth (cm)	Min. Height (cm)	Root Condtion / Pot Size	Density
BETP	Betula pendula 30%	Transplant 1+2	-	60-80	B	1/m²
FRAE	Fraxinus excelsior 30%	Transplant 1+2	-	60-80	B	1/m²
QUER	Quercus robur 10%	Transplant 1+2	-	60-80	B	1/m²
PRUP	Prunus padus 20%	Transplant 1+2	-	60-80	B	1/m²
SORAU	Sorbus aucuparia 10%	Transplant 1+2	-	60-80	B	1/m²

NATIVE SHRUB MIX - To be planted in species groups of no less than 5, no more than 20.

Abb.	Botanical Name	Form / X Transplanted	Min. Height (cm)	Root Condtion / Pot Size	Density
CA	Corylus avellana 20%	Transplant 1+1	60-80cm	B	1/m²
CM	Crataegus monogyna 15%	Transplant 1+1	60-80cm	B	1/m²
ILEA	Ilex aquifolium 10%	-	60-80cm	3L	1/m²
PS	Prunus spinosa 20%	Transplant 1+1	60-80cm	B	1/m²
RA	Rosa arvensis 10%	Transplant 1+1	60-80cm	B	1/m²
RC	Rosa canina 10%	Transplant 1+1	60-80cm	B	1/m²
VO	Viburnum opulus 15%	Transplant 1+1	60-80cm	B	1/m²

HEDGES - to be planted in a double, staggered row & maintained to a height of BSS: 0.15M, EDS & PLO: 1.2M.

Abb.	Botanical Name	Form / X Transplanted	Girth (cm)	Min. Height (cm)	Root Condtion / Pot Size	Density
BSS	Buxus sempervirens 'Suffruticosa'			15-20cm	3L	4/m
EAB	Escallonia 'Apple Blossom'			60-80cm	10L	3/m
PLO	Prunus laurocerasus 'Otto Luyken'			60-80cm	10L	4/m

ORNAMENTAL SHRUBS / SPECIMENS

Abb.	Botanical Name	Form / X Transplanted	Girth (cm)	Min. Height (cm)	Root Condtion / Pot Size	Density
AJV	Aucuba japonica 'Variegata'			60-80cm	10L	3/m²
BDR	Buddleia davidii 'Royal Red'			60-80cm	10L	3/m²
CAB	Ceanothus 'Autumnal Blue'			40-60cm	3L	3/m²
CT	Choisya ternata			40-60cm	10L	3/m²
CTS	Choisya ternata Sundance ®			30-40cm	3L	4/m²
CA	Cordyline australis			60-80cm	10L	-
CAE	Cornus alba 'Elegantissima'			80-100cm	10L	3/m²
CD	Cotoneaster dammeri			20-30cm	2L	4/m²
CCC	Cytisus scoparius 'Cornish Cream'			40-60cm	3L	3/m²
EEL	Elaeagnus x ebbingei ' Limelight'			40-60cm	10L	3/m²
EDS	Escallonia 'Donard Seedling'			40-60cm	10L	3/m²
ERF	Escallonia 'Red Elf'			40-60cm	3L	4/m²
ESQ	Euonymus fortunei 'Emerald Gaiety'			20-30cm	2L	4/m²
EJA	Euonymus japonicus 'Ovatus Aurea'			30-40cm	3L	4/m²
GDC	Griselinia littoralis 'Dixons Cream'			40-60cm	3L	3/m²
HAG	Hebe 'Autumn Glory'			20-30cm	2L	4/m²
HG	Hebe 'Green Globe'			20-30cm	2L	4/m²
HHG	Hedera helix 'Glacier'			20-30cm	2L	4/m²
HMB	Hydrangea macrophylla 'Blue Wave'			40-60cm	10L	3/m²
HH	Hypericum 'Hidcote'			30-40cm	3L	4/m²
HMT	Hypericum x moserianum 'Tricolor'			30-40cm	3L	4/m²
KJP	Kerria japonica 'Pleniflora'			60-80cm	10L	3/m²
LAM	Lavandula angustifolia 'Munstead'			20-30cm	5L	4/m²
LP	Lonicera pileata			30-40cm	3L	4/m²
MC	Mahonia x media 'Charity'			60-80cm	10L	3/m²
PT	Phormium tenax			40-60cm	10L	-
PTB	Phormium tenax 'Bronze Baby'			40-60cm	10L	-
PRR	Photinia x fraseri 'Red Robin'			60-80cm	10L	3/m²
PFF	Pieris 'Forest Flame'			40-60cm	5L	3/m²
PE	Potentilla fruticosa 'Elizabeth'			30-40cm	3L	3/m²
PLO	Prunus laurocerasus 'Otto Luyken'			40-60cm	3L	4/m²
RSK	Ribes sanguineum 'King Edward VII'			40-60cm	10L	3/m²
SJ	Skimmia japonica			40-60cm	10L	3/m²
SJA	Spiraea japonica 'Anthony Waterer'			30-40cm	3L	4/m²
VTE	Viburnum tinus 'Eve Price'			60-80cm	10L	3/m²

