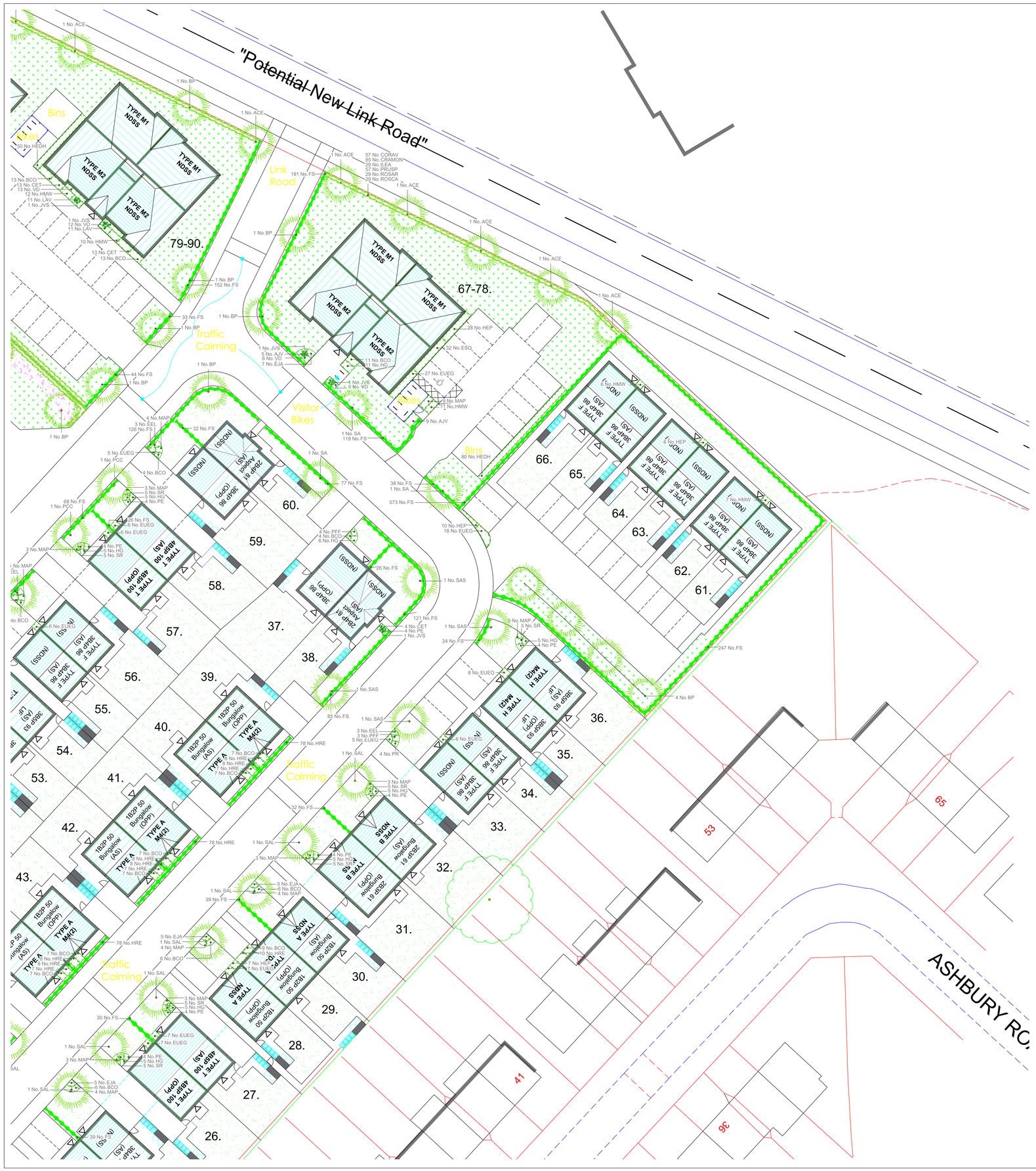


Proposed semi mature tree planting

Proposed heavy standard tree planting

Proposed native hedge planting

Proposed hedge planting

Proposed ornamental shrub planting

Grass - turf

Amenity grassland, species rich turf.
WFT-Species-Rich-26 available from
wildflowerturf.co.uk/products/establishanewhabitat/wildflower-turf/species-rich/

Emorsgate EM2 wildflower meadow

Plant schedule

Trees

| Abbreviation | Species | Height | Girth | Specification | Pot Size | Number of Plants |
|---|---|---|---|---|---|---|
| ACE | Acer campestre | 350-425cm | 12-14cm | Heavy Standard | 3x B | 8 - |
| ACST | Acer campestre 'Street Wise' | 350-425cm | 12-14cm | Heavy Standard | 3x B | 4 - |
| BP | Betula pendula | 350-425cm | 12-14cm | Heavy Standard | 3x RB | 17 - |
| BJ | Betula utilis jacquemontii | 350-425cm | 12-14cm | Heavy Standard | 3x RB | 4 - |
| MS | Malus sylvestris | 350-425cm | 12-14cm | Heavy Standard | 3x B | 4 - |
| PAP | Prunus avium 'Plena' | 350-425cm | 12-14cm | Heavy Standard | 3x B | 2 - |
| PCC | Pyrus calleryana 'Chanticleer' | 300-350cm | 12-14cm | Heavy Standard | 3x B | 8 - |
| SJR | Sorbus 'Joseph Rock' | 350-425cm | 12-14cm | Heavy Standard | 3x B | 6 - |
| SAL | Sorbus aria 'Lutescens' | 350-425cm | 12-14cm | Heavy Standard | 3x B | 8 - |
| SAS | Sorbus aucup. 'Sheerwater Seedling' | 350-425cm | 12-14cm | Heavy Standard | 3x B | 7 - |
| SA | Sorbus aucuparia | 350-425cm | 12-14cm | Heavy Standard | 3x B | 14 - |
| BP | Betula pendula | min. 450cm | 30-35cm | Semi mature | 4x | RB 6 - |
| PA | Prunus avium | min. 450cm | 30-35cm | Semi mature | 4x | RB 4 - |
| | | | | | | Total :92 - |

Native Hedge Mix - To be planted in a double, staggered row, randomly mixed

| Abbreviation | Species | Mix Species Contribution | Specification | Height | Pot Size | Density | Number |
|---|---|---|---|---|---|---|---|
| CORAV | Corylus avellana | 20% | Transplant 1+1 Planted randomly in a double staggered row | 60-80cm | B | 6/m | 383 - |
| CRAMON | Crataegus monogyna | 30% | Transplant 1+1 Planted randomly in a double staggered row | 60-80cm | B | 6/m | 571 - |
| ILEA | Ilex aquifolium | 10% | Planted randomly in a double staggered row | 60-80cm | SL | 6/m | 193 - |
| PRUSP | Prunus spinosa | 20% | Transplant 1+1 Planted randomly in a double staggered row | 60-80cm | B | 6/m | 383 - |
| ROSAR | Rosa arvensis | 10% | Transplant 1+1 Planted randomly in a double staggered row | 60-80cm | B | 6/m | 193 - |
| ROSCA | Rosa canina | 10% | Transplant 1+1 Planted randomly in a double staggered row | 60-80cm | B | 6/m | 193 - |
| | | Total :100% | | | | | Total :1916 - |

Hedges

| Abbreviation | Species | Specification | Height | Girth | Pot Size | Density | Number of Plants |
|---|---|---|---|---|---|---|---|
| FS | Fagus sylvatica | Double staggered row | 60-80cm | | B | 6/m | 4631 - |
| HRE | Hebe albicans 'Red Edge' | Single row | 25-30cm | | 5L | 6/m | 437 - |
| | | | | | | | Total :5068 - |