CLIMBERS - to be ready trained on trellis

Abb.	Botanical Name	Form / X Transplanted	Girth (cm)	Min. Height (cm)	Root Condtion / Pot Size	Density
CM	Clematis montana			100-125cm	10L	
HEDH	Hedera helix			100-125cm	10L	

WILDFLOWER SEED MIX A- To be sown at a rate of 4g/M².
EM1 - Basic General Purpose Meadow Mixture.

WILDFLOWER SEED MIX B - To be sown at a rate of 4g/M².
EM8 - Meadow Mixture for Wetlands

Seed mixes available from Emorsgate Wild Seeds. Tel: 01553 829 028

All wildflower areas to have 1M wide close mown grass edge adjacent roads and footpaths.

SPECIFICATION

GROUND PREPARATION - GENERAL

Preparing for topsoiling
Grading and cultivation shall be in accordance with BS 4428:1989 section 4.
Subsoil that is to receive topsoil shall, whether obviously overcompacted or not, be thoroughly broken up by hand, by heavy rotovator, by subsoiler or tined equipment with adequate passes made to thoroughly break up the surface to a depth of 150mm, cleared of all large stones, bricks, perennial weeds, tree roots (excluding living tree roots), coarse vegetation and other extraneous matter.

Subsoil grading
Subsoil shall only be graded after loosening as above, and this shall be undertaken by the use of a tractor and blade grader on large areas and by a small mechanical grader or by hand on small areas. Ground shall at no time be traversed by heavy machinery, for grading or any other purpose after subsoiling and/or topsoiling has taken place.

Making up levels
When subsoil is deposited in low lying areas to raise formation levels, it shall be lightly consolidated and left broken up ready to receive topsoil. Imported fill material shall be naturalsubsoil free from metal, concrete or organic material with any one dimension greater than 100mm. All imported fill material shall be approved by the Landscape Architect prior to spreading on site.

Supply of topsoil
Topsoil to be supplied shall be approved by the Landscape Architect and details of the source of supply shall be provided in order that inspection may be made before deliverycommences. Topsoil shall conform to BS 3882: 2007, Recommendations and classification for topsoil, clause 4.1a. The soil shall be free of weeds, roots or perennial weeds, pests, diseases, debris, tree roots, sticks, subsoil and foreign matter and shall be capable of being broken down to a fine tilth.

Temporary topsoil heaps
The depositing of temporary heaps of topsoil shall be so arranged that possible damageto existing grass, plants, tarmacadam, paving etc, is avoided. Unless otherwise agreed bythe Landscape Architect, temporary spoil heaps shall be on protected ground, Such protection shall take the form of tarpaulins, plastic sheets, boards or similar covering, If damage does occur, it shall be made good at the contractor's own expense. Areas excavated to receive topsoil but have not had the base loosened shall not be used as temporary off loading areas. If the bottom of the excavation has been loosened off, loading on these areas is permissible.

Spreading topsoil
Prior to topsoil replacement the formation level shall be cleared of all stones, rubbish, debris with any one dimension greater than 75mm. Areas to be seeded or turfed shall be covered by topsoil 100mm thick and areas to be planted shall be covered by topsoil 400mm thick ,Topsoil shall be spread in an evenly consolidated layer and shall be left cleared of all roots, stones and debris with any one dimension greater than 50mm throughout its depth. Unless otherwise stated the finished level shall be 25mm above adjacent hard areas. No topsoil shall be spread until the subsoil grade has been inspected by aLandscape Architect.

PLANTING

Cultivation
Planting areas shall be rotovated to a depth of 225mm in the original ground, or where the ground is compacted, ripped and rotovated.

Pick off stones, bricks, timber and all other debris arising which have any dimensions greater than 50mm and remove off site to tip. Do not cultivate across any drain where the stone is flush with the ground surface.

Soil Improvers
Where directed composts, fertilisers or other additives shall be incorporated into the soil.