Shrubs

| Abbreviation | Species | Height | Pot Size | Density | Number of Plants |
|---|---|---|---|---|---|
| AJV | Aucuba japonica 'Variegata' | 40-60cm | 5L | 4/m² | 26 - |
| BCO | Bergenia cordifolia | 20-30cm | 3L | 6/m² | 300 - |
| CET | Ceanothus thyrsiflorus repens | 20-30cm | 3L | 6/m² | 62 - |
| EEL | Elaeagnus x ebbingei 'Limelight' | 40-60cm | 5L | 4/m² | 16 - |
| EJA | Euonymus japonicus 'Ovatus Aureus' | 30-40cm | 3L | 6/m² | 65 - |
| ESQ | Euonymus fortunei 'Silver Queen' | 30-40cm | 3L | 6/m² | 32 - |
| EUEG | Euonymus fortunei 'Emerald Gaiety' | 20-30cm | 3L | 6/m² | 234 - |
| HEDH | Hedera helix | 40-60cm | 3L | 6/m² | 193 - |
| HEP | Hebe pinguifolia 'Pagei' | 30-40cm | 3L | 6/m² | 108 - |
| HG | Hebe 'Green Globe' | 30-40cm | 3L | 6/m² | 94 - |
| HMW | Hebe 'Mrs Winder' | 30-40cm | 3L | 6/m² | 159 - |
| HRE | Hebe albicans 'Red Edge' | 30-40cm | 3L | 6/m² | 78 - |
| LAV | Lavandula angustifolia 'Vera' | 30-40cm | 3L | 6/m² | 45 - |
| MAP | Mahonia aquifolium 'Apollo' | 30-40cm | 3L | 6/m² | 69 - |
| PE | Potentilla fruticosa 'Elizabeth' | 30-40cm | 3L | 6/m² | 70 - |
| PFF | Pieris 'Forest Flame' | 40-60cm | 5L | 4/m² | 30 - |
| PR | Potentilla fruticosa 'Red Ace' | 30-40cm | 3L | 6/m² | 18 - |
| SR | Skimmia japonica 'Rubella' | 30-40cm | 3L | 6/m² | 63 - |
| VD | Viburnum davidii | 30-40cm | 3L | 6/m² | 135 - |
| | | | | | Total :1797 - |

Specimens

| Abbreviation | Species | Specification | Height | Pot Size | Density | Number of Plants |
|---|---|---|---|---|---|---|
| JVS | Juniperus virginiana 'Skyrocket' | | 60-100cm | 7.5L | Counted | 7 - |
| | | | | | | Total :7 - |

## 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 the following minimum depths; 350mm for grass seed, wildflower seed and turf; 300mm for shrubs and hedges; 600mm for standard trees. Subsoil shall be 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**
Where subsoil 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 natural subsoil free from metal, concrete or organic material with any one dimension greater than 100mm. All imported fill material shall be approved by suitably qualified person prior to spreading on site.

**Supply of topsoil**
Topsoil to be supplied shall be approved by suitably qualified person and details of the source of supply shall be provided in order that inspection may be made before delivery commences.Topsoil shall conform to BS 3882: 2015, 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.The developer/contractor should satisfy themselves that where topsoil is imported that this should be in accordance with BS 3882:2015. Appropriate testing shall be undertaken and test certificates shall be provided.

**Temporary topsoil heaps**
The depositing of temporary heaps of topsoil shall be so arranged that possible damage to existing grass, plants, tarmacadam, paving etc, is avoided. Unless otherwise agreed by suitably qualified person, 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 permissable.

**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 300mm 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 a suitably qualified person.

### 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 3936-1: 1992 Specification for trees and shrubs and BS 3936-4: 2007 Specification for forest trees. Any plant material, which in the opinion of a suitably qualified person, 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**
Pit sizes for whips, transplants and shrubs are 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 slightly 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. Plants shall be planted at the specified centres. On steep slopes this shall be in the horizontal measure. Transplants shall be planted with spiral guard and cane to protect from rabbits and to hold the plant securely.
Plants forming a hedge shall be cut by one third immediately upon completion of planting. 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.

**Tree planting within soft landscape areas**
Trees shall conform to BS 8545:2014 Trees: from nursery to independence in the landscape and BS: 3936-1: 1992 and be planted in tree pits of the following sizes unless directed otherwise:
Feathered trees - 900 x 900 x 450
Selected standards - 1000 x 1000 x 600
Heavy standards/Extra heavy standards - 1200 x 1200 x 600
Excavated subsoil or stone shall be carted off site to tip. The bottom 300mm of the pit shall be dug and broken up. The bottom of the pit shall be backfilled with subsoil (site or imported) to comply with BS 8601: 2013. The top 300mm of the pit shall be backfilled with imported topsoil as specified unless directed otherwise.

**Compost for planting pits**
Compost shall be a proprietary product, bark based incorporating 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 is approved. Where dry-block compost shall be added to and mixed with topsoil backfill at the following rates:
Feathered trees - 40 litres
Selected standards - 60 litres
Heavy standards/Extra heavy standards - 80 litres

**Stakes for trees**
Stakes shall be peeled round softwood, pointed, 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 standards/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 for barewood trees, shall be approved rubber nail-on type with cushioned spacer such as Toms, or other equal and approved. Nails shall be flat headed galvanised and shall not damage 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 Tyes - 24 (one tie)
Select standards - Type L1 (one tie per stake)
Heavy standards/Extra heavy standards - Type L3 (one tie per stake)

Ties for roofball and container grown trees shall be 50mm rubber tree bells in a figure of eight around the tree. Fixed to the stake with two flat head galvanised nails.
Feathered - one belt
Select standards Type - two belts
Heavy standards/Extra heavy standards - two belts

**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 (bareroot) and the suoil followed by compost topsoil mixture, backfilled. Backfilling should be done to ensure close contact between roots and by firming in layers (bareroot). 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 within grass 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. Where trees are planted within grass a circular hemp mulch mat is required beneath the layer of mulch at the diameters stated above, secured with fixing pegs. The tree pit surface shall be as big as possible.

### 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: 1998 +A1: 2013 and shall be laid in accordance with BS 4428: 1998, section 6, Turfing. The Contractor shall supply a sample of the turf he proposed to use for approval of a suitably qualified person and shall ensure that all turves are similar to the approved sample. The Contractor shall inform a suitably qualified person 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.

### PROTECTION TO EXISTING TREES

The recommendations in BS 5837: 2012, *Trees in Relation to Design, Demolition & Construction* must be complied with at all times.

### 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 hand weeding. 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.

### WILDFLOWER GRASS SEEDING & MAINTENANCE

***Preparation for seeding***
Seed should be sown into good quality, clay free sub-soil or low-fertility topsoil.
The area shall be cultivated to 150mm depth and all weeds, stones and refuse larger than 50mm shall be removed to tip (Cultivation of soil not to occur beneath existing tree canopies). Cultivated soil shall be rolled and raked to produce a tilth 25mm deep and left for 2-3 weeks to allow existing weeds in the seed bank to germinate. After 2-3 weeks, a spray off of the newly germinated weeds will be carried out, allowed to die back and then raked off. Seed sowing must be undertaken immediately after the area has been prepared and weeds removed, lightly watering area before seeding. 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 should ensure that seed and wildflower seed is thoroughly mixed throughout sowing. The seed mix shall be sown at the rate specified by the manufacturer and then raked into the soil surface and lightly rolled.

***Wildflower seed mix***
Sow the wildflower seed available from Emorsgate Wild Seeds. 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 lightly in the March using a flat mower, or strimmer, when the meadow reaches a height of 100mm. Areas seeded during April to May shall be cut in October when flowering is over. In both cases, all cuttings shall be raked up and removed from site.

***After the first year of management.***
After year one all the wildflower meadow areas on the site should be cut twice annually once in March and once in September when flowering is over, using a flail mower or strimmer. In both cases all the cuttings shall be raked and removed from site. This prevents nutrients building up in the soil which encourage weed species and discourage wildflowers. The timing of the cuts should be as above but will be dependent on the presence of any wildflowers in the sward; cutting should not take place until after the desirable species have set and dispersed seed

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

Scale Bar 1:200
0 4m 8m 12m 16m 20m

No dimension to be scaled from this drawing
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Landscape Architecture

Trevor Bridge Associates Ltd
Ashton Old Baths
Stamford Street West
Ashton-under-Lyne
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Tel: 0161-804 2099
E-mail: info@trevorbridge.co.uk

Project
SOUTHDEAN ROAD, KNOWSLEY

BRECK HOMES LIMITED

Title
LANDSCAPE PROPOSALS
SHEET 2 OF 3

| Date | Scale(s) | Dwg no | Rev |
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