Spent mushroom compost or similar shall be spread to the specified thickness and incorporated, by rotovating, into the top 150mm.

Fertilisers, organic or inorganic, shall be raked into the top 25mm.

Rejection of plants
All plant material should comply with the minimum requirements in BS 3936:part 1, specification for trees and shrubs and part 4, specification for forest trees; BS 4043, recommendations for transplanting semi-mature trees and BS 5236 recommendations for cultivation and planting trees in the advanced nursery stock category. Any plant material, which in the opinion of the Landscape Architect, does not meet the requirements of the Specification, or is unsuitable, or defective in any other way, will be rejected. The minimum specified sizes in the plant schedule will be strictly enforced. The contractor shall replace all plants rejected at his own cost.

Planting
All plant material shall generally be planted between November and March in open cool weather. Planting shall not take place in frosty, snowy or waterlogged conditions. Where approved, pot or container grown plants may be planted outside the described season, but adequate watering shall be supplied. Torn or damaged roots and branches shall be cleanly pruned prior to planting.

Planting of whips, transplants and shrubs
The nature of the material to be planted is variable and the contractor shall allow for planting to be properly carried out in all cases as described in BS 4428: 1989 section 7 Amenity tree planting, section 8 Woodland planting and section 9 Planting of shrubs, herbaceous and bulbs. All plants shall be planted at same depth, or very slighly deeper, as they were grown.Roots shall not be bent, broken or forced into inadequate pits or notches. Plants shall be upright, firmed in and wind resistant, with no air pockets around roots. All pots and root wrappings shall be carefully removed prior to planting. All pots and wrappings arising shall immediately be picked up and stored ready for removal to tip. Plants shall be planted at thespecified centres. On steep slopes this shall be in the horizontal measure.

Tree planting
Trees shall conform to BS 3936 and be planted in tree pits of the following sizes unless directed otherwise:
Feathered trees 900 x 900 x 450 up to 3 metres high (0.36m)
Selected standards 1000 x 1000 x 600 up to 4.25 metres high (0.60m)
Heavy standard/Extra heavy standards 1200 x 1200 x 600
Excavated subsoil or stone shall be carted off site to tip. The bottom 250mmof the pit shall be dug and broken up. Backfill shall be imported topsoil as specified unless directed otherwise.

Compost for planting pits
Compost shall be a proprietary product, bark basedincorporating fertilisers and improving additives. The type of compost shall be approved before its delivery on site, and the details of the product shall be supplied. Cambark planting compost isapproved. Where directed compost shall be added to and mixed with topsoil backfill at the following rates:
Feathered trees - 1 bag: 80 litres
Selected standards - 1.5 bags: 120 litres
Heavy standard/Extra heavy standards - 2 bags: 160 litres

Stakes for trees
Stakes shall be peeled round softwood, pointed or minimum diameter 75mm. The stakes shall be driven into the base of the tree pit prior to placing the tree and backfilling.
Stakes shall in general have a clear height above the finished ground level as follows unless directed otherwise:
Feathered trees - 750mm (one tie)
Selected standards - 900mm (2 stakes, one tie each)
Heavy standard/Extra heavy standards - 1200mm (2 stakes, one tie each)
The stake shall be long enough to drive until they hold the tree firmly without rocking.

Tree ties
Ties shall be approved nail-on type with cushioned spacer such as Toms, or other equal and approved. Nails shall be flat headed galvanised and shall hold the ties securely into the stake. Ties shall not be over tight on the tree stems, Ties available from J Toms Limited, Wheeler Street, Headcorn, Ashford, Kent, TN27 9SH.
Feathered Type 04
Select standards Type L1
Heavy standard/Extra heavy standards Type L3

Planting of trees
The tree shall be set upright and at the same depth as grown in the nursery, the roots shall be spread out and the topsoil, or compost/topsoil mixture, backfilled, Backfilling should be done to ensure close contact between roots and by firming in layers. The soil shall be left level and tidy, any subsoil clods, bricks or stones over 50mm arising, collected and carted off site.

Mulching
A 75mm compacted layer of medium grade pulverised bark, with a particle size of not more than 100mm and containing no more than 10% fines, shall be spread to form a continuous layer covering the whole of the bed, or in the case of standard trees shall be in the form of a circle of 600mm diameter around the base of the tree. Whips and transplants shall be mulched in the form of a 300mm diameter circle around the base of the tree. This is to be maintained up until the sale of the house.

TURFING

Soil preparation and cultivation
All areas to be turfed shall be cultivated to a depth of at least 100mm, all weeds, stones and refuse larger than 50mm shall be removed to Contractor's tip, and shall be brought to a fine tilth. Allow for hand cultivation where machine work is not possible.

Turf
Turf shall be extra-quality meadow turf and shall comply to BS 3969 and shall be laid in accordance with BS 4428 section 6, Turfing. The contractor shall supply a sample of the turf he proposed to use for approval of the Landscape Architect and shall ensure that all turves are similar to the approved sample. The Contractor shall inform the Landscape Architect of the location of the supply, so that turf can be inspected prior to lifting.

Season
Turf shall be laid when weather and soil conditions are suitable and, where possible, preference should be given to autumn and early winter operations. No turf shall be laid in exceptionally dry or frosty weather or in other unsuitable weather conditions.

Delivery and stacking
For large areas, turf shall be delivered at appropriate intervals throughout the work so as to avoid stacking for long periods.

Laying
No turf shall be laid until the soil preparation has been satisfactorily completed by being brought to an even tilth and firmness. Turves from the stack shall be wheeled to turf layers on planks laid closely side by side. Adequate timber planks shall be used to support operatives and barrows, and provide access. The turves shall be laid in consecutive rows with broken joints (stretcher bond), closely butted and to the correct levels. The turf shall be laid off planks working over turves previously laid. Where necessary, the turves shall be lightly and evenly firmed with wooden beaters, the bottom of the beaters being frequently scraped clean of accumulated soil or mud. A dressing of finely sifted topsoil shall be applied and well brushed into the joints. Any inequalities in finished levels owing to variation in turf thickness or uneven consolidation of soil shall be adjusted by raking and/or packing fine soil under the turf. A roller shall not be used. The finished levels of the turf shall conform to the levels indicated, allowing for final settlement. Turf edges and margins shall be laid with whole turves. Turves adjoining buildings, walls or fences shall be taken to the face of the structure, giving complete soil cover.

Laying around trees
Turf shall not be laid to within 300mm of any tree trunk.

Watering
The Contractor shall be responsible for the replacement of any scorched turf. All necessary watering shall be carried out with sprinklers or oscillating sprays so as not to wash soil out of joints. If shrinkage occurs and the joints open, fine topsoil shall be brushed in and well watered.

GRASS SEEDING AND MAINTENANCE

Soil Preparation and Cultivation

Final grading of topsoil shall be agreed by the Landscape Architect before cultivation and seeding. All areas to be seeded shall be cultivated to 150mm depth and all weeds, stones, and refuse larger than 50mm shall be removed to tip. Cultivated soil shall be rolled and raked to produce a tilth 25mm deep. Allow for hand cultivation where machine work is not possible. Seed sowing must immediately follow the preparation of the seed bed.

Seeding

Sowing shall be carried out during calm weather. All sowing is at the contractor's own risk and any areas where germination fails shall be re-seeded at the contractor's own expense.

The operation should be carried out in equal sowings and transverse directions and the seed shall be raked or harrowed in. Sowing shall be at the rate of 20 grammes per sq.m.

Seed Mix

The seed mix shall be A22 mix, obtainable from British Seed Houses Limited.

Grass seed shall be of the composition, purity and germination as specified in BS;4428; 1989. Certificates of purchase shall be provided for all deliveries prior to the sowing of grass seed stating source, mixture, purity and germination percentage.

Alternative cultivars of the above species may only be used if approved by the landscape architect.

Protection of Newly Seeded Areas

All reasonable precautions shall be taken to ensure that pedestrian and other traffic does not cross the grass areas during cultivation, seeding or until grass is established. Where obvious 'Short cutting' is occurring, the contractor shall erect an approved temporary fence so as to minimise the maintenance period or until such time as it is no longer necessary, or as directed.

First Cut

When the grass is 100mm high, it shall be cut down to 50mm so as to avoid root pulling. If the grass has been allowed to grow any longer than 100mm then the cuttings shall be raked off and taken off site.

Second Cut

When the grass is 65mm high a second cut shall be carried out using a rotary mower. No more than one third of the foliage must be removed.

Subsequent Cuts

Thereafter, when the grass grows to 100mm high, it shall be cut down to 50mm with a flail type mower, until the end of the maintenance period, or longer if so directed. The grass shall be cut on a regular basis if so directed.

Making Good

Any defects such as shrinkage, ponding, sparse germination or disease shall be made good and re-seeded all as above.

Damage to Existing Grass

The contractor will be responsible for cultivating, seeding and maintaining, as above all areas of existing turf that are damaged during the course of the works for reasons of storage, working areas, transport of materials excepting those areas which are specifically defined and measured in the contract.

Any areas, which in the opinion of the Landscape Architect, are consolidated during the course of these works, shall be loosened with a ripper or other suitable implement to ensure adequate drainage through the sub soil (see clause B.6)

WILDFLOWER MEADOW SEEDING

Sub-soil Preparation and Cultivation

After final grading has been agreed by the Landscape Architect the area to receive seed shall be subsoil ripped to a depth of 300mm.

The area shall then be cultivated to 150mm depth and all weeds, stones and refuse larger than 50mm shall be removed to tip. Cultivated soil shall be rolled and raked to produce a tilth 25mm deep. Seed sowing must be undertaken immediately after seed bed preparation. Seed shall be sown during late August or September or, if this is not possible, during April to May.

Wildflower Seeding

Sowing shall be carried out during calm weather. All sowing is at the Contractor's own risk and any areas where germination fails shall be re-seeded at the Contractor's own expense. The operation should be carried out in equal sowings and transverse directions. The Contractor must ensure that the grass and wildflower seed is thoroughly mixed throughout sowing. Each seed mix shall be sown at the rate of 5 grammes per sq.m and then raked into the soil surface and lightly rolled.

Wildflower Seed Mix

Sow **EM1** (wildflower seeding) and **EM8** mix for seasonally flooded lowlands (wetland wildflower meadow). Available from Emorsgate. Certificates of purchase shall be provided for all deliveries, prior to the sowing of the wildflower mix, stating source mixture, purity and germination percentage. Sources must be of indigenous stock.

Protection of Newly Seeded Wildflower Areas

All reasonable precautions shall be taken to ensure that pedestrian and other traffic does not cross the wildflower areas during cultivation, seeding or establishment. Where obvious short cutting is occurring, the Contractor shall erect an approved temporary fence so as to minimise the maintenance period or until such time as it is no longer necessary, or as directed.

First Cut of Wildflower Meadow

Areas seeded during August to September shall be cut in the spring using a flail mower, or strimmer, when the meadow reaches a height of 100mm. Areas seeded during April to May shall be cut in late August when flowering is over. In both cases, all cuttings shall be raked up and removed from site.

Subsequent Cuts

Hereafter cutting shall be undertaken, with a flail mower or strimmer, annually during September. All cuttings shall be raked up and removed.

Making Good

Any defects such as sinkage, ponding, sparse germination or disease shall be made good and re-seeded all as above.

MAINTENANCE
All maintenance to be carried out up to handover to the adopting authority/ householder from the date of planting and turfing to ensure successful establishment. All dead, diseased, damaged plants must be replaced during this time unless the local Planning Authority states, in writing, any variation to this.

Weeding
All beds to be kept weed free by cultivating and by using approved herbicides. Beds to be forked over as necessary to keep soil loose to approved cambers with no hollows.

Pruning
At appropriate time, prune plants to remove dead, dying or diseased wood and suckers to promote healthy growth and natural shape.

Watering
The Contractor shall ensure that sufficient water is applied to maintain healthy growth.

Litter
Site to be kept free of litter.

Grass cutting
The initial cut shall be carried out when first growth is apparent, blades set 20mm above ground. The Contractor shall continue cutting at appropriate intervals during the growing season and maintain 40mm high sward until grass areas are handed over. Watering, weeding, cutting, repair of all erosion and settlement and re-seeding as necessary to establish a uniform and healthy stand of grass shall continue until handover to the householder.

KEY

- PROPOSED TREES
- NATIVE TREE MIX
- NATIVE SHRUB MIX
- PROPOSED HEDGE
- ORNAMENTAL SHRUB BED
- CLIMBERS
- CLOSE MOWN GRASS
- WILDFLOWER MEADOW MIX A
- WILDFLOWER MEADOW MIX B

	Date	Rev
Amends to footpaths	Dec 12	C
Amends to boundary	Dec 12	B
Amends to latest layout and clients comments	Dec 12	A

No dimension to be scaled from this drawing
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Landscape Architecture
Arboriculture

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Project
HENTHORN ROAD, CLITHEROE

TAYLOR WIMPEY

Title
LANDSCAPE STRUCTURE PLAN
(2 of 3)

Date	Scale(s)	Dwg no	Rev
01.11.12	1:500 @ A0	4271.05	C

Dwn NF/HS
Chkd JW